December 30, 1920

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Engineering News-Record

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Building New Penstock for Big Creek Plant No. 2, California

In This Issue:

A New York tunneling and foundation expert, both engineer and contractor; a hydraulic engineer of the Geological Survey; the bridge engineer of the Wisconsin Highway Commission; a well-known educator, life student of public utility problems; the city engineer of Pasadena, Cal. —specialists in many fields come together in preparing the following outstanding features of this issue:

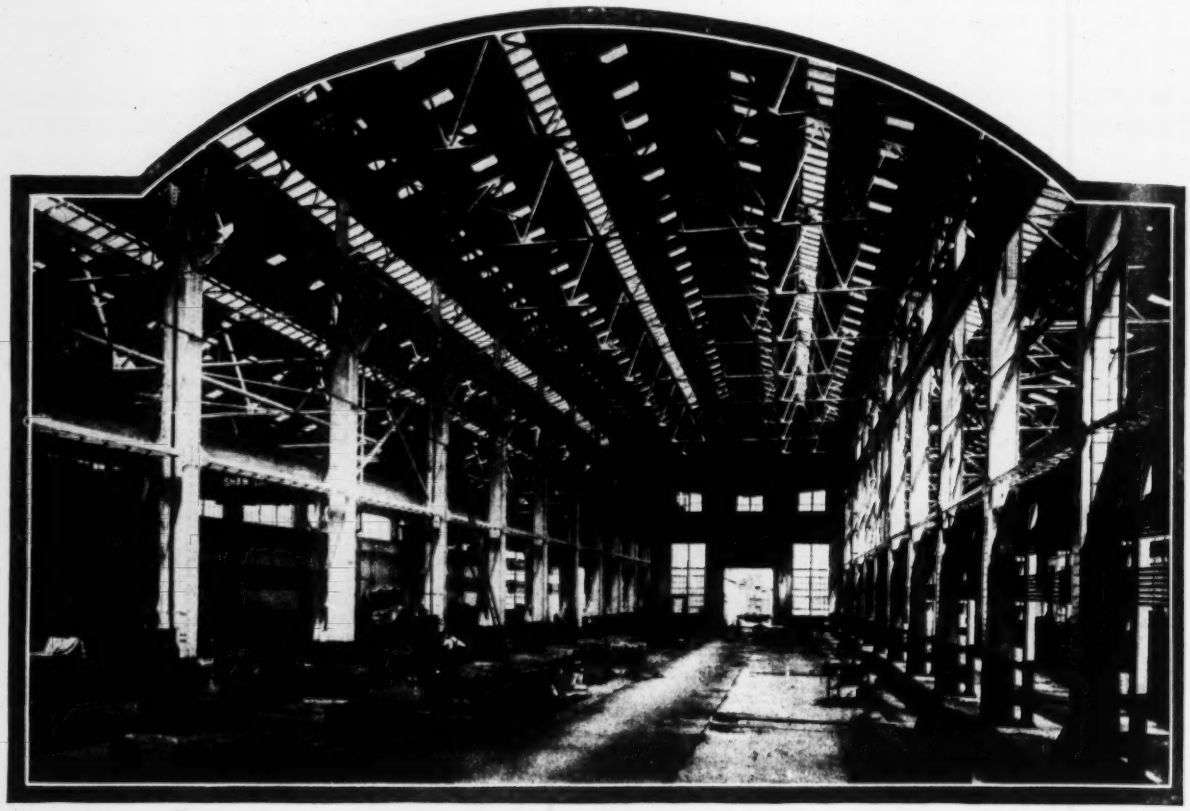
Division of Irrigation Water Between the United States and Canada
By Benjamin E. Jones

Test of Trent Activated Sludge Devices at Pasadena
By R. V. Orbison

Bituminous Surfacing for Plank Highway Bridge Floors
By M. W. Torkelson

Borrowing Power and a Fair Return for Public Utilities
By W. G. Raymond

Earth in Foundations Considered as an Elastic Solid
By Lazarus White



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ENGINEERING NEWS-RECORD

DEVOTED TO CIVIL ENGINEERING
AND CONTRACTING

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Engineers in Port Planning

IN SPITE OF such attempts to relegate the engineer to a position as day laborer under the "practical" shipping man, as that recently made by Director Sproule, of Philadelphia's Department of Docks, the place of the engineer in harbor-terminal planning is firmly established by results in ports where he is the directing mind. Elsewhere in this issue is published a discussion, by an engineer, on the type of harbor planning that will be necessary to maintain supremacy in world trade. Here Colonel Wilgus ably demonstrates the vital importance of engineering considerations, as opposed to political and "practical" shipping considerations. Following Colonel Wilgus' paper appears the "policy" of the Port Development Commission of Baltimore, of which an engineer is chairman. At the port of New York policies are not now guided by engineers but by politicians and "practical" shipping men, with results that have made local port conditions the subject of national criticism. The policy of the Baltimore commission is so broad and clear that we publish it in full. Incidentally it emphasizes the dominance of the engineer in port planning.

Rental Charges for Equipment

DISPUTE invariably arises between engineers and contractors whenever there is occasion to determine rental charges for construction equipment. The engineer prone to regard averages as representing the facts, the contractor knowing that an average may represent a profit under one condition and a loss under another condition and neither being in possession of authoritative records of either extremes or averages, there is naturally a broad field for battle. Particular value, therefore, lies in the schedule of rental charges published on page 1288, which has been worked out after almost two years' study by the Associated General Contractors of America. There are few records of construction data which have been subjected to a more general and at the same time a more detailed scrutiny, item by item, than has this schedule which is now made public. It is therefore, definitive, as far as such lists of figures may be. There can never be, however, a final set of averages nor a set of averages which will apply under all conditions. These are facts which engineers and contractors must always keep in mind and be prepared to modify the schedule values as sound judgment, taking into consideration the attending circumstances, may dictate.

Protecting Roads in Spring

NOT so long ago highway officials felt that they were helpless to keep heavy traffic off the highways during the spring break-up. Their ideas, however, have changed radically within two years. What was regarded an impossibility in 1917 is established practice in some states now, while universally there is insistence that powers be given the state highway departments and to county officials to keep heavily loaded vehicles off the less-well surfaced highways during the period when the frost is coming out of the ground. The matter needs fresh and urgent consideration at the present time because most of the state legislatures will be in session this winter and the powers needed by the highway officials to protect the public's investment in roads can be secured. The highway sentiment is so strong at the present time that there is no difficulty in convincing a legislature that the community's investment should not be ruthlessly destroyed during the two or three short weeks of post-winter subgrade softening. The sort of enabling legislation should be extremely broad, merely conferring on the appropriate officials power to make such regulations as in their judgment are necessary to preserve the integrity of the roads at this critical period. If there be those who oppose the legislation they should be very ruthlessly exposed. No matter how great their seeming influence, they cannot withstand a plain statement of the primary rights of the community. The public is prepared to support sound highway policy.

Study of Ethics

AS ONE of the last items of the year's news concerning professional development comes the announcement that two national societies will co-operate in the attempt to write a new code of ethics. The American Society of Civil Engineers has just appointed a committee to co-operate with a committee of the mechanical engineers in the work. We welcome the attempt as a hopeful sign of progress, not because it will produce the best code of ethics—or indeed any code whatever—but because it will increase the thought which engineers of many pursuits will devote to the ethics of their relation to public and to colleagues. It is inevitable that each one of these engineers will, by virtue of such reflection, become more keenly conscious of the special public trust with which he is charged by virtue of his profession's place in community existence. So, even without the production of a code—and only a few weeks ago we stated our belief that civil and mechanical engineers can not easily find common ground for conclusions on professional ethics—co-operative study of the subject will yield benefit to the public as well as to the profession, by quickening the professional conscience and recognition of the duty of service. Beyond this, however, it is broadly true that any movement which aims to re-formulate basic principles of just conduct is of very special value at the present time. And, as the engineer's objective attitude is most essential to the world's reconstruction, it is fitting indeed that his profession should be among the first to enter upon this work of leadership.

Engineering and a Naval Base

WITH the selection of the site for a naval base the engineer as a rule has little to do. Leaving aside some elementary precautions as to foundations, the engineer will be able generally to build such a base wherever the military authorities decide is proper from the viewpoint of policy and strategy. This is not true of the San Francisco repair and supply base, the alternative locations of which are noted in the article on another page. Here the military requirements are equally, or almost equally, satisfied in any one of three locations and the proper selection unquestionably hinges on engineering details. The brief résumé of the advantages of the respective sites were much amplified in the hearings before the congressional committee, which must make the ultimate decision, but the publicity which has been given those hearings in the West does not, in our opinion, emphasize as it should the one superior quality that Mare Island possesses. That is the utilization of the costly and complete equipment of the Navy Yard existing there. Our naval authorities assert that speed in the construction of the new base is essential, if our Pacific naval policy is to be continued, and yet the advocates of San Francisco and Alameda would virtually scrap the Mare Island yard and proceed to the duplication of the most part of its equipment which will be necessary for the new base. Some years ago the channel defects at Mare Island were urged against it. Today those criticisms have been answered. Foundation difficulties at Alameda are great; San Francisco itself is ill-advised in wanting to give over for all time a large part of its not too long shore line, which, with Boston and Brooklyn before it as examples, it should want to reserve for commercial use. Mare Island and Vallejo, with no voters to speak of, can only stand on the engineering merits of their claim for preference. It will be interesting to see how much influence they have on the congressional committee.

Safety Factors for Columns

SOME recent Bureau of Standards studies of spruce struts afford a new demonstration of the fact that well-executed breaking tests of columns plot very satisfactorily in curves of the Rankine-formula type. The same fact has been shown to hold for other brittle materials—and when column behavior is in question, wood must be classed as a brittle material, since it lacks plasticity. Tests of steel and wrought-iron columns follow the same law fairly well in the upper range of length, while in the case of short lengths, where plastic deformation enters as a factor, it is at least open to question whether the point of elastic failure is not also in conformity with a Rankine curve. If it be granted that the formula for allowable loads on columns should be adapted to the breaking-load curve (which means that columns of all lengths are to have a uniform factor of safety), the case for the Rankine-Gordon formula is much stronger than the popularity of straight-line column formulas would indicate. But any theory of a uniform factor of safety fails in the face of the practice of fixing a maximum length-ratio for columns with a view to obtaining safe and substantial construction. Moreover, safety factors are matters of engineering rather than mathematical reasoning, so that a working formula can hardly be "derived" by so simple a process. It is fair to consider, therefore, whether there is any method by which test data can be utilized directly in determining a working formula for column design. The method, it would appear, must base on a study of safety factors. Hitherto column formulas have been selected by judgment in such a way that their correlation with test results has been uncertain. But if an analysis of service conditions and hazards will lead to reasonable conclusions as to the varying degree of safety desirable for different column lengths, application of these conclusions to test data will make it practicable to devise a column formula of maximum simplicity and economy of result combined with reliability.

Hydro-Electric Leadership in California

PERHAPS it is the pioneering spirit of the forty-niners reappearing in somewhat different form with the present generation, or it may be sheer necessity for leading the way in electrical fields, but whatever the reason, certain it is that the power companies of California are showing a progressive and courageous policy in their present water-power development program. A dozen or more large projects undertaken almost simultaneously could perhaps be accounted for wholly on the basis of delayed development and increasing demand for power, but new ventures in design, as described elsewhere in this issue, indicate a high degree of technical skill and the ability to convince capital that money spent on units and systems greatly in excess in size to previous practice will be a safe and profitable investment. Some of these ventures are a 165,000 and a 220,000-volt transmission line, an 806-ft. head on a reaction turbine, 40,000 hp. from a single vertical-shaft reaction turbine and 30,000 hp. from a double-overhung impulse wheel under a 1008-ft. head.

For years California has led other states in the amount of electrical energy consumed per capita. In view of the time and money spent there to bring hydro-electric development to a high degree of efficiency, it is to be expected that valuable lessons could be learned from California's experience. For example, the present trend is toward wholesale interconnection of transmission lines to make the continuity of service more certain and to make possible the exchange of "off-peak" power with the attendant improvement in load factor. All this tends to keep the companies working together harmoniously, which, in the end, benefits the consumer.

Another excellent feature of California practice—logical but none the less worthy of emphasis—is the practice of considering at the very outset, along with preliminary surveys of sites, elevations, etc., the relation of each proposed plant to existing or possible future developments. Such practice has developed because in times past there have been difficulties with plants and systems which were laid out on the old selfish basis of the greatest income from the immediate investment and with little or no consideration for later interests. Fortunately, the lesson was learned in time to be of advantage in the extensive program now under way.

In some states it has been proposed that water-power development should be permitted only after approval by a state commission which could co-ordinate the various units in a generally advantageous scheme. California has secured just that result without special legislation, apparently because the companies have found that what profits one can profit all if harmony prevail.

What About the St. Lawrence Waterway?

ACTING under instructions from the United States and Canadian governments, the International Joint Commission is now going across the two countries holding hearings on the feasibility of the proposed St. Lawrence River waterway. In time, let it be hoped a short time, it will digest the arguments made before it and, supported by the technical facts gathered by the engineering attachés, will present a report from which engineers may draw a concerted conclusion. Meanwhile, practically all discussion is partisan, because those who talk or write about it are predisposed, either by local influences or by retainer, toward one side or the other. Nevertheless, independent engineers ought to be thinking about the project, not only as citizens because they may be called upon to pay their share toward the huge sums which it involves, but also as members of a profession to which the country looks for unprejudiced and expert advice.

Until the report is available, it would be hasty to take a definite stand on the Lakes-to-the-Sea waterway. The problems are too involved and the sums to be expended too vast for an opinion built up only on assumed bases. It is worth while, though, to set down the fundamental questions that will have to be settled before a concerted judgment can be formed.

The proposal is that the St. Lawrence River from Lake Ontario to Montreal be deepened, dammed, or canalized to such an extent that deep-water navigation—25 to 35 ft.—is made possible. This involves some means of bypassing Niagara—presumably by the new Welland ship canal—the deepening of the other lake connections, the ultimate deepening of all lake channels and harbors, and the construction of port facilities to take care of the traffic for which the whole project is designed. It involves, also, the development of enormous amounts of power in the river, although such development is in no way dependent on the navigation scheme but will only be made cheaper by certain structures common to both navigation and power projects.

The issues are fairly clear, though their solutions are not. The advocates of the waterway see the freight of the world brought to the wharves of the Great Lakes cities by through ships, so that the lake cities, and with them their rich hinterland, will take on the size and importance that world-wide commerce brings. They see, too, as a necessary part of the canalization of the river, the construction of great reservoirs from which large amounts of hydro-electric power can be generated cheaply because of the joint assumption of the cost burden by the navigation and power developments. On account of the reduced cost to the Middle Northwest of transporting its products to world centers, and the reduced cost of power to the Northeast, they see a sectional prosperity which will spread over the whole country, manifesting itself sufficiently in lowered prices to make equable the spreading of the cost burden on all the people of Canada and the United States.

For these benefits they think the whole United States and Canada should be willing to expend a sum which has not yet even been estimated. The first datum that must be established is this cost. Estimates, based merely on guesswork and not even on preliminary engineering surveys of the situation, range from two hundred to three hundred million dollars. Everyone knows that the first rough estimate for public work extending over a large area and a long time is always too low. A reference to the history of such projects will confirm this. Prices tend always to increase; scope is always enlarged and never diminished; unknown and unexpected factors invariably enter. So it is safe to say that even an expert preliminary estimate may be added to materially for an indication of the real cost. The St. Lawrence project, including the necessary deepening of many harbors and channels and the construction of terminals may well run up to two or three times the estimates now given.

Such an expenditure may be warranted by the accrued benefits, but a thorough analysis of the costs and benefits, reduced as nearly as possible to dollars, must be made available before going ahead. Consideration must be given to other mammoth plans that call for national expenditure. The Mississippi and Ohio River advocates want a lot of money for their work and in the Far West far-seeing people are beginning a strenuous campaign for funds to turn the arid and over-wet lands into food-producing country. The Columbia River Basin project alone will cost nearly $300,000,000 and it certainly is a fair question whether it would not benefit the country at large much more than the St. Lawrence waterway.

Another question on which engineers will want knowledge is the possibility of a ship being built which can operate economically on both lakes and ocean. This is a critical issue. If bulk has to be broken anywhere along the line, say at Montreal, the benefits of the waterway will be materially reduced and may not be greater than those from the New York Barge Canal. True, the total carriage from the Lakes to northern Europe will be shorter and there will be one less transfer, but once bulk is broken the advantage of a single break over a double break is probably not sufficient to warrant the large expense involved.

The probable cost and the possibility of through navigation are the two big elements that must be studied but there are several others to be considered, though they are subordinate. These include the possibility of international complications, which involves, too, the distribution of cost between the United States and Canada and the fact that this, on account of ice obstruction, is only a seven-months' waterway. Neither Canada nor the United States is a unit in demanding the improvement, so the certain charges from both sides of the line that this is a selfish national proposal may be discounted in advance, but the possibilities of dispute and trouble in so large a joint undertaking must certainly be weighed. As for the part-time use of the waterway, there is much point in the accustomed reference to Montreal's successful seven-months' port.

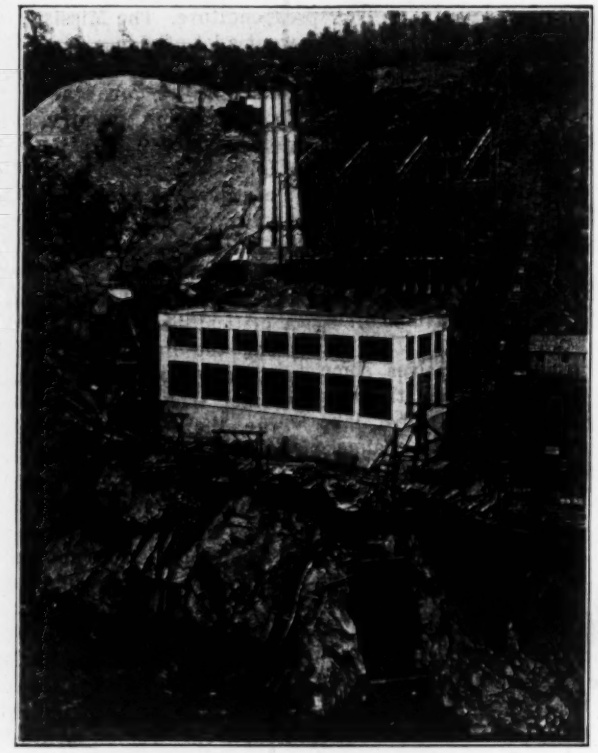
Finally, the possibility of hydro-electric development must not be overemphasized. Power is unquestionably needed in the St Lawrence district and nothing can stop its production there. The question to be decided is whether the saving made by tying in that power development to canalization is worth the extra cost the navigation improvement entails.

These are the essential elements in the St. Lawrence scheme. It is the greatest engineering problem now before the Anerican people, for, make no mistake, the Middle Northwest is aroused in favor of it and will fight for its adoption. Engineers who look beyond their daily job should be studying its possibilities and difficulties.

Forward Steps in California Hydro-Electric Designs

Unusual Features Include 200,000-Volt Transmission Lines and Larger Units and Higher Reaction-Turbine Heads Than Have Previously Been Used

THIS is a day of great hydro-electric development on the Pacific Coast. In California, particularly, many large projects have been undertaken since the war and a group of thirteen now under way there, of which all but two are to be in service by January, 1922, will develop the large total of 522,600 hp. Numerous problems have arisen which called for pioneer work, and several new records have been established. Typical of these are the 40,000-hp. single-runner units for the Fall River plant, the 806-ft. head on reaction turbines at Kern 3 and the 220,000-volt power line that is to bring Pit River power to San Francisco. Apart from considerations wholly within the field of design, very definite progress has been made in the development policy. Preliminary studies are now made so comprehensively that ordinarily before construction work is started on any one plant the interrelation of all the others which may later be built in the same basin is analyzed in the light of the ultimate unified system. This idea, carried out between systems as well as between units, has united more than a hundred steam and hydraulic generating stations in a synchronous power network that extends the full length of California and thence well up into Nevada—a total of 1,400 miles from end to end. How thoroughly these main trunk lines are supplemented by branches and laterals is shown by the fact that the interconnected network has a total of 7,200 miles of high-tension line.



KERCKHOFF PLANT ON SAN JOAQUIN RIVER

During the war there was practically no hydro-electric development in California, but the power demand was steadily increasing. The increase averaged about 11 per cent per annum for these four years. Overlapping the latter part of the war period came three consecutive seasons of drought, which decreased the supply of hydro-electric power far below normal. Thus in a period when the industrial demand was very urgent the power shortage very effectively emphasized the need for a greater margin of hydro-electric power. This power was needed not merely because there was demand but to conserve fuel oil for such uses as were not adaptable to electric power—in ships, aircraft, etc.

After the war, and when the financial situation was finally such that construction could proceed, developments were begun simultaneously in many sections of the state. In planning these additions to the power system it was assumed, in a number of instances at least, that the power demand for the next five years might be expected to increase 12 per cent per annum. In this connection it may be noted that the total hydro-electric power that can be economically developed in the State of California is now estimated at 3,000,000 hp. Of this only about one-fifth of the better primary sites have thus far been utilized.

In developing this small percentage, however, an excellent foundation has been provided on which to carry out the more extensive plans. Seventy-five hydro-electric plants in the state are interconnected, the total power aggregating about 470,000 hp. At various points on this network the service is supplemented by forty-seven steam standby plants that can supply a total of 315,000 kw. The load on this system has been built up in such a way that the load-factor on the entire network is between 60 and 65 per cent.

An example of the pioneering policy pursued in these California developments is found in the system of the Southern Sierras Power Company, which has built a transmission line 400 miles long and delivers the major part of its 20,000-hp. load this distance.

Topographic and Climatic Conditions.—For the most part the hydro-electric power sites are in the high mountain region on the eastern edge of the state, while the centers of consumption are in the lowlands of the valleys or along the coast. Under the widely varying conditions in the northern and southern districts a variety of problems has arisen, which has naturally led to pioneering ventures. Typical of the divergent conditions is the fact that in the Pit River basin no storage is required, while in those developments in the central or southern parts of the state it is customary to provide enough storage to supply the full flow for about half the year.

Neither the Hat Creek nor the Fall River developments (Pit River Basin), which are to develop a total of 181,600 hp., are being provided with storage because of the remarkably equable stream flow they utilize. The geological formation in this entire section, some 5,000 sq.mi. in extent, is such that the precipitation on a large area passes through underground lava beds and reappears in large springs, almost perfectly regulated. The streams of this area are regarded as ideal for

PRINCIPAL CALIFORNIA HYDRO-ELECTRIC PROJECTS UNDERTAKEN SINCE THE WAR

Name of Plant	Distance via Transmission Line to Distribution Center	First Installation in Hp.	Date of Completion	Head in Feet	Type of Wheels	Ultimate Installation in Hp	Transmission Voltage	Company
Pitt River Basin: Fall River No. 1		80,000	Aug. 1921	430	Two 40,000-hp. vert.-shaft single-runner reaction turb.; Allis-Chalmers	80,000	110,000 1st year then 220,000	Mt. Shasta Power Corp. Subsidiary of Pacific Gas & Elec. Co.
Pit River No. 1	245 miles to center of San Francisco Bay District	80,000	July, 1922	335	Two 40,000-hp. vert. single-runner reaction turb.; contract not awarded	80,000		
Hat Creek No. 1		9,300	Jan., 1921	215	One vert. single-runner reaction turb.; Wellman-Seaver-Morgan.	9,300		
Hat Creek No. 2		12,300	Jan., 1921	195	One vert. single-runner reaction turb.; W.S.M.	12,300		
Caribou Plant	195 mi. to San Francisco (N. Fork Feather River	60,000	Feb., 1921	1,008	Two 30,000-hp. double overhung impulse wheels; Allis-Chalmers	120,000	165,000	Great West'n Power
Moccasin Creek	140 miles to San Francisco (on Hetch Hetchy project)	75,000	Probably 1923	1,300	Three double-runner 25,000-hp. impulse wheels; contract not awarded	150,000	154,000	City of S. Francisco
Levining Creek	400 miles to Riverside	15,000	Oct., 1921	1,595	One single overhung impulse wheel; contract not awarded	15,000	87,000 to be raised to 140,000	So. Sierras Pwr. Co.
Spring Gap	130 miles to San Francisco	9,500	May, 1921	1,860	One single overhung impulse turbine; Pelton	9,500	110,000	Sierra & S.F. Power Co.
Kerckhoff Plant	40 miles to Fresno (San Joaquin River)	45,000	Aug., 1920	335	Three 15,000-hp. vert. single-runner reaction turb.; Allis-Chalmers	50,000	110,000	San Joaquin Lt. & Power. Co.
Big Creek No. 2A (new unit)	240 miles to Los Angeles	22,500	Jan., 1921	2,400	One 22,500-hp. double overhung impulse wheel; Pelton	22,500	Now 150,000 to be raised to 220,000	So. Cal. Edison Co.
Big Creek No. 8	240 miles to Los Angeles	25,000	Jan., 1922	717	One 25,000-hp. vert. reaction turb.; I. P. Morris	120,000		
Kern River No. 3	130 miles to Los Angeles	45,000	Feb., 1921	806	Two single-runner vert. reaction turb., Pelton	45,000		
San Francisquito No. 2	50 miles to Los Angeles (on L. A. Aqueduct)	44,000	Aug., 1920	530	Two 22,000-hp. vert. reaction turb.; W.S.M.	61,500	110,000	City of Los Angeles

power development and it is estimated that about 500,000 kw. could be developed upon this watershed without providing reservoir storages.

A very different condition exists south of the North Fork of the Feather River. Here there is very little ground storage, and stream flow must be supplemented by reservoirs. The snow pack in the high Sierras, which is the source of summer stream flow, is ordinarily melted off by midsummer, and the chief factor in economic power sites in this district is the question of practicable reservoir sites. Ordinarily, good practice prescribes development here for about 75 per cent of the normal stream flow, and for safety it is regarded as highly desirable to be able to supply the full flow from storage for 150 to 200 days. The question of silt does not enter into the storage problem because, with the exception of the Colorado River, none of the important California power streams regularly carry any considerable amount of silt.

Some California streams have large power possibilities. Figures on four of the rivers having important power sites are given in the following table:

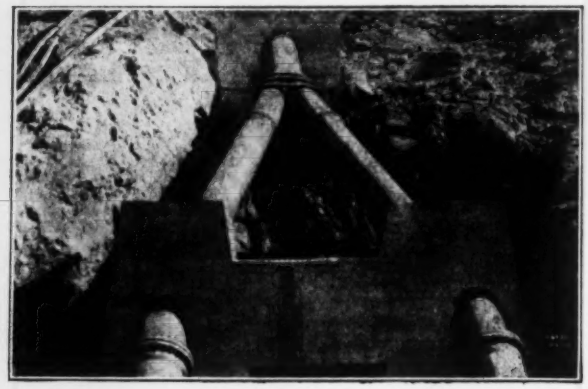
Drainage Basin	Recently developed or under construction	Proposed for development in next five years kw.	Possible economic development (estimated), kw.
Pit River	181,600	200,000	500,000
Big Creek	100,000	300,000	500,000
Feather River	100,000	200,000	300,000
Colorado River	.....	.....	200,000

The widely diversified conditions in different parts of the state have greatly increased the advantages of connecting the transmission lines. Not only have tie-ins been made at practically every feasible point but choice of location for new power plants is influenced materially by present and prospective developments and their transmission lines. The desire to deliver, in the ultimate system, the greatest amount of power for the minimum investment is tempered by the need for assuring continuity of service, and where necessary plants are built for this express purpose.

SAND TRAP AT HEADWORKS, KERN RIVER NO. 3

Characteristic of the developments now under way is the repeated use of the same water in a series of power houses. The plants are built in whatever order fits in best with existing power demand and financial conditions, but the relation of each plant to the others is carefully studied before any program is adopted. In fact, not only are the relations of all possible sites on a basin studied comparatively but the bringing in of additional water from other drainage basins is also considered. On the Big Creek system a 10-mile tunnel is being driven to bring the waters of the San Joaquin River into Huntington Lake, thus diverting a large steady flow into the upper end of a series of eight plants, several of which have already been built, in which a total fall of 5,950 ft. is utilized.

Design of Hydraulic Units.—The development of water power on this extensive scale has brought about changes and progress in the design of hydraulic units. As longer transmission lines have come into vogue and the amount of power developed on a single system has increased there has come a demand for larger generating units. In fact, the size of the units is now consid-



PENSTOCK FOR NEW UNIT, BIG CREEK NO. 2

ered as having a direct relation to the size of the system. It is considered desirable to have each important generator large enough to provide charging current for the entire transmission line which it serves, so as to avoid danger of current surges back through the generator. Units of smaller size are believed to be less efficient in voltage regulation, or might even be burned out by surges. Thus electrical reasons have really brought about the steady increase in the size of hydraulic units. Though the trend has been in this direction for some time a step that exceeds all previous records is being made in the Kern 3 plant (which is to go into service next February) by using reaction turbines under an 806-ft. head. This plant will be watched with keen interest, because it is expected to have a decided effect on the design of hydraulic turbines.

In the light of recent experience reaction turbines of the future, manufacturers affirm, will certainly be built not only for still larger power outputs but also for even higher heads than that at Kern 3. Thus the reaction turbine is entering a field which heretofore has been considered the exclusive province of the impulse type. With moderately high heads, the use of reaction turbines of larger capacity and higher speeds will tend to keep down machinery costs and secure a higher operating efficiency. The costs of reaction and impulse types (particularly when their settings are considered) vary with conditions too much to permit of comparing figures, but a fairly definite comparison may be made on the basis of efficiencies. The reaction turbines ordinarily show, according to manufacturers' records, an efficiency of about 90 per cent as compared to about 86 per cent for impulse wheels.

In the Kern 3 plant the 22,500 hp. on the single runner is more than could be put (in the present stage of the art) on any impulse unit operating at the same speed. Hence the general opinion that this plant marks a step, the success of which will open up great possibilities in the attainment of more ideal hydro-electric development.

Advance is also being made in the design of impulse wheels. Although the reaction type has been making more rapid progress of late there is reason to believe, the manufacturers point out, that these advances will be very closely followed by progress in impulse wheel design, which will adapt waterwheels of this type to service not before attempted.

Summarizing the tendencies that stand out prominently in the very active hydro-electric field in California they are (1) a readiness to make comprehensive, relative studies of all the power sites, regardless of ownership, that can be economically developed on an entire stream or basin, with a view ultimately to connecting them electrically; (2) a steady increase in the maximum heads considered feasible for reaction turbines; and (3) a rapid increase in the size of hydraulic units it is considered practicable to build.

Table of Corrections to Obtain Back Azimuths

By S. W. Tay
Sanitary Engineer, Honolulu, T. H.

THE following table of corrections to obtain the back azimuth of a line was prepared with the view of assisting the surveyor while in the field in the Hawaiian Islands. A similar table can easily be compiled for the general locality where survey work is to be carried on and where the azimuth method is used. The method by which the table is used is as follows:

TABLE OF CORRECTIONS TO OBTAIN BACK AZIMUTH
For Easterly Departure, Add Dz
For Westerly Departure, Subtract Dz

Departure, Feet	Correction in Seconds for Latitude 19° to 22°						
	19° 00′	19° 30′	20° 00′	20° 30′	21° 00′	21° 30′	22° 00′
1,000	3.39	3.49	3.59	3.68	3.78	3.88	3.98
2	6.79	6.98	7.17	7.36	7.56	7.76	7.96
3	10.18	10.47	10.76	11.04	11.34	11.64	11.94
4	13.57	13.96	14.34	14.72	15.12	15.52	15.92
5,000	16.97	17.45	17.93	18.41	18.90	19.40	19.90
6	20.36	20.93	21.52	22.09	22.68	23.28	23.88
7	23.75	24.42	25.10	25.77	26.46	27.16	27.86
8	27.14	27.91	28.69	29.45	30.24	31.04	31.84
9	30.54	31.40	32.27	33.13	34.02	34.92	35.82
10,000	33.93	34.89	35.86	36.81	37.80	38.80	39.80
11	37.32	38.38	39.45	40.49	41.58	42.68	43.78
12	40.72	41.87	43.03	44.17	45.36	46.56	47.76
13	44.11	45.36	46.62	47.85	49.14	50.44	51.74
14	47.50	48.85	50.20	51.53	52.92	54.33	55.72
15,000	50.90	52.34	53.79	55.22	56.70	58.20	59.70
16	54.29	55.82	57.38	58.90	60.48	62.08	63.68
17	57.68	59.31	60.96	62.58	64.26	65.96	67.66
18	61.07	62.80	64.55	66.26	68.04	69.84	71.64
19	64.47	66.29	68.13	69.94	71.82	73.72	75.62
20,000	67.86	69.78	71.72	73.62	75.60	77.60	79.60
21	71.25	73.27	75.31	77.30	79.38	81.48	83.58
22	74.65	76.76	78.89	80.98	83.16	85.36	87.56
23	78.04	80.25	82.48	84.66	86.94	89.24	91.54
24	81.43	83.74	86.06	88.34	90.72	93.12	95.52
25,000	84.83	87.23	89.65	92.03	94.50	97.00	99.50
26	88.22	90.71	93.24	95.71	98.28	100.88	103.48
27	91.61	94.20	96.82	99.39	102.06	104.76	107.46
28	95.00	97.69	100.41	103.07	105.84	108.64	111.44
29	98.40	101.18	103.99	106.75	109.62	112.52	115.42
30,000	101.79	104.67	107.58	110.43	113.40	116.40	119.40

Given: Azimuth, and distance from point *A* to point *B* and the approximate latitude.

To find: *Dz*, or back azimuth.

Let the forward azmuth of the line $AB = 200° 20'$; the distance *A* to *B* 24,000 ft., and latitude 19° 10′. Then, the departure sin 20° 20′ × 24,000 = .3475 × 24,000 = 8,340. Interpolating in table with departure 8,340 and latitude 19° 10′ we obtain a correction of 29 seconds to be added to the forward or original azimuth, which result added to 180° 00′ gives the true back azimuth equal to 20° 20′ 29.″

Primary-Road Maintenance by the State Asked in Washington

In his biennial report, James Allen, highway commissioner of the State of Washington, asks that maintenance of all primary highways be placed under the direct supervision of the state highway department, and that a sufficient appropriation be made for such maintenance. The commissioner also recommends that counties initiating work upon state highways first submit plans to the commission for approval. Re-appropriation of $1,000,000 as a revolving fund from which to make advance Federal-aid payments, is also asked.

Observations on a Pacific Coast Trip

By Frank C. Wight
Associate Editor, *Engineering News-Record*

Portland

EVERY morning now the Portland newspaper carries a black-face box on its first page showing the previous day's bank clearings for Seattle and for Portland. Every day Portland is a million or so ahead of its northerly and larger rival. When, or if, the balance turns, interest in the figures may not be so great but for the present they express very well Portland's hope that the race is not always to the swift. For Portland has never been a boom town. It was founded many years ago at the confluence of the rich Willamette and Columbia valleys and, regardless of gold strikes or wars, has built itself upon the sure sources of wealth in its prolific hinterland and the excellent, though constricted, passageway to the sea. Age and sure growth make for a conservatism which is reflected in its people and its buildings and which in these days of general slackness comforts itself with the knowledge that reaction and action are apt to be equal or, to translate into less polite terms, "the bigger they come, the harder they fall."

Oregon's great industries are lumbering and farming. The current depression is reflected in the former but agriculture is not a fluctuating trade. The Columbia River basin and the stock country to the south continue to contribute to the world's necessary supply of food. Because of these conditions engineers in Portland—outside of those working strictly in city work—are largely interested in irrigation and drainage. All over the state are located districts which never figure in any but local news, where the engineering details of design, construction and maintenance require expert and constant attention.

Mainly as a result of this sort of practice, there is heard here with extra emphasis the complaints of the northerly cities against government usurpation of the private engineer's function. This complaint is not only against the Reclamation Service and the Bureau of Public Roads but also—and perhaps mostly—against the drainage investigation service of the Agricultural Department, which is also under the Bureau of Public Roads.

The criticism of these three governmental activities is different for each. It is common talk throughout the Northwest that the Reclamation Service discourages irrigation by the superfineness of its work. There is such a thing as being too careful and of building too strongly, of insuring too much against the future. This habit of the Government is natural, for it is a perpetual institution and its bureaus must be prepared for all contingencies; but some of the engineers who are trying to develop small areas are hampered, they think, by the, to them, unnecessarily high standards the Government sets. They feel, too, that the money could be spent to better advantage to the community if spread over more work.

Comment was made in my Spokane letter regarding the too great centralization of the Federal road aid and this criticism is also found in Oregon, though not so generally expressed. The main trouble here seems to be with the drainage investigators who, according to several independent observers, are going hither and yon throughout the country making reports—none too accurate or careful—on possible developments and are thereby depriving those in private practice of their principal means of support as engineers. These reports are not on Government work but are rendered free to any who ask. The average farmer apparently believes that the adage that "what you get for nothing isn't much" does not apply to free Government engineering.

Society Activity

Engineering society conditions are complicated in Portland. In fact, the national situation is duplicated on a minor scale. There is a large, active and very strong Oregon Chapter of the A. A. E., functioning particularly in discussion of public questions; there is a cohesive section of the Am. Soc. C. E., somewhat in opposition to the A. A. E., but with many members in common, and there is the prototype of Engineering Council in the Oregon Technical Council, composed of representatives of the national, civil, electrical and mechanical engineering societies, the American Institute of Architects and the National Electric Light Association. Just as in the national situation, it is difficult to get unbiased opinion on how the thing will work out but unless they come to open warfare it does seem as though Oregon's engineers ought to be brought sufficiently before the public eye.

In two or three recent state issues the engineers took decided stands and received columns of newspaper publicity. The extent to which their campaigns were carried and the material success they achieved makes one wonder whether such campaigns may not be dangerous. There is a widely held theory that on any given question that concerns them, engineers will hold the right view. This presupposes, first, that there is always an absolute right and an absolute wrong and, second, that engineers will unanimously support the right. The first assumption is ridiculous and, although we may not care to say so except among ourselves, the second is equally so. However, that theory is the basis for public campaigns and the result may well be that a misinformed or misguided small majority, in control of an engineering society, will propagate in the name of the profession views to which a substantial and perhaps more expert minority dissent. According to some guarded remarks, such a condition has existed in Oregon, but the issue was not of sufficient importance to call for public remonstrance. The possibilities of danger are sufficient to make the enthusiasts for public service careful.

Engineering Work in City

In the city itself engineering work is quite active or at least prospects of work are good. The Columbia Slough sewage diversion, whereby a channel is being cut between the river and an adjoining slough to facilitate sewage movement and to reclaim land, is under way and preparations are being made for the construction of a two-million dollar bridge at Burnside Street across the Willamette. The city is on both sides of this navigable and sizable stream and more bridges will undoubtedly be required in the next few years. Then, too, steps are being taken to reclaim much of the river district and to reconstruct the old wharves in the central part of the city as well as

to improve street conditions near the wharves. By misunderstanding probably, the rest of the state overruled Portland's vote at the recent election to unify the port control, which is now divided between a State port authority, a city dock commission and the city government itself. The same initative bill included an ambitious scheme to reclaim for industrial purposes a large overflow area near Swan Island, in the Willamette, and to build a new dock area and dredge a new channel. The proposition will now go to the legislature and has a fair chance of going through.

The new No. 4 Terminal, formerly called St. John's Terminal, where is located the grain elevator which caused some worry by its subsidence about a year ago, is an admirable piece of work, quite the most modern and efficient river terminal—for ocean going vessels—on the continent. Here again in a minor port one sees the latest and best ideas of port development worked out in a successful manner. The grain elevator is now complete and, thanks to the extra outside piling, seems to be stable.

As I went through the station on my way to take the train for San Francisco I ran into one of the engineers with whom I had lunched at a group meeting that day. He was in mackinaw, riding breeches and boots, en route up-country to some project or other. I thought his dress a fair example of the difference in engineering conditions in the big cities of the West and of the East. Out here they are close to the big outdoors. The wilds and the natural problems in the rough are part of their daily work and yet not all of that work. They have the comparative physical ease and creature comfort of the city office, with its association with other men and other trades, which the engineer entirely in the field lacks and which he needs for a full rounding of his knowledge and his attitude toward things. At the same time as a part of their regular task they do get out into the country where their theories are practiced.

A month ago I ran into a prominent New York engineer on Fifth Avenue in muddied clothes and flannel shirt and he apologized for them. In these Northwest cities such an apology is neither expected nor given. Every one of these cities is framed in mountains. From the streets of any of them one can look up into the hills, stretching on into the back country where the engineer does his work. There is something to look at besides the bricks and stone of the plains cities or the eastern seaboard.

Can one wonder that men living here take on some of the qualities of the open spaces?

Notes on Iowa Sand Filters for Sewage

In the discussion of the operation of Iowa sewage sand filters at the recent conference of operators at Iowa State College, C. H. Currie advised a 3-in. dose on a 2-ft. bed, which is the minimum depth in Iowa practice. Lafayette Higgins advised dividing the beds into units by sand ridges and making a gutter along the edge of the beds to retain surface wash. For winter operation he urged scraping into piles 8 to 10 ft. apart rather than the furrow or ridging method. With settled sewage a loading of 2,000 people per acre could then be obtained with 50 to 100 gal. per capita flow. In many Iowa cities the ground water is close to 50 gal. per capita.

Considerations in Design of Heavy-Traffic Pavements

By Prevost Hubbard
Chemical Engineer, The Asphalt Association, New York

[Paper presented before the Engineers' Club of Philadelphia, Dec. 21, 1920.]

The load-carrying capacity of any type or design of pavement must of necessity be influenced by the support afforded the pavement from below. Such support is furnished by that portion of the earth directly below the pavement, known as the subgrade. The supporting value of natural subgrades varies enormously, as illustrated by the two extremes of muck or quicksand and solid rock. Most subgrades consist of soil lying between the extremes mentioned but still varying greatly in supporting value depending not only upon type but upon their moisture content and degree of compaction. With very few exceptions any well-compacted soil will of itself support the heaviest conceivable traffic if its moisture content is properly controlled and if it is protected by a structure which prevents the displacement of particles at its surface. The protective structure termed the pavement will then need to be only of sufficient thickness to afford such protection and

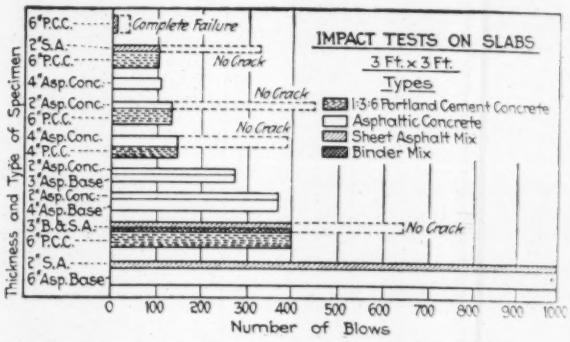


FIG. 1. IMPACT TEST RESULTS FOR SLABS

at the same time itself withstand the various destructive agencies of traffic. For a given traffic this thickness will depend largely upon the type of pavement used.

The bearing capacity of most soils, particularly the clayey types, decreases as their moisture content increases above a certain point. Although there is much yet to be learned regarding the comparative bearing value of soils this fact is generally recognized and various drainage methods are employed to control the moisture content of the subgrade. Proper drainage is the first essential for maintaining a dry subgrade and measures taken to prevent access of water to the subgrade directly below the pavement are often more important than measures designed to remove accumulations of water in the subgrade. Some soils are so persistently retentive of moisture once absorbed that it is impossible to remove it with sufficient rapidity by any ordinary system of drains. Certain clayey soils belong to this class and when all practical preventive measures in the way of drainage are apt to prove inadequate it may well be advisable to modify the character of the subgrade material. Thus at relatively low cost a clay subgrade may often be greatly improved by mixing it with sand in exactly the same manner as in the construction of a sandy-clay road. Such a mixture will not only retain less moisture than the clay but will possess a much higher supporting value than moist clay.

It is now generally admitted that in the past too little attention has been paid to drainage in the construction of pavements outside of municipalities. At the same time there exists a marked tendency to increase the massiveness of design to a point far beyond that which is at present proving entirely satisfactory for heavy traffic in municipalities and in other places where subgrade conditions are favorable. This matter should receive the most careful

consideration of engineers as it points not only to the most logical but also to the most economical solution of the design of pavements. It is evident that in many cases it will cost far more to increase the thickness of a pavement to such an extent that it will distribute the load sufficiently to enable a poor subgrade to support it than it would be to change natural subgrade conditions so as to create a high supporting value for the relatively thin pavement.

The widespread use of rigid pavements or pavements with rigid foundations has been largely responsible for this trend in paving design through too great dependence upon the bridging value of such rigid types, and right here there exists a rather anomalous situation, for while many claims are made of the bridging value of rigid pavements it is generally admitted that careful preparation of the subgrade is necessary to uniformly support these rigid types. As a matter of fact it is impracticable to design a highway which will permanently bridge appreciable areas of a weak subgrade when subjected to modern heavy traffic.

In pursuing a policy upon which general attention has once been centered many who are interested in highway construction are apt to overlook the experience of others following different lines of development and fail to profit by their experience. One of the most striking examples of this has to do with the flexible type of construction as represented by the asphalt base pavement, and this in spite of a number of valuable papers and discussions upon the subject by leading engineers. Citations of past and present experience in localities other than that of interest to the individual engineer apparently carry little weight once the majority concentrate on a given line of development, and it is difficult to focus attention on any other line for the time being.

To state that considerably over 12,000,000 sq.yd. of asphalt base pavement are now giving satisfactory service in California and Oregon, many of them 5 in. or less in total thickness and subjected to heavy motor truck traffic, and that some of these pavements have been in service for over 20 years with little or no cost for maintenance, should at least arouse some degree of interest on the part of Eastern engineers. To further state that in such cities as Washington, D. C., Chicago, Omaha, Pittsburg, Buffalo and Denver there are in existence sections of bituminous base which have given satisfactory service for over 20 years should also serve to dispel any illusion that the serviceability of this type is restricted to any given locality.

Service results should in themselves be conclusive, but explanations of such results are sometimes required before their full significance is grasped. It is true that theories have been advanced, but these have not been backed up by test data in such a way as to make them convincing. Some degree of cushioning effect under traffic has been claimed and admitted for the asphalt base as well as the wearing course, but few engineers have believed that a mineral aggregate cemented together with asphalt could possibly possess any degree of slab strength or beam strength, at least to an extent comparable with the rigid type of construction.

Impact Studies Begun

With this in mind an investigation was begun under the direction of the writer assisted by W. E. Rosengarten, traffic engineer of the Asphalt Association, to determine certain relations that exist between the rigid and flexible types of construction. Fortunately through the very valuable work of the U. S. Bureau of Public Roads it has already been proved that impact, and not dead load, is the most destructive traffic factor to be taken into account in the design of modern highways. It was therefore decided to limit these investigations to a study of the effect of impact upon test specimens having thicknesses equivalent to those commonly used in the construction of highways. It was clearly realized in advance that it would be impossible to duplicate all of the variable conditions under which impact is delivered to a pavement by traffic, and it was therefore decided to confine this study to the effect of pure impact as delivered by an iron ball falling from a relatively small height.

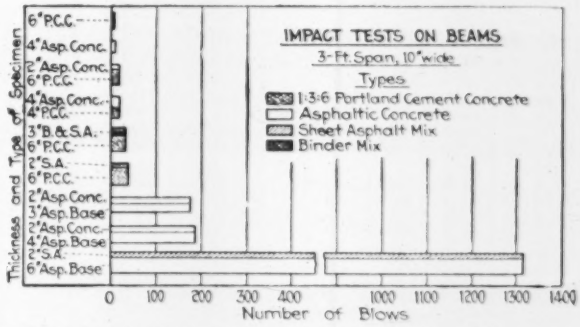


FIG. 2. IMPACT TEST RESULTS FOR BEAMS

The following description of tests will be brief, both because of the limited time available for the presentation of this paper and because the results here reported are only a portion of those included in a more comprehensive investigation involving other comparisons which will shortly be presented in a detailed article.

In order to obtain comparisons at two extremes of conditions it was decided to construct and test slabs of various design upon a solid uniform subgrade and to test beams of the same design supported only by knife edges. A plot of ground was secured and upon this was laid a 6-in. course of cinders thoroughly compacted by rolling. Slabs 3 ft. square were constructed directly upon this subgrade except that after the forms had been placed the subgrade within the forms was leveled up with a very thin layer of sand so that each specimen would have a uniform thickness throughout. Portland cement concrete slabs of a 1:3:6 mix were cast 4 and 6 in. thick. These were cured under a cover of moist sand after they had set. Some of the concrete slabs were then covered with from 2 to 4 in. of coarse, graded aggregate, asphaltic concrete and some with sheet asphalt with and without a binder course. In addition, slabs were constructed of asphaltic concrete base mixture and covered with either asphaltic concrete surface mixture or with sheet asphalt so as to produce total thicknesses directly comparable with the Portland cement concrete base specimens. At the same time corresponding sets of beams 4 ft. long and 10 in. wide were constructed of the same type and thickness. In general, the specimens were tested when the concrete was 28 days old, although in a few cases they were slightly older when, for one reason or another, it was found impossible to keep up with the testing schedule which had been planned.

How Tests Were Made

All slabs were tested where they had been cast by means of a machine which was designed and operated so as to drop a 125-lb. iron ball upon the center of the upper surface from a height of 6 in. at the rate of about 30 blows per minute. In all cases a specimen was considered to have failed when the first crack appeared. Cracks in the Portland cement concrete were invariably first noted developing on one or more sides of the specimen from the plane of contact with the subgrade. Under continued impact these cracks traveled to the upper surface of the monolith and then across the upper surface toward the center. The all-Portland cement concrete specimens broke into two to four large fragments shortly after the first cracks appeared, while similar slabs with an asphalt top showed no cracking of the top after the base had failed. The results obtained on check specimens were in some cases erratic and in others quite close together. By averaging results, however, the general trend is apparent and is closely borne out by results obtained on the beam specimens.

The accompanying diagram, Fig. 1, shows the resistances to impact of the various types of slabs as measured by the number of blows required to produce failures. The dotted extensions of the asphalt tops on slabs with a Portland cement concrete base show the number of blows at which the test was stopped, no failure of the top then being apparent.

The beams were tested upon steel knife edges 3 ft. apart with the same machine used for testing the slabs, but with a 50-lb. iron ball dropped from a height of 1½ in. at the center of the span at the rate of about 50 blows per minute. The number of blows required to produce the first crack was recorded as point of failure. In all beam tests complete failure occurred within a very few blows after a crack appeared. The results of these tests are shown in Fig. 2 in the same manner as the slab tests.

What Diagrams Show

In considering these diagrams no attempt will be made to draw conclusions based upon a comparison of absolute values as here shown. In fact, it is frankly admitted that such a course would be unwise until much more test data is available. It is believed, however, that the general similarity in trend of the results obtained in both the slab and beam tests is highly significant and points to interesting facts. What is clearly apparent for conditions under which these specimens were tested may be summed up as follows:

Asphaltic mixtures develop very decided slab and beam strength, as measured by their resistance to impact. The all-asphalt type of a slab and beam appears to offer considerably more resistance to impact than an equivalent thickness of 1:3:6 Portland cement concrete, considered either as an integral structure or as a base for an asphaltic top.

It is recognized that, unsupported by practical service results, deductions drawn from these tests might not be conclusive as applied to the design of highways for heavy traffic. They do, however, help to explain the remarkably satisfactory service record of the millions of square yards of 4 and 5-in. asphaltic concrete pavements in California and Oregon and point the way to a more rational development in the design of highways in other localities. In summing up the substance of this paper there are a few points which the writer wishes to emphasize:

Conclusions

1. Any rational design of highway should take into account the fact that the subgrade must ultimately take the weight and shock of traffic as transmitted through the pavement and practically any reasonably dry subgrade will do this if it is compacted and its surface is protected from displacement. Careful attention to subgrade preparation and drainage is, therefore, the first essential to be considered.

2. The asphaltic concrete pavement is highly resistant to impact which is recognized as the most destructive traffic factor and under impact develops as a single unit relatively high slab and beam strength.

3. It is manifestly uneconomical, if not impracticable, to adopt a design of highway which will permanently bridge appreciable areas of weak subgrade. While the asphalt type develops bridging action to an appreciable extent it will of itself constantly seek to maintain contact with the subgrade at all points and thus reinforce itself with the maximum supporting value of the subgrade. The rigid type of pavement or base cannot do this because of its inherent characteristics. It is, therefore, almost sure to crack eventually where appreciable areas of subgrade fail to support it uniformly.

4. Both the service history of asphalt base pavements and the test data here presented indicate that under given conditions it is not necessary to adopt as massive a design for the flexible type of base as for the rigid type. It is difficult for engineers who have had no opportunity to observe the asphalt base pavement under heavy traffic to think of it in terms of less thickness than the rigid base but in the light of present experience such consideration appears to be entirely warranted.

[Photographs furnished by Mr. Hubbard, but which would not reproduce well, indicate little if any deflection or deformation of the slabs that would have rendered them unsuitable for pavement base before cracking occurred.—Editor.]

Fees and Services of Practicing and Consulting Engineers

Extracts From Report by W. L. Benham, Chairman of A. A. E. Committee, Giving Minimum Schedules and Defining Services

FROM the report of the committee on fees and services of practicing engineers of the American Association of Engineers (W. L. Benham, chairman) made public last week, the following extracts are taken:

Is it not high time for practicing engineers to establish a definite basis of fees and charges for engineering services? Adequate engineering fees is a subject much talked about but very little practiced. Many elaborate schedules have been prepared by the various engineering societies and organizations of this country but it may be stated without fear of successful contradiction that very little has been accomplished to bring about practical results for the engineer. The public has not been educated to a point where it knows what reasonable charges are or really understands the scope of services which engineers are expected to render. The engineers themselves have stood in their own light and this may be the reason why the public holds its present attitude towards them. In order to obtain successful results engineers must make up their minds to pull together with a clearer understanding of their rights as well as their responsibilities and duties. A more strict adherence to the numerous codes of ethics of our engineering societies will go a long way toward bringing about a spirit of co-operation among engineers and helping us to accomplish our ends. We cannot force the public to recognize us; we do not advocate the accomplishment of our ends through the medium of strikes. Recognition must be achieved by education of the public, co-operation among ourselves and service to our clients.

Realizing the need of efforts in behalf of the practicing engineer, and by this is meant the engineer who sells or contracts his services and that of his organization, the national executive committee of the American Association of Engineers appointed a committee of practicing and consulting engineers to consider the scope and practice of engineering activities, the desirability of having uniform practice with reference to fees and scope of services, and the feasibility of establishing such practice.

The consensus of opinion of members of the committee seems to be that it is not possible to establish any hard and fast uniform or standard schedule of fees for practicing and consulting engineers for all classes of work and for all contingencies, but it is believed that some definite schedule can be adopted as a basis for *minimum* charges.

It seems to be the desire of the majority of the committee to draw a line of demarcation between the practicing and consulting engineers and to allow the latter sufficient latitude so as to enable them to obtain higher fees.

A *practicing engineer* may be termed one who is actively engaged in the practice of engineering, such as the making of surveys, designs, plans, specifications, valuations, appraisals and reports and supervising work of construction, and who contracts with his clients for engineering services, as differentiated from the engineer who is employed on a salary basis.

A *consulting engineer* may be termed one who has had highly specialized training and experience in certain lines of engineering and who has mature judgment and experience in general engineering—experience which qualifies him to act in the capacity of adviser to other engineers or directly to their clients, to design and supervise the construction of the more important engineering problems—as apart from the practicing engineer who is engaged in the design and supervision of the more simple projects.

As a general guide for the establishment of fees for professional services of engineers, for work in the United States within the field of the engineer, the following is suggested. These services can be divided into two classes, as follows:

TABLE OF PERCENTAGE FEES FOR ENGINEERING SERVICES

Service Classification	Estimated Cost of Project										
	$10,000 to $25,000	$25,000 to $50,000	$50,000 to $100,000	$100,000 to $200,000	$200,000 to $300,000	$300,000 to $500,000	$500,000 to $750,000	$750,000 to $1,000,000	$1,000,000 to $1,500,000	$1,500,000 to $2,000,000	$2,000,000 and up
B-1 Surveys	Actual Cost Plus 25% and Upward										
B-2 Preliminary reports	2.25	1.75	1.20	.80	.70	.60	.55	.50	.45	.40	.40
B-3 Plans and specifications	5.00	4.50	3.75	3.25	3.00	2.75	2.65	2.60	2.55	2.50	2.50
B-4 General supervision	2.00	1.90	1.70	1.50	1.40	1.35	1.35	1.25	1.20	1.15	1.10
B-5 Resident Supervision	Actual Cost Plus 25% and Upward										
B-6 Purchasing	2.00	1.80	1.35	1.00	.90	.85	.80	.75	.70	.70	.65
B-7 Management	5.50	5.00	4.30	3.50	3.00	2.75	2.55	2.45	2.35	2.25	2.15

A. Special Engineering Service

1. Consultation. 2. Arbitration. 3. Professional advice. 4. Expert testimony and court work. 5. Valuations and appraisals. 6. Service and efficiency tests. 7. Reports.

B. Regular Engineering Service (See table)

1. Reconnaissances, surveys of all kinds, borings, soundings, tests, experimental work and compilation of all data necessary for preparation of preliminary report, estimates of cost and for plans and specifications.

2. Necessary conferences, preparation of preliminary plans, estimates and report covering all features of the work with various alternate plans setting forth advantages and disadvantages, cost of operation and maintenance and recommendations for solution of the particular problem.

3. Preparation and presentation of working plans, profiles, specifications and estimates for letting of contracts or purchase of material and machinery and for complete information of client or owner, describing in detail manner under which contract or contracts will be let, general stipulations, complete detailed description of all parts of the work, general manner in which work shall be done, forms of proposal blanks, contracts and bonds, and detailed estimates of cost.

4. Attendance and advice at meetings for award of contracts of construction or for purchase of materials and machinery, supervision of construction work during progress, progress reports and rendering of estimates. By "general supervision" is meant occasional visits of a principal to the work, and such office work at headquarters which is necessary to prepare progress estimates and reports, correspondence between field and office and final records. It does not include surveys and inspection work in the field or testing.

5. Resident supervision of construction continuously "on the ground" during the progress to see that the plans and specifications and contract are being complied with.

6. Purchase of all materials, equipment and machinery.

7. Complete management of project from conception to completion, but not financing.

Charges for all classes of work under "A" may be placed on the per diem basis. The amount of the charge should vary according to the character, magnitude or importance of the work or subject involved or according to the experience and reputation of the engineers. This charge should vary from $50 a day upward and it may be considered legitimate to charge a retainer fee of $250 or more. An additional charge should be made for all actual expenses, such as traveling and general office expense, field assistants and materials used, with a suitable allowance for indeterminate items, plus a profit on this portion of the work of at least 25 per cent over and above all expenses as above enumerated. In such cases when doing office work 8 hours shall be considered to be a day, but when absent from the city each day of 24 hours while away from the office shall be considered a day, regardless of the actual time spent on the work. This includes all days in travel going to and from location of engagement. Payment for services shall be made monthly as the work progresses or upon submission of report or upon completion of work as outlined in contract.

In lieu of the per diem charge a fixed total sum for services may be agreed upon. In determining this fee, however, the per diem charges plus expenses should be figured as closely as possible, with a reasonable allowance for contingencies. It may be considered legitimate to charge a retainer fee. Payment for services shall be made monthly as the work progresses or upon submission of report or upon the completion of the work as outlined in the contract.

Charges for work as set out under "B" may be made on a percentage basis according to the table.

The percentages in the above table are to be computed upon the entire cost of the completed work exclusive of legal and engineering, or upon estimated cost pending execution or completion.

The term "cost of work," as used, refers only to such part or parts of the whole work or project as the engineers may be engaged to deal with in any of its stages.

Payment for services shall be monthly.

General Provisions

1. Upon undertaking engagement a written contract should be entered into stating as fully and clearly as practicable the conditions of the engagement, services to be rendered and amount or rate of compensation.

2. When alterations or additions are made to contracts, drawings or specifications, or when services are required in connection with negotiations, legal proceedings, failure of contractors, franchises or rights-of-way, a charge based upon time in office and field and all overhead expense should be made in addition to the percentage fee agreed upon as in case of B-1 and B-5 of the table.

3. In case of abandonment or suspension of the work at any time an adjustment of the fee shall be made on the same basis as that of the partial payments or by application of the per diem rates for all work done previous to notification of abandonment. Engineers should keep their records so that such cost may be accurately determined.

4. When services are required other than those reasonably to be expected for proper fulfillment of the contract per diem charges may be made, if the work involved be of sufficient magnitude, in addition to percentage fees provided for.

5. Engineers may with propriety undertake all the work in connection with the project, including business, legal and other matters, in which case the fee shall be the subject of special agreement.

6. It should be recognized that in any project undertaken by an engineer there may be many problems requiring the services of a specialist. Testing and inspection of materials at factory or plant shall be construed as coming within this class. The cost of such specialist shall be paid by the client or owner.

7. Drawings and specifications by any method of payment for services are to be considered the property of the engineer but the client is entitled to receive a reasonable number of complete records of the same. All other copies shall be paid for by the client on basis of actual cost.

8. It is for the best interests of the client or owner that the engineer be given full direction of the work during the construction period, or, if this is impracticable, that the client employ experienced inspectors approved by the engineer and working under his general supervision.

New York City's Immense Budget

The budget of New York City for 1921, adopted on Dec. 6 by the Board of Aldermen just as framed by the Board of Estimate and Apportionment, totals about $346,000,000, besides which there is an estimated deficit in the education appropriation of some $25,000,000 for which provision must yet be made. The 1920 budget, not including the deficit, is about $72,000,000 above that for 1919 and is expected to call for a tax rate of from 2.75 to 2.85.

Earth in Foundations Considered as an Elastic Solid

Deductions from Angle of Repose Theory Disputed—Earth Not To Be Regarded as Non-Cohesive and Granular—Tests Cited To Support New Theory

By Lazarus White

President, Spencer, White & Prentis, Inc., Engineers and Contractors, New York City

RECENT investigations show clearly that earth in foundations behaves as an elestic solid of low strength and low shearing value, and much progress in the proper understanding of foundations has been made when the subject has been approached with this thought in mind. The principle involved is simply the treating of earth as any other structural material, ascertaining its relation of stress to strain or, in common parlance, of loads to settlements.

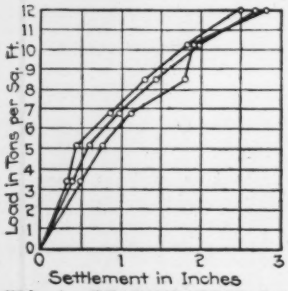


FIG. 1. BEARING TEST ON EARTH UNDER FARMERS LOAN AND TRUST BUILDING

Progress has been made in the art of securing earth samples by borings and test pits, as well as in placing footings at any desired depths by sheeted pits and pneumatic caissons. But these methods have been classed as branches of an art, and it has been claimed that not even a beginning has been made in a real science of foundations. Various attempts have been made to classify soils minutely as different varieties of sands, clays, etc., and to ascribe a definite bearing value to each class, but this has led to confusion. In extensive mathematical investigations earth has been considered as a granular material without cohesion and with different angles of repose. The result has been to increase the confusion and to discourage investigation into problems which are of fundamental importance in the design of many engineering structures.

It is believed that establishment of the principle that earth under load behaves as an elastic solid is a real beginning in the science of foundations. This article presents a discussion of tests supporting the above principle, together with a description of its application in developing a system of foundation construction.

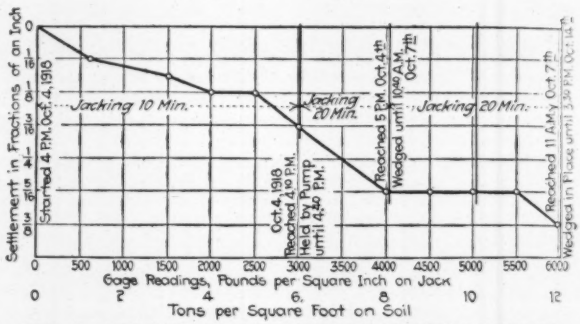


FIG. 2. BEARING TEST ON EARTH IN OPEN GROUND

The bearing value of soils should be stated in terms of settlement—5 tons for a settlement of 1 in. for instance. Such tests can be readily conducted and plotted as in Fig. 1, which represents a test carried out at the Farmers Loan & Trust Co. Building, New York City. The soil, which was well compressed and undisturbed, consisted of 88 per cent sand and 12 per cent clay. The load was applied continuously and increased uniformly over the entire duration of the test (20 min.) by a 6-in. hydraulic jack. The bearing area was 4.1 sq.ft. Each curve represents the settlement at one corner of the bearing block.

A similar test was conducted in an open lot (see Fig. 2) for Armour & Co., McLean Long, engineer, at 14th St. and 10th Ave., New York City, from Oct. 4 to 14, 1918. The soil was coarse, sharp sand to a depth of 15 ft. below the filled ground. A 50-ton jack was used imposing a load of 8 tons per square foot for 65 hr. 40 min. and 12 tons for 7 days, 4½ hours. In this case a time element was also introduced to satisfy the Building Department requirement. By means of the gage a wide range of tests can be made quickly and much light thrown on the behavior of soils. A glance at the curves

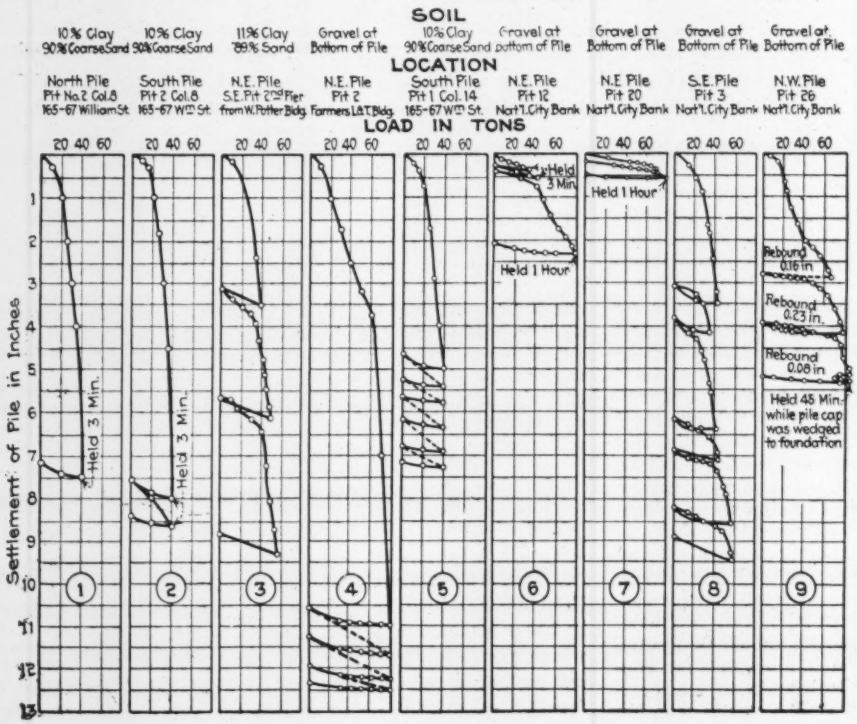


FIG. 2A. SETTLEMENT AND REBOUND CURVES FOR 14-INCH PILES

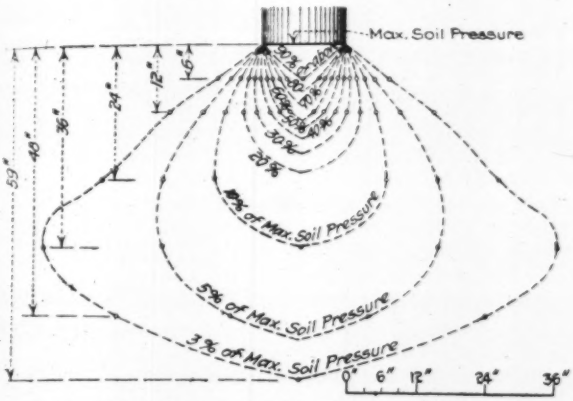


FIG. 3. LOAD DISTRIBUTION BY BULB OF PRESSURE

of Figs. 1 and 2 will show plainly that the earth has the properties of an elastic solid. This is shown still more clearly by tests, Fig. 2A, where much higher pressures were used. These tests were made under the direction of J. F. Greathead for the Public Service Commission. The curve plainly shows distinct elastic properties, including recovery or "rebound." But the settlement, on reapplication of the load, to a greater amount than the rebound was a rather unpleasant discovery for the underpinning specialists and led to further investigations.

About the time the above tests were made, some interesting tests were published in the *Engineering Record,* March 13, 1915, p. 330. These tests were made at the Pennsylvania State College on a large scale and several interesting curves were published. Graphically, the distributions of pressures were measured at various distances and depths from the load applied by a hydraulic jack, the resisting pressure being measured on a similar area of the bottom of a large box by a scale beam. Tests on different soils and with different pressures gave very similar curves, particularly for the greater depths and eccentricities. Using the Pennsylvania State College data as a basis, Mr. Greathead plotted the bulb of pressure under a 14-in. pile as shown in Fig. 3.

It is believed that thus for the first time the distribution of soil pressure below a footing was given qualitatively and quantitatively. A little study of the "bulb of pressure" will enable one to understand how a soil can take great pressures, the bulb merely spreading the load over such a great area that the unit pressure is reduced to a value that the soil can sustain without settlement. The bulb also explains rebound and resettlements. When the load is released, an elastic expansion of the bulb takes place, but in so doing it partly breaks down. It is formed again at a lower level by a reapplication of the load. An examination of the bulb of pressure discloses further interesting things, particularly the closeness of the different intensities of pressure near its top, and that in no sense has earth in this condition liquid properties and that it is a true solid. It shows also that a footing can be approached closely without encountering lateral pressure.

The formation of the bulb of pressure has been photographed by a camera placed before the glass front of a box within which sand was compacted by a superimposed block. An inspection of fine wet sand subjected to a pressure of 40 tons per square foot revealed that it became quite dry, had a vertical cleavage and in fact had been turned into an incipient sandstone.

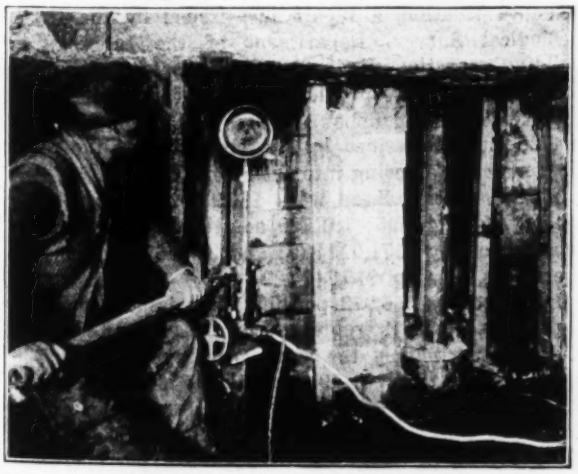


FIG. 4. JACKS MAINTAIN LOAD ON FOUNDATION PILES

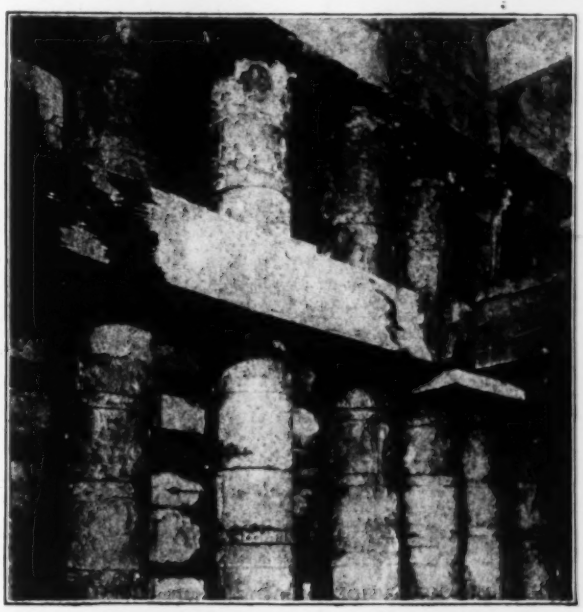


FIG. 5. PRETEST CYLINDERS IN UNDERPINNING FOR KUHN-LOEB BUILDING

The data shown in Figs. 1 to 3 were accumulated previous to 1916. Recent investigations of the joint committee on stresses in railway track of the American Society of Civil Engineers and the American Railway Engineering Association have disclosed much confirming evidence. They indicate that the ballast below the railway ties, whether of broken stone, gravel or sand, showed truly elastic qualities. The committee also found the pressures on the ballast at various depths below the ties and published a diagram of these pressures similar to, but not as complete as, that of Fig. 3.

A correct understanding of the action of a spread footing leads directly to an understanding of all other types of footing, such as piles and caissons. Each pile, cylindrical or tapering, forms a bulb of pressure. If the pile is cylindrical, the bulb is at the base. For a tapering pile the bulb extends along the pile but is on the same projected area as that formed by a cylindrical

pile of the same cross section. A group of piles forms a large spread footing through overlapping bulbs of pressure, which simply transfer the load to a layer of soil at the base of the piles. If the bearing value of the entire area is sufficient little settlement takes place; but if insufficient there will be a general settlement over the whole area. Placing more piles within the original area will do little good.

A splendid opportunity in 1915-17 was given for application of this recent knowledge. Only about 20 per cent of an unprecedented underpinning job on William St., New York City, had been completed, and the worst buildings had still to be underpinned by the use of 14-in. sectional steel piles. The assessed valuation of these buildings was about $40,000,000 and the frontage 3,000 ft. It was seen that if the "rebound" were eliminated,

FIG. 6. FOUNDATION CYLINDERS WITH WEDGING POSTS IN PLACE

the problem would be solved, and the bulb of pressure retained permanently below each sectional pile. To accomplish this result (see Fig. 4) the load of the jacks was maintained on the pile until the wedging beams were securely placed, the rebound being held down to about $\frac{1}{16}$-in. whereas the full rebound is about $\frac{3}{8}$-in. Reapplication of the loads showed no settlement of the pile up to the original test load, but only a negligible elastic compression of the bulb. Observations were kept over long periods by means of the Berry sctrain gage with the same result.

The first application of this method gave wonderfully good results, the Bank of America settling only $\frac{1}{4}$-in. during the whole process of going under the footings, underpinning piers up to 600 tons in weight, cutting off half of the footings and excavating 20 ft. below them. The Kuhn-Loeb Building, a 20-story structure, was underpinned in a similar way, the front row of piles being almost entirely exposed, as shown in Fig. 5. In this method of underpinning the loads were carefully computed and each 14-in. cylindrical pile was assigned a load of about 40 tons, but to give a definite factor of safety each pile was tested to about 60 tons.

The application to a new building came next at William and John Sts., where a stratum of fine sand extends to a depth of about 140 ft. A new 20-story building was projected, but would have to be at least two stories high within a few months after the property was acquired so as to anticipate the zoning law, which on that street would permit of an 11-story building only. All the material below the footings was quicksand. The architect observing the success of the underpinning methods along William St. appealed to the contractor's engineers to help him out, which they did by devising what is now known as the "Pretest" system of foundation. This system applies the knowledge acquired, as described in this article, and also the technique of underpinning. But knowledge is science and technique is art, and science and art should go hand in hand.

This work presented three unusual features: (1) The erection of a building simultaneously with the construction of the foundation; (2) the securing of a foundation with a definite factor of safety; (3) the reduction of settlement to low limits. It is believed that all these were accomplished with resulting economy for the owners of the building. The methods employed were described in the *Engineering News-Record* of Dec. 6, 1917, p. 1060. Briefly, backfilling was placed over the cylinders, with wood posts resting on the cylinders and embedded in the fill, a concrete girder being then cast on this backfilling and posts. The steel grillages were then placed and erection was started. As the work progressed, the backfill was removed and the cylinders were loaded successively by hydraulic jacks. When the desired load was reached, I-beam posts were placed between the pile head and the base of the girder. After thse had been wedged tight the jack was removed and the I-beams were concreted.

The erection progress was slower than had been expected, so that by the time the building was eighteen stories high all the cylinders had been tested, wedged and corrected. A group of cylinders with wedging posts ready for correction is shown in Fig. 6. A 50-ton load was assigned to each 19-in. cylinder, but each was tested to 70 tons to give a factor of safety. Similar foundations have been used in three additional cases.

It is believed that the "pretest" system of foundations owes its success to the proper application of the principles set forth in this article.

Building Activities in 1919

In view of the present unusual conditions in the housing situation, a report just issued by the U. S. Geological Survey, Department of the Interior, on building operations in the larger cities of the country in 1919, by Jefferson Middleton, is of interest. This report shows the number and cost of buildings erected in 128 cities, classified by the character of the principal material entering into their construction.

In these cities there were 186,933 new operations, costing $951,047,495; 131,729 additions, alterations, or repairs, costing $171,024,832; and 20,846 miscellaneous operations, costing $15,246,422.

In 141 cities 365,972 permits were issued or buildings erected in 1919, representing a cost of $1,302,998,607. Approximately the same cities reported 210,538 building operations in 1918, costing $430,041,365, and the record for 1919 thus shows an increase of 155,434, or 74 per cent, in operations, and of $872,984,242, or 203 per cent, in cost. The average cost per operation in 1919 was $3,560.

Trend of Highway Development —A Survey

Indiana's Practice

THIS *is the eighth of a series of articles on the highway situation. It discusses chiefly the task of bringing, by maintenance, the old gravel and dirt road system into a serviceable state prior to final improvement.*

The ninth article of the series will appear in next week's issue.—EDITOR.

INDIANA this year has regenerated a large mileage of its state highway system by maintenance. Important roads have been paved and pavement construction will be extended, but maintenance is the more notable accomplishment; (1) Because it has involved

ONE TYPE OF INDIANA HIGHWAY TAKEN OVER FOR MAINTENANCE

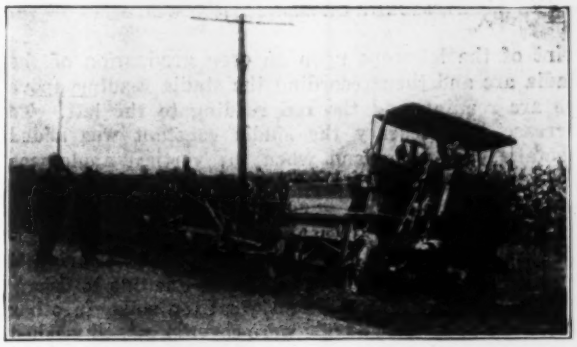
reconstruction to an extent which ordinarily is not comprehended in maintenance; and (2) because it had to be inaugurated by an organization in process of creation under limitations of directing personnel which have thrown an ungenerous burden on the department's heads. As a working organization the state highway commission is virtually only eighteen months old and all of the routes of the state highway system have not been definitely located. These facts also have affected maintenance practice.

In 1920 Indiana took over approximately 3,600 miles of highway, to be improved and maintained by the state. Except for a small scattered mileage of pavement, these state highways were gravel or earth roads. Ordinarily the gravel roads, except on certain main routes, were not of modern high-class gravel construction; many of them were little more than gravel surfaced trails. Formerly these roads had been maintained by the counties. With state control in prospect, the counties had for a season or two done little maintenance work. When, therefore, the state highway department assumed the task of maintenance, the roads as a whole were in bad repair. Maintenance in many cases involved virtual reconstruction, including widening, ditching and resurfacing.

Obviously, highway maintenance, as practiced in 1920 in Indiana and as it must continue, under present plans, to be practiced until the roads are substantially reconstructed is a quite different task than it is in states having gravel and earth roads completed to permanent grade prior to maintenance. Emphasis of this fact is important, if a clear conception is to be had of the trend of highway development in Indiana, and this emphasis is given best by views of actual maintenance operations. The distressing state of repair shown by Fig. 1 was not common but it was encountered and many miles of road had to be provided with shoulders and ditches, as shown in Fig. 2, before maintenance in the true sense was possible.

Organization for maintenance is based on the patrol system. Under the chief engineer of maintenance are five division engineers each in charge of a territorial division of the state roads. Each division engineer has under him five or more superintendents each in charge of half a dozen or more patrolmen, a mechanic and two or more special gang foremen. The equipment of a patrol is a motor truck, a light blade grader, two drags, a plow and small tools. In the extensive reconstruction work of this year gangs have often been grouped and labor and equipment exchanged, but the plan permits of true patrol organization involving personal responsibility for distinct sections of highway as the roads are put in shape for maintenance.

The funds available for maintenance are the automobile license fees and the inheritance tax. Construction is financed by a one-mill tax on real property. At present the future amount of this fund is in doubt, it being held by the tax commissioner that the tax applies only on the original assessed valuation which is about half the present assessed valuation. Legislation will be required to clarify this situation. With taxation on the full valuation, construction funds in 1922 should approximate $12,000,000. The total Federal aid available is $4,726,239 and of this $2,724,271 is now covered by project agreements. In county work this year, there have been unusual financial difficulties. Counties in many instances have been unable to market their low



MAINTENANCE GENERALLY INVOLVED PRELIMINARY DITCHING

interest bonds and projects have been held up often after contracts had been let and construction had begun. It is, for these various reasons, the general opinion that clarifying legislation is needed to place highway development on a definite basis financially.

With about 210 miles of pavement under contract a little over 75 miles were completed in 1920. Transportation shortage of materials explains the small percentage of construction. The progress on bridge work has been even less favorable. Transportation difficulties in obtaining commercial materials is leading to serious study of local pit development and, particularly, of methods of using pit-run gravel. The specifications now hold rigidly to definite ratios of sand and gravel, so

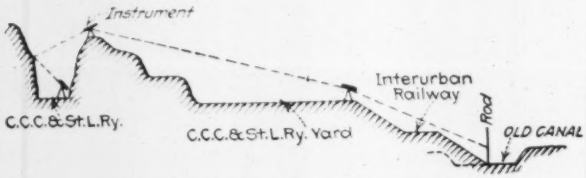
their modification in respect to aggregate mixtures is among the possible developments. Paving methods, as in most other states, continue along old lines.

Indiana is in the process of finding herself in state highway improvement. Her greatest obstacle appears to be difficulty in appraising the magnitude of the task before the highway department. A sort of penury has been practiced, therefore, in building up the technical directing organization which has put too heavy a burden of detail on the directing heads. Breadth of organization needs to be secured. With legislation which will clarify uncertainties in financing road work, this policy will set highway development in the ways of modern practice.

Cross-Sectioning With Stadia Arc

By F. W. Medaugh
Dept. of Engineering, Johns Hopkins University, Baltimore, Md.

In measuring cross-sections for the railway valuation work of the Interstate Commerce Commission the value of the Beaman stadia arc has been demonstrated. A light instrument was used, consisting of a telescope mounted upon a small revolving plate supplied with a central circular bubble and fitted to a head similar to that used for leveling plane tables. Attachments for the telescope were the bubble, clamp, slow motion screw and stadia arc attachment. Readings were taken in the customary manner by setting the zero



DIFFICULT CROSS-SECTION WORK

point of the telescope upon an even graduation of the stadia arc and then recording the stadia reading above the arc reading and the rod reading to the left. To increase the accuracy the stadia constant was added mentally each time, and when the vertical angle was large the rodman held a small level against the rod in order to have it plumb.

The chief difficulty was indefiniteness of the original ground line. At the top of cuts the original examination showed generally a dark line due to decaying vegetable matter of the original top soil. In other places the upper toes of fills were covered by soil washed from the surrounding hillside, rendering it practically impossible to tell where the original surface had been. The rodman then held his rod at the present toe and the recorder added to the rod reading an amount based upon the topography of the surrounding slopes.

A recorder, an instrumentman and a rodman composed the cross-section party. In rough country the recorder carried a light 6-ft. rod and gave readings on one side of the roadbed, thus increasing the speed of the party. The readings were recorded on sheets kept in a large loose-leaf binder, a carbon copy being made for the railroad. On small cuts and fills many of the readings were taken with the telescope horizontal. The instrumentman then mentally subtracted the height of the instrument (usually 5 ft.) from the road reading and called out the result to the recorder. Thus the notes showed the cut or fill with respect to the base of rail.

All readings taken with the telescope inclined were reduced in the office with the aid of a table, but as most of the shots were comparatively short it was not necessary to have a very extensive reduction table. The stadia distances from zero to 50 ft. were placed in the column to the left, while the Beaman arc readings were placed at the top of double columns, from which the horizontal distance and difference in elevation could be read directly. When calculating the difference in elevation, the computer had to take into account the rod reading and the height of instrument, and had also to remember that Beaman arc readings between zero and 50 gave negative values, while readings between 50 and 100 gave positive values. To facilitate the use of the table it was mounted on a large wooden roller in such a way that the distances and elevations moved past the stationary Beaman arc readings as the operator revolved the roller.

In level country it was questionable which was the better method of taking measurements, by stadia and Beaman arc or by hand level and cloth tape. The former method was a little more accurate in reading elevations, but was not quite as rapid, even though many of the instrumentmen were extremely expert. In many light fills made from side borrow by scrapers there was no sharp line of demarcation between side of fill and side of borrow pit. Measurements could be made then much more rapidly with the hand level and tape, for the distance could be taken to the approximate toe of fill and the rodman could then hold his rod on the original ground on the far side of the borrow pit while the elevation was being read.

If the country was at all rough, however, the use of the stadia and the Beaman arc was found in most cases to effect a decided saving of time, in special cases at least 50 per cent. When double lines of box cars obstructed the sights it was a simple matter to set the instrument on the roof of a car to take the section, being careful to locate the position of the instrument with respect to the center lines both as regards distance and elevation. This procedure was specially valuable in yards where there was constant shifting of cars so that measurements with a tape would be attended with danger and loss of time.

A specially difficult problem solved successfully in this way was the measurement of the grading quantities of the Big Four yards at Wabash, Ind., as shown in the accompanying view. The main line here was in 40 to 50 ft. of cut and was separated from the yard by a mass of rock. The yard tracks were partly in cut and partly on fill, the fill sloping down to an interurban line and then into the bed of an abandoned and partly filled canal. The computers were furnished by the railroad with notes giving the original ground line and the closeness with which this line fitted the section taken spoke well for the accuracy of the work.

South American Ties for Pennsylvania R.R.

Investigation of the hardwoods of Central and South America as material for ties is to be made by the Pennsylvania System in view of present high prices of ties in this country, the cost and life of the tropical woods being the main points. Under normal conditions this railway requires from 5,000,000 to 6,000,000 ties annually and the average net cost has risen 100 per cent since the beginning of the war, according to an official statement.

An Analysis of the Proposal to Establish a National Department of Public Works

By Lieut.-Col. C. O. Sherrill
Corps of Engineers, U. S. Army, Washington, D. C.

THE proposal to create a Department of Public Works has been urged for many years by members of the engineering and contracting professions, with the avowed purpose of bringing under one head all engineering and construction activities carried on by the U. S. Government. Although advocated for many years by individuals, it is only since April, 1919, that this question has been actively taken up and advocated by engineering societies and contractors' associations with a carefully organized propaganda directed by the National Public Works Department Association. The activities of this association have led to the introduction in the U. S. Senate and House of Representatives of a bill to create a Department of Public Works, known as the Jones-Reavis Bill (S-2232, H.R.-6649).

The most important provision of the bill consists in the conversion of the Department of the Interior into a Department of Public Works, and the placing in that department of all engineering, construction and related activities now distributed throughout the various departments and independent bureaus of the Government. It also provides that the secretary of this department must be appointed from the engineering profession; that each assistant secretary must also be specially qualified by training and experience for his particular service; that the tenure of the assistant secretaries in office is for life or good behavior, subject to removal only for inefficiency or malfeasance in office, or physical disability. These assistant secretaries are to be charged respectively—one with all governmental matters of engineering design and construction; one with all governmental architectural design and construction; one with all governmental scientific work and surveys; and one with all governmental land and legal matters. In other words, one assistant secretary must be an engineer; one an architect; one a mapping expert; and one a lawyer.

Objects of Bill

The ends to be accomplished by this bill as set forth in the propaganda of the Public Works Department Association are briefly as follows:

To create an industrial organization along the lines followed so successfully by American industries; to secure centralization with resultant large economies of overhead; to eliminate rivalry and competition for appropriations; to provide a special technical organization to do engineering work for other departments; to secure standardization and simplification of Government contracts and specifications; to provide a complete business organization available in case of war for its construction activities; to render aid to the budget system; to serve as a regulator of our national industries; to provide a means of broader training for the Corps of Engineers, U. S. Army; to bring the United States into line with other important countries in having a Public Works Department; to provide for co-ordinated technical research.

The advocates of the Department of public works cite, as the principal reasons for the creation of such a department, the following: That there would be improvement in the administrative organization of the national government; that efficiency would be promoted in overhead administration, that duplication of effort would be avoided, with better utilization of plant and personnel, and with the standardization of specifications and procedure; that economy and efficiency of the other departments relieved of public works would be promoted; that a permanent corps of civilian engineers would be created that would be of great public advantage both in peace and in war.

It is argued that the administrative branch of the federal government has grown up piecemeal, on no well-thought-out plan, with the result that as the government activities have extended their scope, many inconsistencies of assignment of functions have resulted, with much overlapping and lack of co-ordination. One of the strongest points made by the advocates of this measure is that there will be a single head to all the related activities of the Government along engineering and construction lines, apparently allowing the elimination of duplication not only of work done, but of organization, personnel and plant.

Arguments Against the Creation of the Department

The principal arguments against the creation of this Department of Public Works have been well summarized by the Chamber of Commerce of the United States in its referendum submitted to the component chambers of commerce throughout the United States, March 30, 1920, which resulted in the rejection of the proposal. These are briefly as follows:

(a) The proposal is too vague and indefinite for adoption, especially as definiteness and exactness are supposed to be fundamental qualities of proposals made by engineers.

(b) While reorganization of all the activities of the federal government might well be undertaken by Congress in the interest of logical arrangement, such reorganization should be based upon a careful examination of the governmental functions for which these departments were brought into being, and not by a piecemeal consideration, as proposed by this bill, such an effort having an inevitable tendency to create many new non-essential departments of government at a time when the number of Cabinet officers is so great as to form an unwieldy body. Instances of these new departments having an equal or greater merit than the Public Works Department are: Department of Education, Department of Public Health, Department of Public Welfare, Department of Air Navigation, Department of Transportation. The evil results of the proposal are already evident in the effort to prevent the placing of all construction activities of the War Department in the hands of the Corps of Engineers by the perpetuation of an additional and unnecessary Construction Division within this department.

(c) The inefficiency of the present arrangement of engineering and constructing services has not been demonstrated.

(d) Economy would not be promoted, but expenditures would, on the contrary, be increased. Each of the bureaus of this new department will inevitably build up a large organization of clerks and other employees for itself. Instead of allowing each department to do the minor engineering work incident to its principal function, the Public Works Department will have to be called in to build each item, no matter how trifling, as for instance, a few miles of telephone line for the Forest Service, which could under this bill no longer be constructed by its own employees when not otherwise engaged.

(e) The Public Works Department at best would be a misnomer, as the United States does not have public works of the kind described by the proponents of the measure of

sufficient importance and suitable for transfer to warrant the setting up of a new Department of Public Works, nor to justify its head having a place in the Cabinet. This department suggests strongly public ownership and operation of utilities not now apparent.

(f) The governmental departments can in other and more appropriate ways secure competent engineering services. This appears to be an effort to increase the permanence, compensation and emolument of one class of government employees, viz., engineers, at the expense of all other classes.

(g) Governmental organization must for success be functional, and engineering is not a function, but rather one of the branches of technique of governmental functions. Engineering is a profession which exists solely for the assistance it can render in the accomplishment of purposes wholly apart from engineering. The head of a government department utilizes professional services of lawyers, engineers, accountants and of various other professional and technical men to assist him in carrying out the functions of his department, but there is no reason why these functions should be subordinated to any of these branches of service technique.

(h) There are many other special objections that will arise from such a concentration of engineering work to be done for other departments, an example being the Office of Indian Affairs, whose function is the guardianship and trusteeship of Indians while they are being brought to the status of citizens. This trusteeship controls more than a quarter of a billion dollars' worth of property. The absurdity of having the trustee withdraw altogether in favor of a lawyer or engineer because legal or engineering questions from time to time have to be settled by the trustee, is self evident. Responsibility for the performance of governmental functions should be made more definite, not dispersed. If the execution of engineering or construction work is placed in one department, and a purpose to which the work contributes in another department, there will inevitably be a diminution of official responsibility upon the official charged with the accomplishment of the purpose. Giving the department head his own professional assistance may mean some duplication, but the advantage to the public in having a public duty expeditiously and properly fulfilled and in having some one person whom it can hold exactly responsible for any failure far outweigh any such duplication.

At first glance and on theoretical grounds solely, the proposal to establish a Department of Public Works to handle all the construction and engineering activities of the government is one that naturally makes a strong appeal to the public at large. To say that one, rather than a number of different heads, shall direct all work of similar nature under the government is a principle to which no one can consistently object, unless there are other and more potent reasons why such concentration should not take place. Since all engineering and construction activities have a certain similarity, it might require but little argument to convince the uninformed on matters of govermental policy that a separate department to handle all these matters should be established. I am prepared to go even further and say that if the disadvantages that will result from such consolidation are not greater than the advantages to be secured, then such consolidation might well be made.

Two Classes of Engineering Work

In drafting the bill for the Department of Public Works, its advocates appear to have lost sight of the two fundamentally distinct classes of engineering and construction works carried on by the government, and in failing to make this distinction they have committed themselves to an illogical grouping of bureaus in the proposed department. These two distinct classes of activities are:

(a) Engineering and construction activities carried on for the public at large and as the primary function of the bureau of service concerned, *i.e.*, the principal business of the bureau and the reason for its existence.

(b) Those engineering and construction activities carried on as mere incidents to the primary functions of the departments or bureaus which execute these functions. These incidental activities vary in magnitude from the most minute detail to projects involving hundreds of millions of dollars, and yet, notwithstanding their magnitude, are after all only incidental to some other primary function.

In the effort of the advocates of the Public Works Department to make out a good case for a separate department, they have thrown together a heterogeneous lot of slightly related independent and incidental activities under one head, with little regard at all to the real governmental functions to which these activities are only incidental. Take the case of the Bureau of Indian Affairs and the Board of Indian Commissioners; this bill proposes to place these bureaus under the Department of Labor, while taking from them their engineering, construction and survey work carried on as an incident of caring for the Indians. In other words, the Bureau of Indian Affairs is the trustee for the Indians and is responsible to Congress for their welfare, and yet it is at the outset to be deprived of some of the most essential means for the accomplishment of that end, and with no other argument than that all engineering and construction activities should be grouped together under one independent head. The undesirability of such a proposal would be apparent if it were applied to a trustee in private life, for instance, to the trustee of a minor child. Who could imagine a case where a trustee of a child should not direct all legal, moral or educational activities necessary to care for the child's interest to the time of its maturity.

Bill Held to Be Inconsistent

The proposed bill is equally inconsistent as to what is omitted therefrom, as for example, one of the most costly activities of the Interstate Commerce Commission is the valuation of railroad properties, largely an engineer function. Evidently the advocates of this measure could hardly justify even to themselves the taking away of this important adjunct to the primary functions of the Interstate Commerce Commission, and yet they have done other things even more radical and more detrimental to other departments. For instance, they propose to place the construction work of the Army in this Department of Public Works on the ground that its work is largely of a civil engineering nature, apparently ignoring the fact that the Army does not construct quarters and storehouses solely to get something built, but only that troops and supplies may be protected from the weather and be in constant readiness for war; or in other words, the army's construction work is only incidental to its business of defending the nation.

The General Land Office, however, is left in the Department of Public Works, although its engineering and surveying functions are solely an incident, though an important incident, to its primary function of administering the public lands of the United States for the benefits of settlers. The Reclamation Service is also left in the proposed Department of Public Works, although the building of dams and drainage ditches is an incident only to the administration of reclamation projects and laws for the benefit of settlers on otherwise arid government land. The National Park Service is left in the Department of Public Works, as if its prime object were the construction of engineering monuments rather than the administration of the national parks of the United States as playgrounds for the pleasure and benefit of the people at large.

These inconsistencies in assigning activities are no-

where more obvious than in the assignment of river and harbor improvement to the Department of Public Works, while leaving the Bureau of Lighthouses under the Department of Commerce. No two activities of the Government are more closely related than are these or could be combined under on head with greater advantage. In fact many of the lighthouse districts have their construction and repair work done at this time under officers of the Corps of Engineers in charge of river and harbor work.

The example most frequently given by the Department of Public Works advocates of the inconsistency of the present arrangement of governmental construction activities is that of the Supervising Architect's Office in the Treasury Department. The real reason why this is under the Treasury rather than any other department is that this department is the largest governmental user of public buildings in our cities for custom houses, sub-treasuries, Internal Revenue officies, Federal Reserve banks, etc. What is more appropriate than that the Secretary of the Treasury should direct the construction of the buildings he needs in his business?

Arguments for the Department

The cases above cited are but a few of the many inconsistencies that result from this effort to bring together many apparently similar but actually dissimilar activities to create a Department of Public Works; and the reason for these inconsistencies arises from the fact that the advocates of this measure have failed to realize that there is one and only one vitally important reason for the creation of governmental departments and bureaus, and that reason is that some essential governmental function may be carried out for the benefit of the people of the country. The construction of engineering works cannot by any means be classed as a function of government, but only as one of the many means used by the various governmental departments in carrying out their proper functions. This is clearly shown in one of the most prominent of the arguments for this department, viz., that there are nine federal departments, thirty-five bureaus, and four unattached commissions now engaged in engineering and construction work. This means that every one of the government departments and nearly all the bureaus and commissions find it necessary, in the execution of their primary governmental functions, to do a certain amount of engineering and construction work, just as most of them find it necessary to do a certain amount of legal, educational, commercial and research work, but if they are to be held responsible for accomplishing the purposes for which they are created, then they must be given all of the essential machinery, including construction, for the successful execution of these functions.

Having had some experience as an engineer in the Army, engaged on construction work, and having also been in command of troops for whom construction work is done in the Army, I realize how difficult it is to secure a proper consideration of the object for which construction work is done, even in a small organization and where the engineering and using services are in closest co-operation and associated under one army head. To secure the class of construction work necessary for the different government departments through an entirely independent and outside agency, such as this Department of Public Works, would be almost impossible of accomplishment. Such a roundabout and unworkable arrangement would cause only delays, annoyance and interference with governmental functions.

An Assumed Case of Red Tape

Let us assume a perticular case: The Army has a battalion stationed at Fort Huachaca, Arizona. The battalion commander finds that in the administration of his battalion it will be necessary for him to have a company barrack. In order to get this through the Public Works Department he would report the necessity of it to his army department commander at San Antonio, who in turn would report the matter to the War Department. The Secretary of War would in turn report to the Secretary of the Department of Public Works that a barrack is required at Fort Huachaca. The Secretary of the Department of Public Works would transmit this information through his various intermediate divisions down to his office nearest to Fort Huachaca. This official would then made a survey and an estimate of the amount of money involved in this project, and if he were an official of the best type, would consult with the battalion commander to see if their views agreed. If, however, he did not care to co-operate in this way, he would make up his plans independently, send them back through all the various intermediaries to Washington, and so on to the head of the Public Works Department, who would submit them to the War Department, and thus they would go back once more to the battalion commander, to find out if the plans were adapted to his requirements. It can be readily seen from this simple illustration that it would be impossible to get the desired results by a segregation of construction activities in a separate department, independent of the agency for which the construction is being done.

But the segregation of activities in the proposed department goes much farther than this. In the department itself there are to be four main branches, each under an assistant secretary appointed for life. Before a cantonment for troops under the Secretary of War can be built by the Secretary of Public Works, his assistant secretary "A" must procure the land and do all necessary legal work, assistant secretary "B" must make the required surveys, and assistant secretary "C" must then make the necessary plans. If any architectural design is involved, assistant secretary "D" must be called upon to do this before assistant secretary "C" can begin the work of construction. Before the cantonment would be built under this arrangement the war would be over or the particular battalion out of the service due to exposure.

Engineer Corps Menaced

The Public Works Association has devoted most of its attention for the past year and a half to the Corps of Engineers, U. S. Army, in its propaganda for a Public Works Department, without a rejoinder in the public print from that conservative organization up to this time. In fact, a reading of the bill quoted above discloses that practically as much space is devoted in the bill itself to the destruction of the Corps of Engineers as is given to all the other construction agencies of the government combined. It will also be noted that whereas all other construction agencies of the government are taken into the Department of Public Works bodily, without change of their organization, in the case

of the Corps of Engineers the transfer is arranged so as to take away completely its administrative control over construction activities, allowing such officers of the Corps of Engineers as the Secretary of Public Works may deem necessary to be detailed by the Secretary of War for temporary duty for instruction purposes only in the new department. This proposal to take away from the Corps of Engineers its diversified construction activities is moreover emphasized in all the literature and propaganda that has been issued by the Public Works Association, making it appear that this proposal is aimed more at the destruction of the Corps of Engineers than for the general good of the government as a whole.

In a thirty-page pamphlet of propaganda issued by the Public Works Department Association, approximately five pages are devoted to explaining why the Corps of Engineers must be destroyed. This is advocated in spite of the long and honorable record of achievement of the Corps, free from political influence and graft, dating back to Revolutionary days and extending down to the building of the Panama Canal and to its construction exploits in France. The questionable ethics of these attacks on the Corps of Engineers by the Public Works Department Association seem entirely unworthy of the professional men by whom they are advanced.

Again, the advocates of this measure are absolutely inconsistent, for while urging in one breath the taking away from the Corps of Engineers of the construction activities with which it has been charged by Congress for over a hundred years and which it has carried out with the cleanest of records, this association, in the next breath, to secure efficiency proposes a system of tenure of office practically identical with that in the Corps of Engineers and differing solely in the fact that the officials in one case are commissioned officers, subject to all the dangers and disabilities of the military service, and in the other case are officials of this Public Works Department permanently in Washington. Section 7 of this bill undertakes to make the tenure of office of the assistant secretaries as permanent as is that of the officers of the Corps of Engineers, but with none of the advantages to the government of the latter, due to the possibility of relieving an unsatisfactory engineer officer from his construction duty without the necessity of the elaborate procedure prescribed for removing one of the assistant secretaries.

Another of the arguments used by the advocates of this measure is that it will provide an organization of trained engineers, available for use in war, which is what the government secures much more efficiently under its present system of using the Corps of Engineers to as great an extent as possible on the construction of essential public works in time of peace, in view of the military as well as civil engineering training of this body. When these peace-time construction activities are suspended at the outbreak of war, the Corps of Engineers is free to carry on all needed construction work of the Army in the theatre of military operations and in the United States.

Engineering Council's Committee on Military Affairs, realizing the importance of utilizing the army engineers on public works to the fullest extent possible in peace, as a preparation for war, recently enunciated the following principle:

But the bringing together of the two great divisions of engineering science, military and civil, is only partly done when there is extended to civilian engineers the opportunity for gaining experience as military engineers. The full result will be attained when the military engineers in a corresponding manner are given the opportunity to become experienced as civil engineers. To enable the members of the Corps of Engineers to gain experience in all branches of civil engineering they should have opportunities for service on as much as possible of the general construction work done by the Federal Government, and not be confined to river and harbor improvements, as has been the custom. In addition to this, members of the corps should be assigned for temporary employment with state highway commissions or private corporations such as railway companies, metallurgical establishments, large contracting firms or factories where machinery, electrical devices and other forms of manufactured articles, in which engineers are interested, are produced and where members of the corps can become acquainted with all phases of practical operation.

This would clearly indicate that not only should the Corps of Engineers continue to execute the public works functions which it has successfully executed throughout the past, but that, in the interest of economy and preparedness for war, it should be given added duties of this nature whenever not decidedly disadvantageous to the interests of the government to assign it such additional duties.

The Corps of Engineers is a body of technical men of high standing, poorly paid but honest, whose lives are devoted to the public service, free from political influence; and no possible rearrangement of government functions can ever do more than to secure a similar high quality of service from government officials, whether commissioned or civilian.

In conclusion, it is believed to be established that there should be no Department of Public Works created as a new department or out of the Department of the Interior; that there is a possible necessity of a general reorganization of the government departments as a whole, but that any such reorganization should be based on governmental functions rather than on engineering technique; that the Corps of Engineers should continue as in the past to be charged with the execution of public works of construction to the fullest possible extent, in the interest of honesty, economy and reparedness for war.

Investigation of Drill Steel Undertaken

The Bureau of Mines is taking up actively an investigation of drill steel. Many users of drill steel feel that the improvements in that product have not kept pace with the improvements in drilling machines. The matter has been the subject of recent conferences between Dr. F. G. Cottrell, the director of the Bureau of Mines, D. A. Lyon, supervisor of experiment stations, and bureau specialists with representatives of various types of mining enteprises. The testimony of users in the districts where the rock is hard is wholly to the effect that the failure of steel has become a very serious problem, due to the loss of time on the part of high-priced labor.

B. F. Tillson, of the New Jersey Zinc Co., has made a special study of the causes of breakage in drill steel and will co-ouerate with the Bureau of Mines in the study of the problem. Mr. Tillson's investigations lead him to believe that the blows of the drill hammer set up vibrations comparable to sound waves and that nodes are caused by the concentration of these waves at certain points in the drill. This leads to prompt fracture. When a flaw or sand hole comes within the area of concentrated wave effect, the failure of the drill takes place almost immediately.

The Bureau's specialists, who are to be assigned to this problem, will be sent to the manufacturing plants to discuss the matter with officials there. A collection is to be made of broken steel so that the breaks may be studied.—*Engineering and Mining Journal.*

Irrigation Water Divided Between United States and Canada

Under International Agreement Flow of St. Mary and Milk Rivers Systematically Shared by Montana and Provinces

BY BENJAMIN E. JONES
Hydraulic Engineer, U. S. Geological Survey, Washington, D. C.

CONTROVERSIES over the division of irrigation waters in the western United States are frequent. Similar controversies arose on the St. Mary and Milk Rivers, in Montana and in Alberta and Saskatchewan, Canada, previous to 1909, and the fact that the contending parties lived in different countries did not make it easier to settle the dispute. This article will tell how an amicable adjustment was effected by an international treaty agreement for a division of the flow of the two streams between the two countries by a joint commission and how the division is being made year by year under the joint supervision of the directors of the U. S. Reclamation Service and the Reclamation Service of Canada.

St. Mary River, in the Hudson Bay drainage basin, rises in the mountains of Glacier National Park, in Montana, and flows northward into Canada where its water is used for irrigation. Milk River, a tributary of the Missouri, rises in the low hills adjacent to the St. Mary River drainage basin, flows northward into Canada, turns east, and finally, after flowing 216 miles in Canada, returns southward to the United States. The size of the drainage basins of these two streams, as indicated by the accompanying map, might suggest that Milk River would yield the larger flow, but a study of the character of the two drainage areas, as illustrated in the photographs here reproduced, shows why the glacier-fed St. Mary is a much better irrigation stream than the Milk, whose upper tributaries reach only as far as the foothills of the Rocky Mountains and whose lower valley is a dry prairie. As a result, during periods of long-continued drought, when irrigation is most necessary, Milk River goes dry, while the snows on the mountain peaks that drain into the St. Mary are melted by the hot summer sun, and the maximum flow occurs at that time.

In 1901 or earlier the U. S. Reclamation Service, then a part of the U. S. Geological Survey, proposed to remedy this condition on Milk River by diverting the water of St. Mary River into the basin of the Milk, where it could be used to irrigate land in the lower end of Milk River Valley in Montana. After years of discussion an agreement between the United States and Canada was reached in 1909, and a treaty was made, under which the water of the two streams was divided equally between the two countries with one exception. To protect the rights of irrigators who prior to the making of the treaty had begun to use the water of the two rivers, a prior right to 500 sec.-ft. of St. Mary River, or so much of that amount as constitutes three-fourths of the natural flow of the river, was given to Canada, and a like priority on Milk River was given to the United States. As during the irrigation season there is nearly always more than 500 sec.-ft. in St. Mary River, and very seldom that much in Milk River, this exception was somewhat in Canada's favor. But Canada had been using St. Mary River water, and the United States that of Milk River, so this adjustment was probably adopted because it seemed to be the best one that was practicable. The actual division of the water was to be carried out under the direction of an International Joint Commission established by the treaty.

In 1917, the U. S. Reclamation Service completed its canal from St. Mary River to the top of the Milk River divide, and in May, 1918, the International Joint Commission met and issued a provisional order for the division of water for that year. A provisional order was necessary because different interpretations of certain parts of the treaty had been made in the two countries. Hearings and arguments on the questions at issue, which have not yet been decided, fill three large published volumes, besides a mass of testimony, briefs, etc., filed but not printed. A decision by the commission on the disputed points is expected soon. To carry out the orders of the commission, the United States named A. P. Davis, director of the United States Reclamation Service, as its representative, and Canada named E. F. Drake, director of the Reclamation Service of Canada. These two men, through their engineers in the field, divide the waters of the two rivers in accordance with the order of the commission.

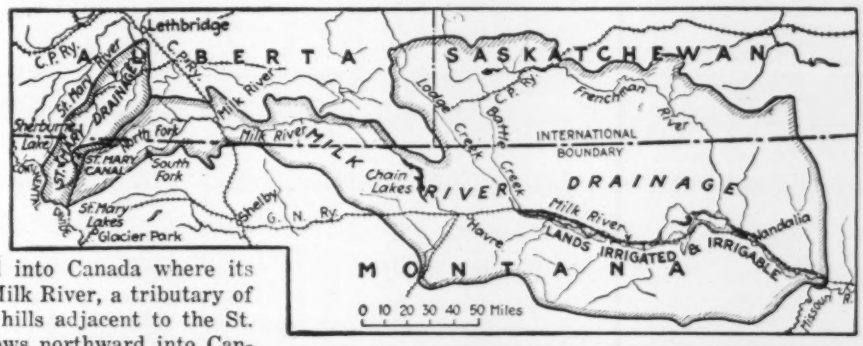
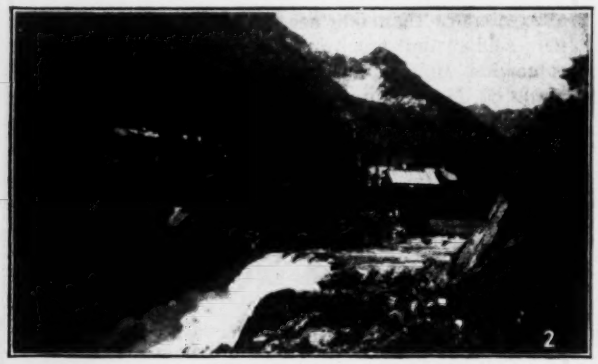
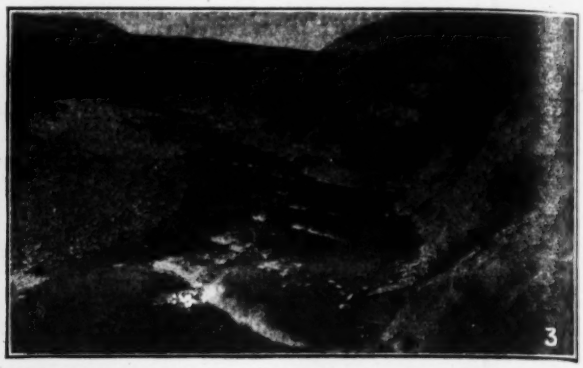


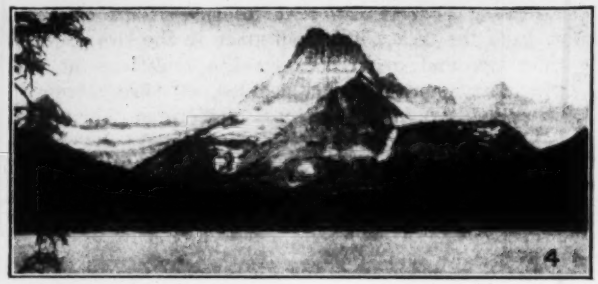
FIG. 1. ST. MARY AND MILK RIVER DRAINAGE AREAS, OVERLAPPING INTERNATIONAL BOUNDARY

The smaller drainage area, because of its location in the mountains, has the larger yield. Under international agreement and jurisdiction the two streams are gaged and their flow divided (see text) between irrigation projects in the state of Montana and the provinces of Alberta and Saskatchewan.

The main engineering problem involved in the division is the accurate measurement of the quantity of water flowing in the streams and canals and the determination of the time required for water to travel given distances along the river beds and canals. For determining the flow of streams that cross the international boundary, the Reclamation Service of Canada and the U. S. Geological Survey have maintained joint stations since 1912, and there are at present nine such stations on these two rivers or their tributaries, and on the U. S. Reclamation Service canal diverting from St. Mary River. The cost of installation is borne equally by the two countries, and in the operation of the stations measurements are made at frequent intervals by engineers from both sides. At the end of the season the results are worked up jointly by the two organizations. In addition to these co-operative stations others are separately operated in the two river basins by the representatives of each of the two governments.







FIGS. 2 TO 5. VIEWS ON ST. MARY AND MILK RIVERS IN THE UNITED STATES AND CANADA

(2) Gage shelter and control on Swiftcurrent Creek at Many Glacier, Mont. (3) Gaging station on St. Mary River at international boundary. (4) Typical view of St. Mary River drainage area, early July. (5) Upper Milk River at Pendant de Oreille Police Post, Alberta. Note the contrasting character as regards water yield of the St. Mary River drainage area views (2), (3), (4) and the Milk River drainage area view (5).

After satisfactory measurements of the stream flow are obtained the problems involved in the actual division of the water under the commission's order are not difficult. First, it is necessary to determine the natural flow of St. Mary River, as Sherburne reservoir (see *Engineering News-Record,* Feb. 21, 1918, p. 366) constructed and operated by the United States, is on Swiftcurrent Creek, one of its principal tributaries. The water entering the reservoir comes mainly from two streams, so that by installing on these streams gaging stations equipped with water-stage recorders, it is possible to get a very close estimate of the daily inflow. Comparison of the inflow with the outflow gives the amount daily stored or released by the United States. The natural flow at the international boundary is then determined from the measured flow plus the amount diverted above, with proper allowance for storage.

Seepage losses in the St. Mary Canal are measured at three stations equipped with Stevens and Gurley gages. Measurements at these stations also show the amount of water diverted from St. Mary River to Milk River by the United States. As the seepage loss in the upper half of the canal returns directly to St. Mary River and can be rediverted by Canada, the records of the middle station on the canal, where it crosses St. Mary River, are used for purposes of division. The water received by Canada is measured at a gaging station at the international boundary. Canada also maintains stations showing the amount diverted from St. Mary River in that country and at a station near the mouth of the river showing the water not utilized for irrigation. The city of Lethbridge takes its municipal supply from the river near its mouth.

On Milk River the main determinations necessary are the natural flow of the river, the inflow from the tributaries, particularly the large tributaries from the north whose courses lie in both countries, and the seepage loss. An interesting problem, although it is not international in character, is the determination by the U. S. Reclamation Service of the natural flow of Milk River below Havre, Mont., allowance being made for losses by seepage and evaporation. The natural flow of Milk River during the irrigation season is nearly all subject to old claims of private companies and individuals, but the diverted St. Mary River water belongs to the Milk River project of the Reclamation Service. On Milk River stations are maintained on North Fork above and below the point where the St. Mary water enters, and the flow at the upper station combined with that at a station on South Fork of Milk River gives the natural flow at the upper end of Milk River. Farther down stream are stations at the town of Milk River, in Canada; at the eastern crossing of the international boundary, where the stream returns to the United States, and at Havre, Mont., above all diversions in the United States. During dry seasons those stations show the seepage losses in over 300 miles of river channel, for at such times there is practically no inflow between the upper and lower stations. During wet years a large number of tributary streams must be measured. The losses by seepage and evaporation in 1919 amounted to about 100 sec.-ft., out of 400 sec.-ft., flowing at the upper end of the river. During very hot spells this loss increases somewhat, and in fact the influence of temperature on losses is marked.

Other gaging stations are maintained along the international boundary on the principal tributaries of Milk River from the north, Lodge and Battle creeks and Frenchman River. To acquire general information for the Milk River project, the southern tributaries of Milk River are measured, as well as the main canals. A station at Vandalia dam, below the last diversion, shows the amount of water not utilized for irrigation from the Milk River drainage basin.

In dividing the water, estimates of daily discharge are ordinarily made at intervals of about one week, but during periods of rapid fluctuation daily computations are necessary. Any discrepancies in the division of the water are thus discovered and corrected in the course of a few days. Tables are prepared showing the inflow and outflow from Sherburne Lake, the natural flow of the rivers, the amount to which each country is entitled, and the water received by each. If either is receiving less than its share under the treaty the headgates of the canals or the gates at the reservoir are adjusted.

The accompanying table is a sample of the statements supplied to the irrigation officials of Canada. Those for the United States are similar except that the last two columns relate to the United States.

DIVISION OF ST. MARY RIVER WATER BETWEEN CANADA AND THE UNITED STATES, AUGUST 3-7, 1919

(Quantities in Second-Feet)

Date	Diverted by U. S. R. S. Canal	St. Mary River at Boundary	Total	Stored Water Released	Naurtal Flow St. Mary River at Kimball	Canada's Share	Canada's Excess (+) or Deficiency (—)
3	389	470	859	203	656	492	—22
4	389	480	869	198	671	500	—20
5	386	475	861	233	628	471	+ 4
6	385	470	855	259	596	447	+23
7	385	457	842	257	585	439	+18

The first column shows the water diverted by the United States, the second that received by Canada; the sum is the amount of water in the river. From this is subtracted the stored water released, to give the natural flow of the river, from which is determined the share of each country.

As a rule the quantity of water flowing at any station is determined from the gage-height records of water-stage recorders by means of a station rating table, which is kept up to date by frequent current meter measurements. The field work of dividing the water has been carried on now for practically three years without misunderstanding or disagreement, with no complaint from either side, and although the division must continue as long as the water of the two rivers is used for irrigation the lapse of time should make the possibility of disagreement more and more unlikely.

In the United States, the stream gaging is done by the U. S. Geological Survey in co-operation with the U. S. Reclamation Service. In Canada, it is carried on by the Reclamation Service of Canada. The actual division of water is made by representatives of the Reclamation Service of each country, and the writer acted in that capacity for the U. S. Reclamation Service in 1918 and 1919. The photographs accompanying this article were taken by R. J. Burley, assistant director of the Reclamation Service of Canada.

Insects Destroy More Timber than Do Fires

The average annual loss of yellow pine in Klamath and Lake Counties, Ore., from insects is 150,000,000 board feet, worth $250,000, or 300 times the average annual fire loss. Fully 8 per cent of the yellow pine timber in private ownership has been killed in the past six years, according to the forest entomologist of the Oregon Experiment Station. The principal enemy is the western pine dark brown beetle, which bores through the bark and excavates long, winding galleries in the soft formative tissue next to the bark; the tree is girdled and its sap flow thus cut off. Epidemic infestations occur in cycles of four to five years, when 6 to 8 per cent of the trees may be killed. For eradication both state and federal funds are said to be insufficient.

Bituminous Surfacing for Plank Highway Bridge Floors

Postpones Renewal of Old Bridges by Producing Light, Easily Maintained Floor—Stiff Construction Essential

By M. W. Torkelson
Bridge Engineer, Wisconsin Highway Commission, Madison

In the years 1914 and 1915 the prevailing price for steel bridges erected in Wisconsin was less than 3c. per pound and reinforced-concrete floors cost no more than $10 per cubic yard. Due to the cheapness of new construction many old steel bridges in good condition but provided with wooden floors were scrapped and replaced with new structures, it being felt that it would be cheaper in the long run and more satisfactory to tear out an old bridge and build a new one with concrete floor than to maintain the old floor and bridge. The rise in the price of materials which has taken place since then, beginning slowly in 1916 and continuing rapidly through 1917 and 1918, changed all this. High costs of construction have made it necessary to keep old bridges in service as long as possible.

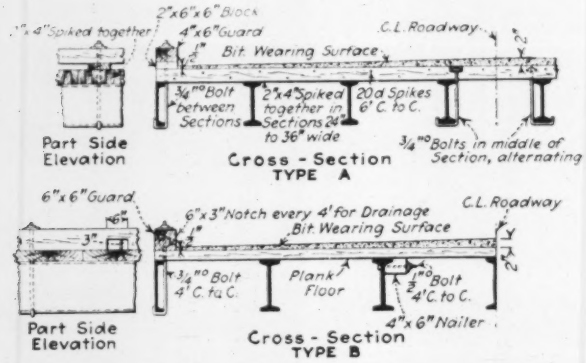
The weak point of the old bridges is the floor, yet they cannot carry the weight of a reinforced-concrete floor and have any live-load capacity left. A light, strong floor which could be maintained otherwise than by replacement was necessary. The Wisconsin Highway Commission first gave this subject consideration in 1917.

At that time Mr. Rollman, then county highway commissioner of Shawano County, at present division engineer for the Wisconsin Highway Commission at Green Bay, began the construction of bituminous-surfaced floors, using laminated units built up from 2 x 4's set on edge, bolted in place and afterward covered with a bituminous surfacing. Several of these were constructed prior to 1917 and are giving satisfactory service. The Illinois highway department had also made experiments along this line, and after correspondence with this department the writer visited several jobs in northern Illinois. Other investigations were made through correspondence. As a result of the information gained from these various sources a memorandum of instructions concerning bituminous floor surfacing was compiled in the spring of 1918 and has since that time served as a basis for installing a number of bituminous wearing surfaces. A standard plan was also prepared for the laminated floor, which is now in frequent use in Wisconsin.

Slightly condensed, this memorandum is reproduced below. It is not contended that the instructions cover the only method of making successful applications. There probably are many others. In fact, experience to date makes it appear that no great skill is required in the construction of bituminous wearing surfaces; that good results are practically certain if a few fundamental requirements are observed:

1. The floor must be tight and the planks must be stiff, so that there is not sufficient deflection to break the wearing coat between adjacent planks.

2. The bitumen should, preferably, be good, heavy material. In one instance where a light tar was used as a seal coat over a heavy tar it appears that the light tar acted as a flux and was responsible for considerable bleeding later on.



BITUMINOUS SURFACING ON LAMINATED AND PLANK FLOORS, WISCONSIN STANDARD

3. The bitumen should be applied in light coats and plenty of absorbent used. Experience will soon indicate just how each should be applied, but the beginner will do well to use about twice as much absorbent as he thinks the bitumen can possibly fill. It will be well to have a supply on hand for future applications in case there should be bleeding.

Bituminous Protection for Plank Bridge Floors (Abstract)

4. The application must be made on a clean, dry surface.

It is possible to protect plank bridge floors very effectively by means of bituminous carpets, using either tars or asphalts as the bituminous ingredient.

In using such treatment it is important that the bridge shall be as free from vibration as possible. To this end all bridges should be carefully examined to make sure that the bridge is resting firmly on its bearings. If necessary, the bearings should be shimmed up to make each take its proper load.

No one factor is of as great importance in securing success as having the plank floor tight. The failures that were observed resulted in part from an improper mixture of the ingredients of the coating, but if the floor is not tight it makes no difference how good the ingredients may be, traffic will force the bitumen through the cracks, holes will develop and the protective coating will be lost.

If new planking is to be supplied the planks should by all means be creosoted, as in this way they will be protected against rot as well as wear. The Illinois State Highway Department, which has had considerable experience, recommends that the plank be matched (shiplapped). Good results can be secured, however, with ordinary planks. The planks should in any case be drawn as tight together as possible and well spiked in place. Cracks between planks which cannot be filled in any other way should be calked with jute or oakum. It would also be well in case new planks are to be supplied to buy these of commercial 4-in. thickness; commercial 3-in. planks are usually about 2⅝ in. actual thickness, which is too thin for present-day loads.

Where the bituminous covering is to be applied to plank floors already on the bridge it is necessary to go to much more trouble to stop the cracks. In case the planks are rather far apart, as much as ¼ in., it will probably be best to pull the spikes and re-lay the planks. Possibly a little dressing of the edges of the planks might be helpful. If the number of wide cracks is not too great it probably will be economical to fill these with wooden wedges, using lath or thin lumber from packing cases which will fit snugly and can be driven between the planks, cut off flush with their tops, and toe-nailed in place so that by no possibility can they be forced through. Small cracks should be caulked with jute or oakum.

Previous to the application of the bitumen care should be taken to make sure that the planks are clean and dry. This result can be secured either by sweeping with a good stiff broom or by scrubbing with water. If it is possible to use water under pressure this is the best method. Probably a combination of the washing and the sweeping will be most effective. In any case the essential thing is to have all dust, dirt or vegetable matter absent, as these will prevent the proper adhesion of the bitumen to the planks. A sufficient time should elapse after washing to insure that all moisture remaining is thoroughly dried out.

Either tars or asphalts can be used as the bituminous ingredient of the coating. The bitumen should be a good heavy product, Tarvia A or Tarvia X, Trinidad A or even heavier asphalts. Where the treatment is to be given to an uncreosoted plank floor the first application of the bitumen should preferably be a very thin coat of light tar which can be applied without heating, such as Tarvia B, which should be allowed to dry before the succeeding applications are made. The heavier bitumens should then be applied, using ½ to ¾ gal. per square yard.

The temperature necessary to produce proper results will vary with the bitumen. Tarvia A should be applied at a temperature of about 225 deg. F. Trinidad A can often be applied in warm weather without additional heating. Some of the heavier asphalts, on the other hand, will require to be heated to a temperature as high as 350 deg. The proper temperature is that at which the bitumen will flow with reasonable freedom and remain fluid for a sufficient length of time to permit the proper incorporation of the absorbent.

The application of the absorbent should follow the application of the bitumen very closely. The best absorbent consists of screened gravel or stone chips not smaller than ¼ in. nor larger than ⅜ in. The absorbent should be spread carefully over the bitumen with a square-pointed shovel to such a thickness as will just absorb the bitumen applied. As soon as sufficient of the absorbent has been applied to make it practicable the absorbent should be worked into the bitumen by means of a power roller if this is available, or if not by means of tampers. When thoroughly cooled make the next application in the same way.

The finished covering should vary in thickness from 1½ in. to 2 in. at the center of the bridge to ½ in. at the edges. This is sufficient for drainage. The Illinois Highway Commission recommends crowning the planks, but the utility of this appears doubtful when it is considered that no water can come in contact with the planks. A sufficient number of coats should be applied to bring the coating to required thickness, narrowing the applications to produce the crown effect referred to. Each application should be thoroughly cool before the next is made. Travel between applications is not harmful provided the bitumen has cooled off and the surface is thoroughly cleaned before the next application is made.

It is equally practicable to use bituminous coatings on concrete floors. Where the bridge is located on a highway which is treated with a bituminous covering it is practicable to continue the bituminous treatment across the bridge.

Panama Tolls Reach Million a Month

September tolls earned by the Panama Canal were $1,010,166.33, an increase of nearly $74,000 over the August record, although the number of vessels and craft decreased from 301 to 274. The net tonnage of the 256 commercial vessels, according to the *Panama Canal Record*, was 1,008,785 tons, 57,440 tons greater than for August. During the fiscal year ending June 30 ordinary expenses, exclusive of depreciation or interest, for the operation and maintenance of the canal including those of civil government and sanitation were $6,548,272.43. Tolls and other receipts for the same period were $8,935,871.57. Since 1914 the total excess of expenses over revenue for operating the Panama Canal has been $2,231,091.61.

Borrowing Power and a Fair Return For Public Utilities

By William G. Raymond
Dean, College of Applied Science, State University of Iowa, Iowa City

THAT THE fair return on investment in utility properties properly regulated is from one and one-third times the going rate for money loaned such utilities with proper security to one and a half times that rate is the conclusion drawn from the following analysis of lenders' and borrowers' demand. When one loans money on about the best security that any one knows of, namely an Iowa farm mortgage, he intends to loan not more than half of the value of the property mortgaged. When one loans money to an industrial enterprise he proceeds on much the same basis. Looking first to the earnings he lends only so much as shall require an interest payment equivalent to half the reasonably certain net earnings of the enterprise. As in the case of the farm mortgage, the lender requires a value to be shown by earnings capitalized at his demanded interest rate equivalent to twice the sum that he is willing to lend.

Money lent to industrial enterprises is less well secured than is that lent on farm mortgages, and hence although a value of twice the mortgage loan may be ordinary and ample security for a farm loan, twice the value of a mortgage loan in the case of an industrial enterprise is about the irreducible minimum because of the greater risk of the money invested in an industrial enterprise. Usually somewhat more than a reasonably certain earning capacity of twice the interest charge must be shown to secure loans at the ordinary market rate for money.

The investor who loans to an industrial enterprise by the purchase of stock, runs greater risk of loss than he who loans on a mortgage, that is to say, than he who buys the bonds of the enterprise; and it would seem to be reasonable to conclude that he who invests his money in the stock of the enterprise should expect a reasonably certain net earning capacity to be shown, over and above the payment of operating expense and the fixed charges, of at least twice the lending rate on the money that he invests, and almost as reasonable to conclude that a prospect of three or more times the lending rate on the money which he invests is necessary to induce the investment. The net earnings need not be all distributed as dividends—the accumulation of a surplus is a business necessity even with a utility enterprise.

Utilities Not Free From Risk Element

Money invested in a public utility is supposed to be somewhat less hazardously invested than that invested in other entirely independent, free from control, enterprises. In theory this is probably true, albeit in practice it often proves to be untrue. The public, in spite of its oft time carelessly and sometimes wilfully unfair demands on its utilities, believes that because of their monopolistic or somewhat monopolistic character they are less risky enterprises than other independent, free from control, undertakings, and hence should demand a less rate of return on the investment. Probably it would be quite difficult to disabuse the public mind of this attitude, because theoretically the attitude is right and practically it would be right if the public was always fair.

Based on these suggestions that the lender to industrial enterprises expects a reasonably certain net earning capacity of not less than twice the interest charge on the total indebtedness, and usually expects more than this; that the other investor must expect not less than the lender and should probably expect more after paying the lender his interest, and that a public utility investment should be somewhat more secure, even though it is not always so, than an independent, uncontrolled enterprise, the following discussion of fair return on capital invested in a public utility is developed.

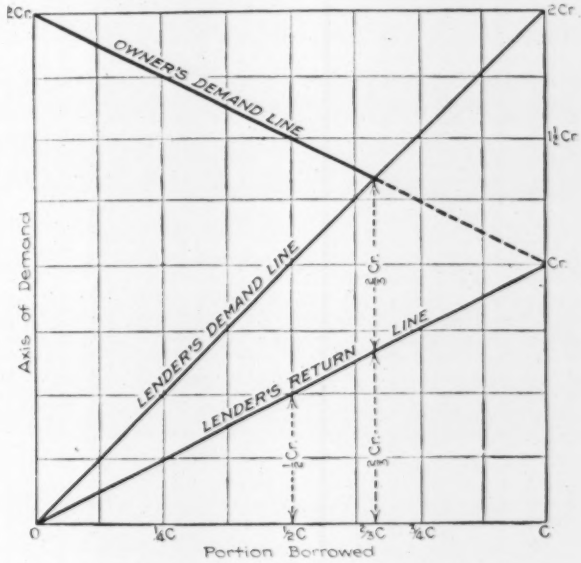


FIG. 1. EARNING CAPACITY TWICE FIXED INTEREST CHARGE REQUIRED BY LENDER

Problem 1. Let be assumed that the lender requires the minimum net earning capacity of twice the fixed charge, and that the owner investor requires this same minimum on the sum that he invests, and let "C" represent the total capital investment in an enterprise and "r" the lender's normal rate of interest. Then, referring to Fig. 1, if none of the money is borrowed the earnings to satisfy the lender investor should be nothing.

If all of the capital is borrowed the annual net earnings to satisfy the lender will be 2Cr. If axes of "portion borrowed" and "demand" are drawn, and a line is drawn from the intersection of the axes to a point 2Cr above C on the axis of "portion borrowed," an ordinate to this line from any point on the axis of "portion borrowed"—as ½C—will be to scale the net annual earning demanded by the lender. So far as the lender is concerned these ordinates measure the total required net annual earnings. The line drawn is called the lender's demand line. A line drawn from the intersection of the axes to a point Cr above C on the axis of portion borrowed may be called the lender's return line since ordinates to this line measure the annual interest payments to the lender—the fixed charges.

If the matter is considered from the standpoint of the owners demand for return and risk—an ordinate of 2Cr erected at the intersection of the axes will measure the demand when nothing is borrowed, and since the owner has nothing invested when all the capital is borrowed, his demand for this condition is only the fixed charge. Hence if a line be drawn from the point 2Cr above the intersection toward the point Cr above C, until it intersects the lenders demand line at Q, the ordinates

to this line will measure the owner's total demand on account of return and risk. The portion of these ordinates below the lenders return line measure the fixed charges, and the portion between the lender's return line and the line last drawn, called the owner's demand line, will measure the earnings on account of return and risk demanded by the owner on account of his own investment.

Up to the point of intersection Q, it is the owner's demand that determines total required earnings on account of return and risk. Beyond Q, it is the lender's demand that determines these earnings, since the owner's demand is less than the lender's demand when the portion of capital borrowed is more than that shown directly below Q on the axis of portion borrowed. Beyond this point the owner will receive more than his demand.

It can be shown by measurement on the diagram and by mathematical analysis that under the conditions of the problem the point Q is directly over the point $\frac{2}{3}$C on the axis of portion borrowed. The conditions of the problem are:

1. The lender demands total net earnings equivalent to at least twice his interest charge.
2. The owner demands total net earnings of twice the lender's rate on the money invested by himself.
3. Net earnings means, to the lender, earnings over and above operating expenses, and to the owner, earnings over and above operating expenses and fixed charges.

The diagram shows that under the conditions of the problem when less or more than two-thirds of the capital is borrowed the total earnings on account of return and risk must be greater than when just two-thirds of the capital is borrowed, the owners demand determining these earnings when less than two-thirds is borrowed and the lender's demand determining when more than two-thirds is borrowed.

Stated in another way, the total fair earnings on account of return and risk are a minimum when two-thirds of the invested capital is borrowed. At this minimum point the total fair earnings on account of return and risk are $\frac{4}{3}$Cr or once and one-third times the lender's interest rate on the whole investment. Of this sum $\frac{2}{3}$Cr goes to the lender and $\frac{2}{3}$Cr to the owner. The lender receives his regular rate of r per cent, on his loan and is secured by net earnings equivalent to twice this sum. The owner receives twice the lender's rate on his own contribution to the investment, and this covers fair return on a safe investment and payment for his risk.

From the standpoint of a public controlling utility enterprise and wishing to be fair it seems to be desirable that just two-thirds of the capital invested in these enterprises shall be borrowed, because with this proprotion borrowed the net earnings required for interest and fair dividends is a minimum. Indeed it may be reasoned that in determining a fair return rate it should be assumed that the utility has adopted this borrowing limit; that if it has borrowed less it should be satisfied with a less return; and that if it has been able to borrow more it is entitled to the extra return resulting.

If this assumption is made, then under the conditions of this problem the fair rate of return on the total investment—not on cost of reproduction—should be one

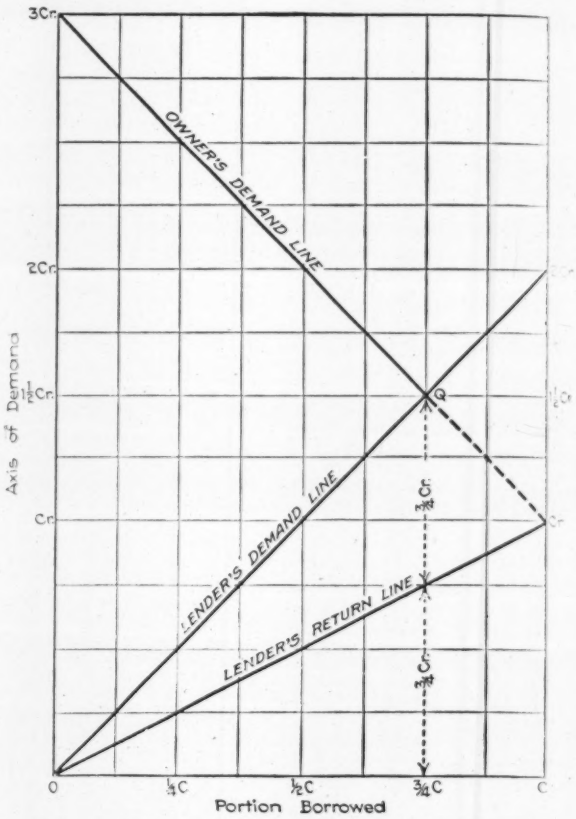


FIG. 2. EARNING CAPACITY THREE TIMES FIXED INTEREST CHARGE REQUIRED BY LENDER

and one-third times the going rate of interest, including the effect of discount, paid by utilities of the kind under consideration at a particular time. Thus, if 6 per cent is the going lender's rate, 8 per cent would be the fair rate of return on the investment. This would pay the lender 6 per cent on his contribution to the capital, and give him ample security, and would pay the owner 12 per cent for his fair return and risk. It is believed that such returns will attract capital to utility investment, and that less than such returns will be not attractive.

As possible allowable variations from the financing plan most favorable to the public, it may be assumed that as little as one-half of the investment is borrowed or as much as three-fourths of the investment is borrowed.

Referring to the figure or to a computation it will be found that if one-half the investment is borrowed, the total earnings on account of return and risk are $1\frac{1}{2}$Cr. The lender receives r per cent on his contribution and the owner 2r per cent on his contribution as before. If, however, one-half of the capital has been borrowed and the enterprise is allowed earnings on account of return and risk of only one and one-third times the lender's rate, then the owner will receive not 2r per cent on his contribution, but $1\frac{2}{3}$r per cent.

If three-fourths of the capital is borrowed it is found, by reference to the figure or to a computation, that once and one-half times Cr is required on account of return and risk, just as when one-half of the capital is borrowed As in that case too, the lender will receive r per cent on his contribution, but the owner will receive 3r per cent on his contribution. If, however, the

regulating body limits earnings to those suitable when two-thirds of the capital is borrowed, the owner will receive $2\frac{1}{3}$r per cent.

Problem 2. Let it be assumed that the lender requires an earning capacity equivalent to twice the fixed charge and that the owner investor requires on his investment a net earning capacity, over and above fixed charges, of three times the lender's rate. Then referring to Fig. 2, it is seen that if none of the money is borrowed the total net earnings should be 3Cr. If all of the money is borrowed the total net earnings should be 2Cr. If $\frac{3}{4}$ of the money is borrowed the lender's requirement and the owner's requirement are the same, namely $\frac{3}{2}$Cr, and as before, if less than $\frac{3}{4}$ is borrowed, required earnings are determined by the owner investor's demand, and if more than $\frac{3}{4}$ is borrowed the earnings are determined by the lender's demand.

Under this problem the most economical arrangement for the public is that the company shall borrow $\frac{3}{4}$ of its necessary investment, and the fair rate of return on the total investment is $\frac{3}{2}$ of the lender's rate; that is, if the company can borrow money at 6 per cent the fair rate of return is 9 per cent.

Again if only half of the capital is borrowed, the lender will receive his rate of r on his contribution, and the owner will receive a rate of 3r on his investment. If, however, the earnings on account of return and risk are limited to $\frac{3}{2}$Cr—or those suitable when three-fourths of the capital is borrowed—the owner will receive only 2r instead of 3r.

It is suggested that Problems 1 and 2 include the limitations of proper public utility earnings under that conception of public control that demands that the earning rate shall be limited to a fair rate of return on the fair value of the property used in the service of the public. To be sure nothing has been said about value. Only investment has been considered. But it is thought that a method has been developed for finding the fair rate of return on investment—that rate which is the least that will attract capital to enterprise, and it is believed that this rate on investment will result in a fair rate of return on value. The rate which may be selected by the application of this method may be applied to original cost to date, or to reproduction cost—which ever may seem to a court to be the proper measure of investment—or as is commonly said, value.

Relation to Fair Value

In the opinion of the writer the method should be applied to original cost to date as nearly as that can be determined, and such application will result in a fair return on the fair value of any property that may be under consideration.

The discussion would seem to result in the conclusion that the fair rate of return on investment in utility properties properly regulated is from once and one-third the going rate for money loaned to such utilities with proper security, to once and one-half times that rate, the lower rate applying to large, old, seasoned, substantial enterprises, in the older communities, with accumulated and maintained emergency surpluses, and the higher rate applying to smaller, newer, less well seasoned enterprises, in new or old communities.

The discussion also suggests some interesting questions with respect to the proper or advisable relative proportions of bonds and stock to be issued when financing utility enterprises.

Factors Influencing Ultra Violet Light Water Treatment

By Russell D. Scott
Chief Chemist, Ohio Department of Health

THROUGH the courtesy of the R. U. V. Co., New York City, the Ohio Department of Health was enabled to conduct some tests on water sterilization by ultra violet light. A single-bulb type of machine, this company's "P S," rated at 120 gal. per hour was used, the influent being supplied from a tank holding 90 gal.

TABLE I. EFFECT OF ULTRA VIOLET RAY TREATMENT OF SEWAGE-DOSED WATER

Rate of Flow Past Lamp, Gal per Hr.	Per Cent Sewage in Influent	Turbidity of Influent, P.P.M.	Bacteria per Cu.Cm. 37 Deg., 24 Hr. Influent	Effluent	B. Coli-Presumptive Smallest Volume Positive, Cu.Cm. Influent	Effluent
175	0.1	0.1	170	12	0.01	1
1.5	0.1	0.1	170	1	0.01	1
95	0.1	0.1	170	0	0.01	10
75	0.1	0.1	170	0	0.01	100
64	0.1	0.1	170	0	0.01	Neg. 100
104	1	1	750	5	0.001	1
79	1	1	750	0	0.001	1
61	1	1	750	1	0.001	10
46	1	1	750	0	0.001	Neg. 10
129	2	2	2,200	95	0.001	0.1
65	2	2	2,200	8	0.001	1
47	2	2	2,200	1	0.001	Neg. 10
54	10	10	7,350	25	0.001	0.1
32	10	10	7,350	5	0.001	10
18	10	10	7,350	0	0.001	10
7	10	10	7,350	1	0.001	Neg. 10

Preliminary tests having indicated that an initial period of at least 15 minutes was required for the lamp to reach an efficient working temperature, no samples were collected until it had been burning for at least 30 minutes.

The first runs were made using as influent Columbus tap water to which had been added fresh, cotton-filtered sewage in percentages as shown in Table I. The results indicate the sterilization of a heavily polluted water at the rate of about 50 gal. per hour with a turbidity of 2. With the influent containing sewage sufficient to produce a turbidity of 10 p.p.m. the effective rate was greatly lowered.

TABLE II. EFFECT OF TURBIDITY ON ULTRA VIOLET RAY TREATMENT

Rate of Flow Past Lamp, Gal. per Hr.	Turbidity of Influent P.P.M.	Typhoid Bacilli per Cu.Cm. Influent	Effluent
175	0	31,000	150
93	0	31,000	15
64	0	31,000	4
180	12	27,000	300
90	12	27,000	50
65	12	27,000	32
175	66	22,000	500
93	66	22,000	180
66	66	22,000	130

To more definitely note the effect of turbidity some runs were made using as influent tap water to which was added 0.02 per cent of a broth culture of typhoid bacilli, followed by graded amounts of a sterile, finely divided clay soil in suspension. The results (Table II) show a progressive decrease in efficiency of sterilization with increasing turbidity.

The effect of color was next studied, the influent consisting of tap water plus 0.1 per cent of sewage and varying quantities of a filtered decoction of black tea leaves. The effect of color (Table III) is evidently pronounced. While by present methods of coagulation

and filtration it is possible to remove practically all turbidity from a water, the removal of color is not in all cases so successful. This fact should be taken account of in considering the U. V. treatment as an adjunct to filtration.

In conclusion it should be noted that the results obtained were from small-scale operation, the actual efficiency of the U. V. process in large-scale operation being much higher.

TABLE III EFFECT OF COLOR ON ULTRA VIOLET RAY TREATMENT

Rate of Flow Past Lamp, Gal. per Hr.	Color, Influent	Bacteria per Cu Cm. 37 Deg., 24 Hr. Influent	Bacteria per Cu Cm. 37 Deg., 24 Hr. Effluent	B. Coli-Presumptive Smallest Volume Positive, Influent	B. Coli-Presumptive Smallest Volume Cu Cm. Effluent
72	1	92	0	0.01	10
49	1	92	0	0.01	Neg 10
70	18	92	2	0.01	1
48	18	92	1	0.01	1
30	18	92	1	0.01	10
68	25	93	5	0.01	1
49	25	93	2	0.01	1
30	25	93	0	0.01	10
75	90	98	38	0.1	1
52	90	98	27	0.1	1
34	50	98	26	0.1	1

Henderson, Ky., results (*Engineering News-Record*, Nov. 29, 1917, p. 1021, article by A. T. Smith) indicate that rates of 200,000 gal. daily per lamp are used, each effluent stream passing under five lamps in series. A progressive reduction in bacterial content is noted at each lamp, the final effluent being practically sterile. However, the results of the present paper emphasize the importance of thorough preliminary treatment to remove turbidity and color, before employing the ultra violet process.

Earthwork Methods on an English Railway

Exceptional care in the building of large railway embankments, in order to prevent slipping of the slopes, has been employed in the construction of a double-track relief line for the Great Northern Ry. of England. These fills, according to the *Railway Engineer*, London, were to be made with London clay, and after examination of a number of old banks made with this material a cross section was adopted with compound or graduated slopes conforming to the final sections to which the older banks have settled. Thus in a 10-ft. bank the slope from the roadbed is 1 on 2, with a base width for each slope of 20 ft.; for a 20-ft. bank this is followed by 1 on 3 for 30 ft. base; a 30-ft. bank has an additional slope of 1 on 3½ for 35 ft.; a 40-ft. bank has still a fourth slope of 1 on 4 for 40 ft., and a 50-ft. bank has this 1 on 4 bottom section continued over a base of 80 ft., making a total width of 165 ft. for each slope of a 50-ft. fill. These fills have a top width of 45 ft.

All material was side dumped and built up in 10-ft. lifts, wooden templates being used by the contractors in dressing the fill to the required section. The slopes were then covered with good soil and sown with grass. The work was done a few years ago and it is stated that there are no signs of slipping.

A cut in loose running sand caused some trouble and this material had to be wasted in spoil banks as it could not be used for fills. At times the steam shovels were overwhelmed by the sand. The very wide cut formed was not left in its rough condition, the excess excavation being filled with hard material and finished to the standard section with lump slag and old broken concrete.

Metal Flume Inspection on the Uncompahgre Project

Life of Metal Prolonged by Coal-Tar Paint—Rusting Mainly at Joints—Cement Patches Used—Ice Kinks Bottoms

RESULTS of the inspection in 1920 of 69 metal flumes on the Uncompahgre Project of the U. S. Reclamation Service indicate that careful attention should be paid to the following points if a life of ten years is to be obtained:

(1) Proper design as to sufficiency of foundation, sizes of bands, washers and cross ties, and a thickness of metal which will obviate excessive deformation; (2) thorough galvanizing; (3) joints which do not project into the current and which avoid cavitating; (4) trapping out of sand and gravel; (5) coating with a good quality of coal tar of joints and of inside of sheets as frequently as wear makes necessary, possibly joints every year and inside surface every two, three or four years; (6) provision for temperature changes either in the individual joints themselves or by expansion joints; (7) provision for self-drainage.

F. D. Pyle, formerly project manager of the Uncompahgre Project, now secretary and manager Columbia Irrigation District, gave these results in the November *Reclamation Record* from which the following notes are taken:

Substructures — All substructures were of wood. Some were untreated, some treated by dipping in creosote oil and some were painted. The substructures that were painted appear to be in the best condition. The untreated lumber was weathered and checked considerably, and the treated lumber showed some deterioration but not as much as the untreated. In a few instances dry rot was apparent in isolated pieces of timber.

In a considerable number of instances where dirt and alkali soil, especially sand or sandy loam, had been allowed to come in contact with the bottom of the substructure posts and braces, rot has made it necessary to cut off and block under the posts and to replace braces in from five to ten years.

A considerable number of crossties were cracked, and gave the general appearance of being too small for the load carried. On a number of the flumes the washers were pulled into the crossties, where the flumes had been tightened to prevent leaks several years afterward. This indicates that the crossties and washers were both too small and on account of the number of flumes affected it is believed that our designs have not provided adequate sizes to give the best results.

Paint—Of the 69 flumes, 59 have received a coat of tar or paint on the interior in order to protect them against rust and erosion. The first tar was used in 1913 but proved to be too brittle and lifeless. In the spring of 1916 various kinds of paint were tried without success. Later several paint companies furnished small lots of paint to make tests. In no case have these paints proved equal to the coal tar placed during the past three years.

In the fall of 1917 and spring of 1918 a number of flumes were treated by applying a coat of water gas tar followed by a coat of coal tar thinned with water gas tar. This made considerable extra work, and in a number of cases the coating was too thin, either running to the bottom of the flume or checking and cracking on the side of the flume exposed to the sun. Since the summer of 1918 coal tar has been used without thinning, with very good results. The best results have been obtained when tar was applied before the flume had been used more than one season and when the tar was applied in warm weather. When applied in cold weather it would not stick to the metal but blistered and peeled. In tarring flumes it was found essential to

clean the surfaces thoroughly, removing all rust from the sheets and from the joints, and to have them perfectly dry and free from dust. The tar was applied hot with heavy brushes or burlap swabs.

Conditions indicate that the joints should be retarred every fall, and the entire flume every other fall. On account of the long irrigation season, it has been difficult to tar as large a proportion of flumes each year as would be most advisable. The tar coat fails by drying, checking, peeling and blistering. In some cases there is a tendency to erode from the bottom, especially where gravel is carried by the water. A heavy coating of coal tar has proved to be the best method of protecting the flumes when properly applied. In tarring 502 lin.ft. of No. 204 flume, 550 gal. of tar were used, or 0.58 gal. per sq.yd. The labor and material cost was 21c. per square yard. An extra heavy coat was given this flume.

Flume metal fails principally at or near the joints, although occasionally pitting occurs along the lower joint arc of the flume. Of 930 ft. of flume used eight seasons, 33 per cent pitted through at the joints, and 9 per cent on the surface of the sheets. Pitting generally took place on the downstream side of the joint, with the exception of a few flumes on the West Canal, where the joint was arranged so that there was a flange giving a double thickness of metal below the joint. In this case the pitting was on the upper side of the joint. Where the workmen had inadvertently changed the sheets so that the flange was upstream, the pitting took place on the downstream side of the joint. Apparently all pitting and rusting takes place from the inside or water side of the sheets and works toward the outside. Where the pitting was in the joints it started at the bottom and progressed outward and uward through an arc of 12 to 18 in. Where pitting was along the sheet, it generally occurred at the bottom, although isolated pitting was observed for from 15 to 24 in. from the botttom.

There appears to be a greater tendency for the metal to pit near the black iron fittings of many flumes than where galvanized strips are used as the inside member of the joint, as in the corrugated type.

It is probable that the velocity of water, especially where heavy silt is carried, seriously affects the life of the metal. In one extreme case located below the big drop on the Montrose and Delta canal, where 200 sec.-ft. of water is turned over a sandstone bluff which gradually erodes, the original flume was found badly pitted along the entire length of the flume. However, in another instance a large amount of gravel and sand has been carried through a flume installed in 1914 without serious results, there being no pitting or rusting visible on the outside of the flume.

It is very probable that where alignment is poor, owing to settlement of foundations, additional strain is thrown on the metal, breaking the spelter and hastening rust and pitting.

Alkali water is apparently detrimental to the metal, but no direct cases can be cited.

The life of the metal may be affected by the type of joint. Some joints have sharp bends which cause additional strain on the metal and a tendency to separate the spelter or galvanizing from the metal. In some types of joints where the inside iron projects into the water section, the tendency is to erode the metal below the joint. In other types of flume, the metal is arranged so as to be double or even triple at the joint, giving increased strength and requiring longer for pitting to make the flume leak.

The metal on only a few flumes has been replaced on account of failure of sheets by rusting and pitting. However, in removing the metal on the CQ system in order to increase the capacity, it was found that only about 60 per cent of the sheets could be used for replacement purposes.

Joints—Very little could be learned as to the tightness of the various joints, as leakage depended so much upon whether the flume was being properly maintained and the condition of the tar coating. Apparently all types of joints can be made reasonably tight. In only one instance has a flume failed by pulling apart or giving way at a joint.

Miscellaneous Observations—Several flumes have been badly distorted by ice. Apparently when the ice in a flume commences to melt it starts on the sides and where the water can run off the weight of the ice rests on the bottom portion of the flume so that the metal and the joint rods are permanently distorted or kinked at the bottom.

In several extreme cases the pitting of metal had progressed to such an extent that it was necessary to line the bottom of the flume with cement sacks covered with about 1 in. of concrete. This had proved a good method of obtaining an extra year or two of service from small flumes. In a number of places on these flumes 4 to 10 sq.in. of cement sack is exposed in one patch where the metal is entirely gone.

In tarring the West Canal flumes, which are badly pitted at the joints, about 1 in. of fine gravel and coal tar was placed in the bottom to prolong their life.

Terms of New Cost-Plus Contract for Hetch Hetchy Tunnel Work

TERMS of the contract recently let by the city of San Francisco for 18 miles of tunnel on the Hetch Hetchy project have attracted the attention of other cities where similar conditions obtain, particularly since the legal decision upholds the validity of this form of contract. An announcement of the decision (Supreme Court of California, Crowe vs. Boyle, Oct. 16, 1920) appeared in *Engineering News-Record*, Nov. 11, p. 963.

In response to a request for a résumé of the features involved, the following was supplied by M. M. O'Shaughnessy, city engineer of San Francisco:

The contract embodies construction on the cost-plus plan, with the following modifications:

1. The contractor's fee is a flat sum fixed by competitive bidding and is payable in installments, including three annual advance payments which assist the contractor in financing his work.

2. While the contractor is required to secure and superintend the labor, and is given the right to "hire and fire" men, no change in wage scale can be made without concurrence of both the contractor and the board of public works. Materials and supplies furnished are purchased directly by the city after competitive bidding, in which the contractor himself may participate.

3. The contract contains a guarantee by the contractor as to maximum unit costs of work which were specified by him in his bid. If the actual costs exceed these bid costs, such excess is deducted from the unpaid balance of the contractor's fee. The method of determining the costs is set forth in detail in the specifications.

4. In order to insure the city's receiving the lowest possible bids both for contractor's fee and guaranteed unit costs, the board of public works was permitted to award the contract to the lowest bidder on either basis.

The contract has been in effect about six months, although payment of the contractor's fee had been withheld until the final determination of the suit. The system has worked very satisfactorily so far, and the City of San Francisco anticipated that the total cost will be less, by some $2,000,000, than the lowest flat price bid received under alternative specifications at the same time.

Swiss Railway Projects

At a recent meeting in Berne, Switzerland, of the board of administration of the Federal railways the agreements concerning the digging of the new Ulmberg tunnel on the line on the left bank of Lake Zurich and the construction of the foundation walls near Steinen, as well as the electrification of the Sion-Lausanne line, were approved and a credit of 40,000,000 Swiss francs granted for these purposes.—*Commerce Reports.*

Test of Trent Activated-Sludge Devices at Pasadena

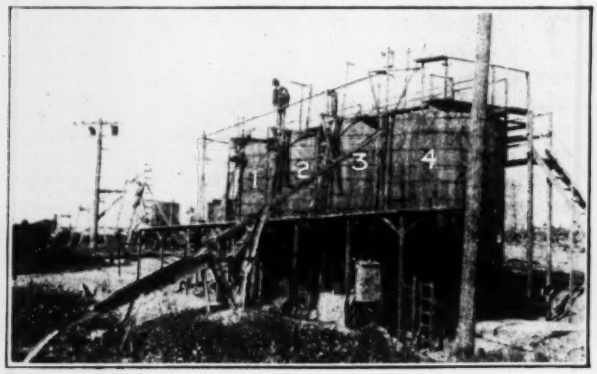
By R. V. Orbison
City Engineer, Pasadena, Cal.

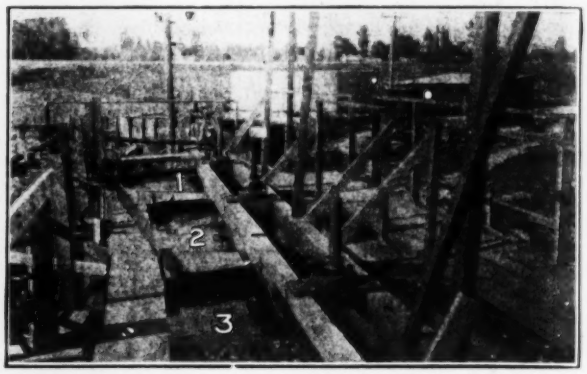
During the latter part of the sewage-treatment experiments conducted under the direction of the writer for the City of Pasadena, Cal., tests were made of an activated-sludge plant in which aëration and agitation are effected by pumping sewage and air into the bottom of the activation tank, the distribution being through revolving perforated arms on the Barker mill or revolving lawn sprinkler principle. This is known as the "L. C. Trent aërator for activated-sludge treatment" and the test plant was built from designs made by the L. C. Trent Engineering Co., Los Angeles, Cal. The underlying idea is similar to the Brosius method of aëration and agitation experimented with at Hermosa Beach, Cal., and proposed as a permanent method of sewage treatment for that city, as described by A. M. Brosius in *Engineering News*, Nov. 9, 1916, p. 890. (The bond issue for the proposed plant at Hermosa Beach failed to carry.) The details are different in that Mr. Brosius placed a "diffusion wheel" or impeller type of pump at the foot of a downtake air and sewage pipe within the aërating tank, while Mr. Trent places a centrifugal pump at and outside of the tank base, with a suction extending upward to a horizontal connection with a suction chamber within the tank, and a discharge pipe leading into the distributor at the center of the bottom of the tank. Other differences in detail may be found by referring to the Brosius article. Experience seems to have proved that the aëration effected by both the Brosius and Trent devices was insufficient, so that supplementary air blowers were necessary.

In the Trent experimental plant as originally designed the process was all comprised in three sewage aërating tanks and a final sludge aërating and settling tank. As explained below, the writer found it necessary to force the settled sludge to a re-aëration tank.

The Trent plant was operated from Jan. 1 to July 15, 1919, when the experiments with activated-sludge, which had begun in 1917 at an earlier plant, were discontinued. Had more money been available the Trent ideas would have been continued, with some changes in detail to increase the mechanical agitation and an attempt to find a pump that would handle more air without becoming air locked. As matters stood when the test stopped, the general conclusion as to the Trent variation of the activated-sludge process was that it required the use of an air blower and a sludge re-aërating tank with filtros plates, and that the results obtained were not nearly as satisfactory as with the old plant. The process was too erratic; was not dependable, as is indicated by the stability curve, and required too close attention, especially as compared with the old plant.

As first operated, the Trent plant consisted of three cylindrical aërating tanks 8 ft. in diameter, and a settling and thickening tank 10 ft. in diameter, all four tanks having an effective depth of 15¾ ft. Each tank was supplied with a centrifugal pump having a capacity of 220 gal. a minute, directly connected to a 3-hp motor, and with revolving air distributers, but as it was found impossible to aërate, thicken and settle sludge in one and the same tank, the machinery was removed from the fourth tank and it was used for settling only, by installing a steel cone, 10 ft. in diameter at the top, 4 ft. in diameter at the bottom, and 10 ft. deep, an air lift being used to force the sludge from the settling tank to the sludge re-aërating tank of the old experimental activated-sludge plant.

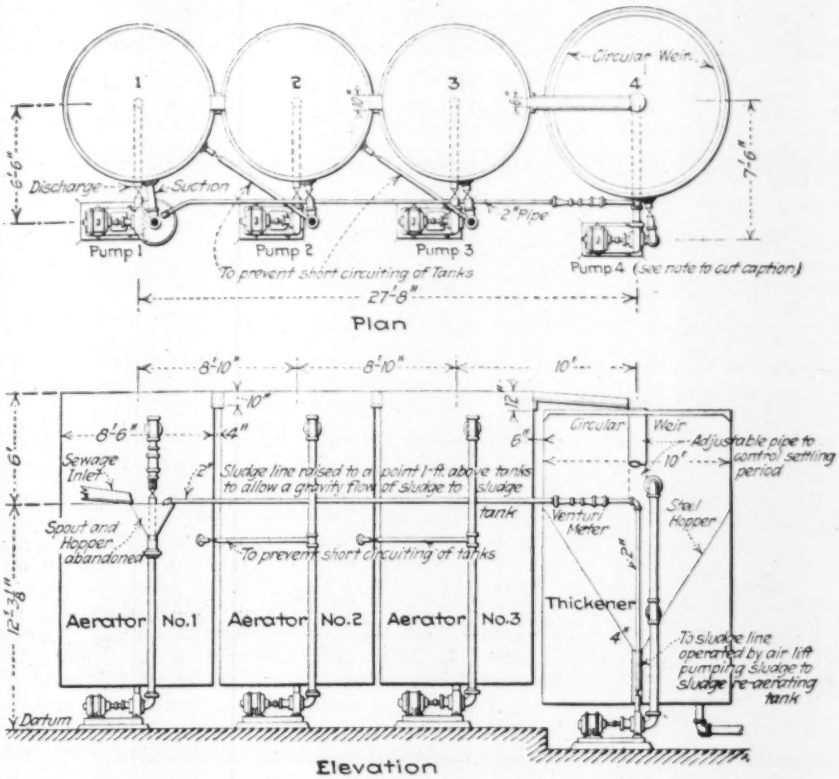




VIEWS OF TRENT ACTIVATED-SLUDGE INSTALLATION, PASADENA, CAL.
Tanks 1, 2 and 3 are for aërating the sewage, and Tank 4 for settling the sludge. It was found necessary to pump the sludge from Tank 4 to a sludge re-aërating tank.

The aëration and agitation pump of each of the three activation tanks drew sewage through an outside suction pipe from a point in the side of the tank about 2½ ft. from the top. The pumps discharged through nozzle arms near the bottom of the tanks, there being three arms in each tank and each arm having attached to it two 1⅛-in. nozzles, spaced so as to cut different paths on the bottom of the tanks, thus preventing deposition of sediment.

At the start it was assumed that sufficient air for oxidation would be drawn down the sewage suction pipe through a number of ⅛-in. pipes extending above the top of the suction pipe. The plan worked in principle but the air thus supplied was insufficient. Consequently we tapped into each pump discharge pipe a ½-in. air pipe connected with a blower, but with the conditions under which the blower was operating it was impossible to force the air into the tanks, and in order to accomplish this, one filtros plate was installed in each of the three aërating tanks. This produced better results within 48 hours.



OUTLINE PLAN AND SECTION OF ACTIVATION AND SETTLING TANKS AS ORIGINALLY BUILT

After trial the following changes were made: (1) The hopper shown in Tank 1 was abandoned and the sewage piped to a Y, connecting with a second pump at the base of Tank 1, pump 4 being moved to this point and delivering the raw sewage to the top of Tank 1. The top of Tank 1 is 5 ft. above the outlet sewer and pump 1 was air-locked too often for satisfactory results. (2) A Nash hydro-turbine air blower was set in the place occupied by pump 4, for reasons stated in the text. (3) The horizontal run of sludge pipe was raised to a level 1 ft. above top of tanks to allow a gravity flow to the sludge settling tank.

The raw sewage enters the first tank at the top. In starting the process, the first tank was filled to the level of the suction pipe, after which the corresponding pump was started, forcing the sewage through the nozzles and making the arm revolve. When the tank was full its contents would overflow into the second tank, where the process was repeated, and thence to and through the third tank in the same manner and on into the settling tank where sedimentation for some 45 minutes took place. To prevent short circuiting, baffles were provided at the connections between the various tanks.

The aërated sewage entered the settling tank through a central pipe 24 in. in diameter and 3½ ft. long, telescoping over which was another 3½-ft. length of pipe which could be so raised or lowered as to give settling periods of various lengths. The discharge (the effluent) was over a circular weir 9½ ft. in diameter, concentric with the tank, which was 10 ft. in diameter.

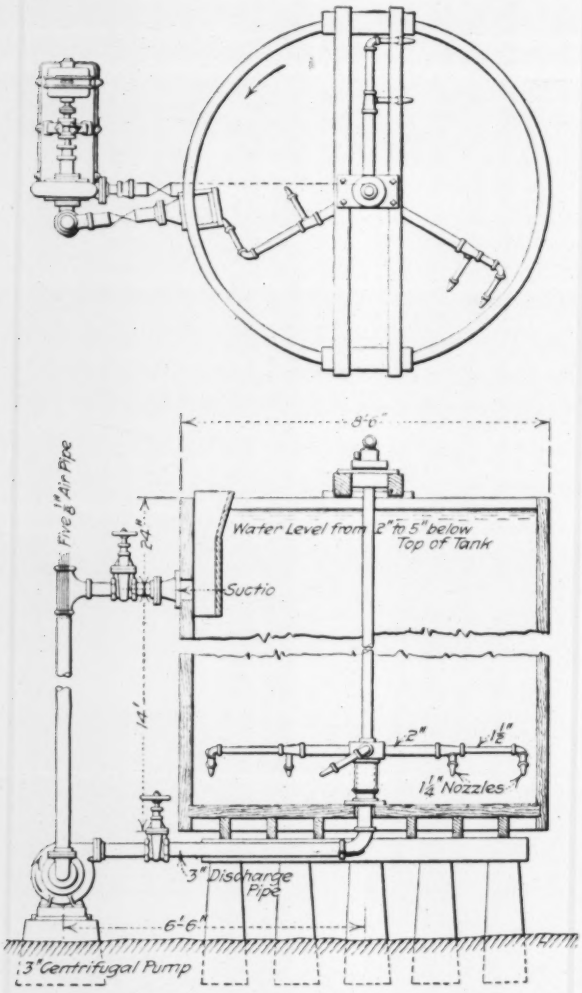
Until ready to use the sludge re-aërating tank the sludge was pumped from the settling tank back into the first activation tank, from which it passed on through the other two and back into the settling tank. When sufficient sludge had accumulated in the three aëration or activation tanks then we began forcing the sludge to the re-aëration tank, as already mentioned. This tank was 5 ft. 9½ in. x 12 ft. 4 in. in plan, had an effective depth of 9 ft. 6 in., and was provided with four filtros plates for air diffusion. After from 2 to 4 hours of aëration the sludge was run into the raw sewage pipe and sent back to the first activation tank. When sufficient activated sludge had been accumulated in the sewage aëration tanks, the excess sludge, beyond what was needed for renewal purposes, was wasted over a control weir which could be set to return any desired percentage of the sludge.

It was thought by the Trent people that the settling tank could be used for settling, thickening and re-aërating the sludge by drawing in air through a 3-in. centrifugal pump and aërating and agitating the sludge by revolving nozzle-arms. This was found impracticable — at least the pump could not provide sufficient air for the volume of sludge that it handled — and so the nozzle-arms were removed.

Before adding the blower to increase the air supply above that afforded by the centrifugal pump and free-air-supply pipes the effluent had a turbidity of 30 to 50 p.p.m. and an average of 50 p.p.m., and an albuminoid ammonia reduction equal to that given by the old activated-sludge test plant (70 to 80 per cent) but with a dissolved oxygen ranging from 0.5 to 4 p.p.m., as compared with nothing to a trace by the old plant. Also our sludge volume after a five-day run was equal to 12 per cent on settling 30 minutes, compared with 6 per cent from the old plant, but with a stability generally ranging from 3½ to 23 hours and once in a while extending to 3, 5 and even 10 days, whereas after the old plant had been running a week it gave a stability of 10 days plus throughout the whole 18 months' test. The bacterial count in the old plant was from 13,000 to 450,000, averaging 143,500, as compared with 200,000 to 2,000,000 for the Trent plant. We also found, before adding the blower, that by filtering through filter paper a sample of the effluent from the third activation tank we got a stability of 10 days, against an average of about 8 to 10 hours without filtration. The raw sewage, filtered, has a stability of about 10 hours and unfiltered of about a half hour. The added air from the blower soon increased the stability to 18 hours and also yielded nitrifying bacteria, which we lacked before.

The Trent tanks were built of the sizes already stated with the desire of giving a capacity of 50,000 gal. with 4 hours of aëration, the same as in our earlier experimental plant. We found that with only 4 hours' aëration the sewage became septic and had to increase the period to 8 hours.

In order to determine what would be needed to meet our requirements, further experiments would have to be made with Trent process, along the lines of supply-



DETAILS OF TRENT AERATOR

ing additional air, the use of different pumps, and the installation of machinery to reduce the cost of operation. While the Trent process made a very creditable showing and compared very favorably with the activated-sludge process, yet it took twice the time, and cost more to operate.

Result of Stopping Chlorination One Day

The town of Pittsburg, Cal., takes its water supply from the Sacramento River and treats it with chlorine. As the population served is only about 5,000, a single small-capacity chlorination plant was considered sufficient. Recently, according to a paper presented by Ralph Hilscher, director of the Engineering Division of the California State Board of Health, before the California Section, American Water Works Association, the chlorine apparatus had to be taken out of service for repairs. For the short time during which chlorination was to be discontinued it was not considered necessary to start up the chloride of lime plant, provided for emergency use, and hence raw water was supplied for one day. As a result, 100 cases of typhoid developed besides a considerable number of cases of other water borne diseases. In view of this experience Mr. Hilscher recommended the installation of duplicate chlorination plants so that one might always be held in reserve.

General Contractors Recommend Rental Schedule

Guide to Estimating Construction Equipment Expense Prepared by A.G. C. Committee on Methods

WITH a view to furnishing contractors with a practical means of estimating equipment expense and determining adequate rental charges the committee on methods of the Associated General Contractors of America has worked out a standard rental schedule for the association. The schedule has been evolved from the records and experiences of contractors, manufacturers and rebuilders of equipment and has been prepared by the research division under the direction of the committee on methods. The schedule, explained in the following paragraphs taken from a recent issue of the association's *Bulletin*, has been approved by the executive board of the association.

Seven items of equiment expense constitute the total rental charge and require consideration in estimating a lump sum contract or in determining fixed rate rentals. The items referred to and their annual proportions of the equipment's initial cost are as follows:

	Item	Per Cent
1.	Average depreciation	12½
2.	Equivalent annual interest at 6½ per cent	4
3.	Shop repairs	6
4.	Field repairs	4
5.	Storage and incidentals	3½
6.	Insurance	1
7.	Taxes	1
	Total annual expense	32
	Equivalent expense on basis of eight months' working time per year	48
	Rental rate per month	4

How Percentages Were Obtained

These percentages and those given in the detailed schedule were determined according to the following principles:

The economical life of a machine is considered to end when its value has depreciated to 25 per cent of the original cost. The average annual depreciation then amounts to 75 per cent of the initial cost divided by the number of years it may be expected to give service. The initial cost of a machine is represented by the cost of that machine delivered at the contractor's yard.

Interest should naturally be charged at the prevailing rate. This may be computed in three ways:

(1) By charging the prevailing rate each year on the depreciated value of the machine.

(2) By charging the prevailing rate each year on the average value of the machine during economical life. For example, when the salvage rate value is 25 per cent the average value equals (100 per cent + 25 per cent) divided by two, equals 62½ per cent.

(3) By finding the proportion which the average value is of the initial cost and charging this proportion of the prevailing rate each year. This proportion is called the equivalent annual interest and shows what interest rate on original cost will yield the same interest as the prevailing rate when applied to the depreciating value of the machine. This is the method used in the above schedule. The average value is 62½ per cent of the original; therefore the equivalent annual rate is 62½ per cent of the prevailing rate, or 62½ per cent of 6½ per cent equals 4 per cent.

Shop and field repairs are separated by reason of a previous recommendation of the committee on meth-

eds that field repairs be considered a part of the cost under cost plus contracts and shop repairs be borne by the contractor and covered by the fixed rate rental charge. This recommendation was made on the ground that an owner should not be made to pay the total cost, for example, of refluing a boiler which may have been burned out principally on another owner's work. The other items of cost require no special explanation.

Owners of equipment find occasion to establish rental rates as follows: (1) For a lump sum or unit price estimate; (2) To owners on cost plus work; (3) To others than client owners. In these instances charges should be made as follows:

(1) The rental charge or equipment expense for lump sum work includes all the items mentioned above.

(2) The fixed rate to owners on cost plus work will include all but field repairs, if this item is paid as a cost of the work. To the amount thus determined may be added a service charge depending upon the policy of the contractor, i. e., whether the service of equipment is included in the profit fee or carried in the rental charge.

(3) The charge to persons other than client owners includes all of the items of expense and an additional amount for profit or payment for the machine's earning power.

A further consideration in each of these cases is the rate for double shift work, where the percentages for depreciation and repairs should be doubled, or nearly so.

The committee desires to emphasize the fact that the values presented in the following table should not be considered absolute in determining a rental charge. A real danger presents itself in using any tabular percentage without investigating the conditions under which the equipment is to work. To illustrate, if the values here given for a standard gage shovel outfit were applied to such an outfit engaged constantly in excavating hard rock the probability is that the charges allowed would not cover more than half the expense. The frequent dobey shots and the dropping of heavy boulders into cars entails a higher rate of depreciation and repairs than is given in the schedule. On the other hand, if this shovel outfit were steadily engaged in digging sandy loam the values given in the table would probably cause the equipment charge to contain a fair per cent of profit.

This schedule is offered to contractors with the understanding that individual judgment and experience should be applied to the tabular values to meet unusual conditions.

The component expenses incurred by the ownership and maintenance of construction plant are expressed in this table as percentages of the initial cost for individual items of equipment. They indicate the probable annual expense without profit under ordinary job conditions and should be included in any lump sum estimate or in determining time rate rental charges. The salvage value is considered to be 25 per cent of initial cost.

Total percentage amounts in the extreme right hand column should be applied to the total cost of a machine including charges for transportation from the factory. This gives the total annual charge, which for a lump sum contract covering a full season is the total equipment expense. For determining a monthly, weekly or daily rental rate the annual amount is divided by the number of such periods in the year during which construction work may be carried on.

TABLE FOR COMPUTING RENTAL CHARGES FOR CONSTRUCTION EQUIPMENT

(Insurance 1 per cent; taxes 1 per cent and storage 3½ per cent for all items)

Items of Equipment	Economical Life Yrs.	Annual Depreciation %	Annual Shop Repairs %	Annual Field Repairs %	Total Annual Charge Percent of Initial Investment %
Auto-crane	5	15	6	5	31½
Auto-truck	3	25	20	20	70½
Auto-trailer	5	15	6	5	31½
Backfiller, power	4	18¾	6	7	37¼
Ballast spreader	8	9¼	6	4	25
Boiler, upright	8	9¼	20	5	40
Boiler, locomotive	8	9¼	15	5	35
Bucket, clam shell	4	18¾	15	6	45¼
Bucket, orange-peel	4	18¾	25	6	55¼
Bucket, drag-line	4	18¾	12	3	39¼
Cars, steel dump	6	12½	8	4	30
Cars, wood dump	5	15	7	3	30½
Cars, flat	8	9¼	4	3	22
Cars, hopper	5	15	8	3	31½
Compressor, steam	7	10¾	6	3	25¼
Compressor, gasoline	4	18¾	6	7	37¼
Compressor, electric	6	12½	3	3	24
Concrete chutes	2	37½	15	15	73
Conveyor, belt	2	37½	7	6	56
Conveyor, bucket	2	37½	10	6	59
Crusher, rock	6	12½	5	3	26
Derrick, wood	5	15	4	4	28½
Derrick, steel	10	7½	4	3	20
Dragline, steam	6	12½	9	8	35
Dragline, gasoline	4	18¾	10	10	44¼
Dragline, electric	8	9¼	7	7	29
Drill, tunnel carriage	5	15	8	8	36½
Drill, traction well	6	12½	7	10	35
Drill, tripod	4	18¾	7	10	41¼
Drill, jack hammer	4	18¾	7	6	37¼
Engine, gas	6	12½	8	8	34
Engine, steam	10	7½	5	5	23
Excavator, cableway	6	12½	4	12	34
Excavator, Keystone	5	15	8	4	32½
Excavator, trench	5	15	8	6	34½
Forms, steel concrete	2	37½	20	20	83
Graders, common road	4	18¾	12	6	42¼
Graders, elevating	4	18¾	15	7	46½
Hoist, steam	10	7½	6	4	23
Hoist, gasoline	6	12½	7	8	33
Hoist, electric	8	9¼	5	3	23
Loco. Indus. steam	9	8½	6	4	24
Loco., Indus. gas	4	18¾	13	10	47½
Loco., Indus. battery	4	18¾	15	4	43¼
Loco., Stand. gage	10	7½	6	4	23
Loco. crane, steam	8	9¼	7	8	30
Loco. crane, elect	8	9¼	6	4	25
Mixer, steam	5	15	12	4	36
Mixer, gasoline	4	18¾	13	8	45¼
Mixer, electric	6	12½	12	4	34
Mixer, paving steam	5	15	13	4	37½
Mixer, paving gas	3	25	16	9	55½
Motors	6	12½	6	4	28
Pile driver, steam	8	9¼	7	5	27
Pile driver, track	10	7½	5	3	21
Pile hammer, steam	7	10¾	7	3	26¼
Pipe, galvanized	3	25	5	6	41½
Plows	3	25	15	10	55½
Pneu. concr. mach	4	18¾	20	8	52¼
Pump, centrifugal	8	9¼	6	4	25
Pump, piston	6	12½	7	5	30
Pump, pulsometer	8	9¼	2	4	21
Pump, Emerson	8	9¼	2	4	21
Rails	8	9¼	5	3	23
Riveter, air	5	15	8	4	32½
Rock channeler	6	12½	7	8	33
Roller, steam road	10	7½	5	3	21
Saw rigs	4	18¾	10	15	49¼
Scraper, wheel	3	25	8	4	42½
Scraper, slip	1	75	25	10	115½
Scraper, fresno	2	37½	25	15	83
Shovel, steam	6	12½	7	6	31
Shovel, gasoline	4	18¾	9	7	40¼
Shovel, electric	7	10¾	6	5	27¼
Switches, fabricated	3	25	3	3	36½
Tower, steel hoist	7	10¾	3	4	23¼
Tractor, wheel gas	6	12½	9	5	32
Tractor, caterpillar	5	15	15	10	45½
Wagons, dump	4	18¾	17	3	44¼
Wagons, hauling	4	18¾	12	3	39¼
Wagon loaders, power	5	15	10	6	36½

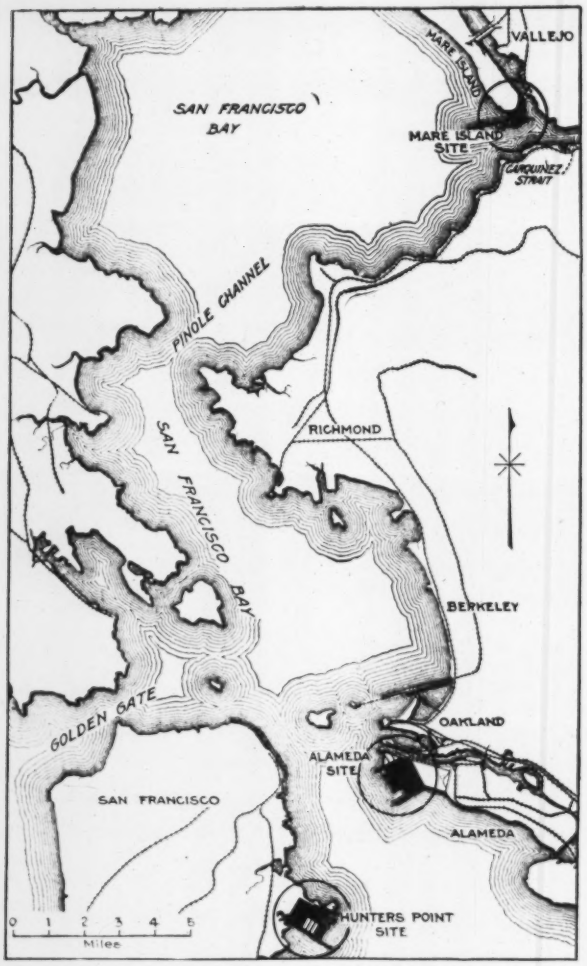
Lumber Cut for 1919

Little variation in the lumber cut of 1919 over that for the previous year is indicated by preliminary statistics of the Bureau of the Census so far available. In 788 identical mills, each of which cut 5,000,000 ft. or more in each year, there was an increase of only 0.3 per cent in 1919 over 1918. On the basis of the production for 1918 this increase will bring the total production for 1919 to 32,000,000,000 ft. The largest increase was in Washington and the largest decrease was in Minnesota.

Three Sites Considered For San Francisco Naval Base

Engineering Considerations Govern in Selection of Location for Large Plant to Cost From $25,000,000 to $50,000,000

NAVAL policy apparently is committed to the immediate construction in San Francisco Bay of a huge naval repair and supply base to cost up to $50,000,000. Reports have been made at different times for some years and a congressional committee has just completed a survey of the situation. It will soon report recommending one of the three sites favored in the earlier reports, namely, Mare Island, the site of the present Navy Yard; Alameda, on the east side of the bay and Hunter's Point in San Francisco proper.



SAN FRANCISCO BAY, NAVAL BASE SITES

Military considerations govern in the selection of a site but it is understood that the balance in this respect is about even and that the selection will hinge on such engineering questions as suitable foundation for the large graving docks, accessibility and service by utilities of all sorts, the providing and maintaining of suitable channels and anchorages and the conservation, so far as feasible, of existing government investment in the Mare Island Navy Yard.

On account of the emphasis laid on the engineering features of the three sites, the matter is a big one in engineering circles on the coast. For that reason there are presented below abstracts of the arguments in favor of each site by engineers who are well acquainted with the situation.

MARE ISLAND SITE, (*By Howard C. Holmes, Consulting Engineer*).—It was universally admitted by naval authorities as late as 1916 that the development of Mare Island as a base for modern fleet units was impracticable for two reasons, (a) the impracticability of maintaining a channel of requisite depth over Pinole shoal in San Pablo Bay, which is the approach-channel to Mare Island, and (b) the constricted width and shallow depth of Mare Island strait, which now constitutes the Navy Yard's waterfront. The Pinole shoal problem has now been solved. In 1916 the army dredged a channel 500 ft. in width and 30 ft. deep at low water and because the silting was less than anticipated the depth was carried to an average of 35 ft. without additional cost. The maintenance expenditure has been relatively negligible. It is now certain that this channel can be maintained to a depth of 40 ft. for any desired width, at a cost and annual maintenance insignificant as compared to the saving over the cost and maintenance of the other proposed naval base site. A plan for improvements at the south end of Mare Island, proposed by Commander Leonard M. Cox, C. E. C., U. S. N., completely solves the Mare Island strait problem because it would place the new major docks and 1,200-ft. piers not on Mare Island strait but on Carquinez straits. This body of water has a depth of 40 ft. and over, a width in front of the proposed base of 4,000 ft. and an anchorage area of 3.55 square miles, greater than any anchorage ground immediately adjacent to 90 per cent of the naval stations of the world. The location of the naval base at Mare Island Navy Yard would mean the retention of a very efficient organization with the wonderful community spirit that exists there. In addition to this, every facility contemplated for the suggested sites in the lower bay could be provided at a cost of more than twenty million dollars less than the cost of providing the same facilities at the other sites. However, this would not represent the total saving because the capitalized value of the cost of a new station, amounting to $50,000,000 should be added to the saving, making a total saving of something like $70,000,000.

ALAMEDA SITE (*By C. E. Hewes, City Manager, Alameda, Cal.*).—The Helm commission report, transmitted to Congress in December, 1917, after eliminating Mare Island as being out of the question for many reasons, stated in substance that the Hunter's Point and Alameda sites offered advantages superior to every other site for the following reasons: (1) lower cost of development for equal areas; (2) proximity to better and deeper anchorage grounds; (3) proximity to labor supply; (4) lower cost of maintaining channels of approach; (5) sufficient area for indefinite expansion. The report further stated that either of these two sites could be developed into a satisfactory base, and although the Hunter's Point site has the advantage that dry docks could be built in rock, rather than upon pile foundation, the Alameda site has many more important advantages, to wit: (1) better foundation for all other structures; (2) site gratis (the land has been deeded by the people of Alameda to the Government for naval base purposes); (3) direct railroad connections (the east shore being the

termini of three transcontinental railroads); (4) better passenger transportation, housing and living facilities; (5) direct pipe-line oil supply; (6) better facilities for handling navy stores; (7) from a standpoint of range for indirect gun fire, Alameda has the advantage of being three to four miles further from the open sea; (8) lower cost of development. A series of sub-surface explorations in the form of fifty-seven test piles was made on the Alameda site. These showed that the material forming this submerged flat consisted very largely of sand, gravel and clay with a comparatively small percentage of soft pockets. The comparative uniform supporting power of this material is advantageous in permitting the site to be developed along the most economical lines as regards relative position of shops, piers, drydocks, etc.

HUNTER'S POINT SITE (*By M. M. O'Shaughnessy, City Engineer of San Francisco*).—A naval base located at Hunter's Point would have favorable foundation conditions for large graving docks. Transportation facilities and utilities of all sorts are already available, there is ample land area, adequate channel depths, and all San Francisco Bay as adjacent anchorage. Next to military advantage, the most important requirement of a good naval base is a solid foundation. On this score Hunter's Point has excellent qualifications in the works already constructed there. At Hunter's Point is a green serpentine rock formation which forms an ideal foundation, is easy to work, impervious to water, and requires only 15 to 18 in. of concrete for a lining instead of the dense mass of concrete necessary for structures on pile foundations. Including the submerged areas that can be readily reclaimed there is, a total of 3,035 acres available for naval base purposes. Just off-shore there is a natural depth of 50 ft. of water with current velocities of about 1½ knots. This makes it easy to land and handle ships, at the same time that the current is strong enough to prevent the deposit of silt. Very little silt comes from the relatively limited watersheds draining into the bay here. Soundings over a 40-year period show very little change in sediment deposits. A particularly advantageous water-supply system, for domestic, industrial and fire-fighing purposes is available.

Airplane Effective in Forest Fire Control

Of the 196 forest fires sighted and reported this year by the airplanes operated out of the Sacramento, Cal., base maintained by the U. S. Forest Service, 33 per cent were located within ¼ mile of the exact location as later determined by actual surveys on the ground. Ten per cent of the total number of fires were discovered by the air patrol before the rangers knew of their existence; 42 per cent of the fires were reported by radio, while the airplanes were in flight. Besides acting as lookout to detect and report fires, airplanes were used this year to direct fire fighting operations and to patrol fire lines which had been built but which needed watching. If reports from the air showed the line to be clear the fire fighters were kept at work elsewhere, but if the observer reported that the fire had broken away a force of men could be rushed to the spot. In addition to the two planes which have been operating daily on fire patrol service from Sacramento, two planes have also been operated from three other stations, namely, Fresno, Riverside, and Red Bluff.

The "Glunch"—Creator of Ideas

IN THE Dec. 16 issue of *Engineering News-Record* there appeared in the article "Useful Dodges in Surveying," p. 1164, a method of determining the day of the month by making an altitude observation on the sun. A member of the advertising staff of the McGraw-Hill Co., who claims that his wonderful mathematical ability was developed by learning how to figure out his income tax, seeing a wide application of the idea, wrote the following classic for the "Accelerator," an intradepartmental bulletin of the advertising service department of the McGraw-Hill Co.:

Well, you can throw your calendar pad away. There is no further use for it now that a writer in *Engineering News-Record* has pointed out how remarkably simple it is to learn the day of the month without the aid of a printed reminder. His method is this:

If the day of the month has been forgotten make an equal altitude observation of the sun and establish a true meridian. Measure the angle from the meridian to the sun, also the sun's altitude. Compute the declination of the sun by the formula

$$\text{Cos. } Q = \frac{\text{sin. dec.}}{\text{cos. lat.} \times \text{cos. alt.}} - \text{tan. lat.} \times \text{tan. alt.}$$

The sign of the first term of the right-hand side of the equation is minus when the declination is south; the second term is plus where the latitude is south. If the algebraic sign of the result is plus, Q is the angle between the sun and the north point, but if it is minus it is the angle between the sun and the south point. Correct the resulting declination by the hourly distance to obtain the declination at Greenwich. If the observation has been made correctly an inspection of the ephemeris will disclose a declination similar to the computed one, and the date corresponding to this declination is the date of the observation.

As a possible suggestion showing how this idea may be applied to our own work, Ye Editor has worked out a formula for finding a good headline when thoughts on same are completely lacking. It is hoped that copy writers who at times may be suffering from a slump will find this helpful:

If all thoughts are lacking, open up your desk shears and set the points exactly four and sixteen thousandths of an inch apart. Hold the shears three verts from the eye, and measure off the bi-sectional angle which appears on the west wall chart, twenty and one-half bluts from the dixtus. With this as a basis, compute the hypote of the *d q* juncture thus formed, using the figure 86 as a binominal focus. This will give you the following formula:

$$\text{Polq } Y = \frac{\text{mt. M. D.}}{\text{DDS.} \times \text{Ugh}} - \text{zing. fft.} \times \text{osh.}$$

The sign on the upper terminus of the glunch will give you the Grecian declination, Helios. Box this by north meridian by morain surplus by the ancient symbol of Yat. If the glunch fits the deformation caused by the injection of the post-alterioric dixtus of Yat, then the sub-normadial fluxtures will equal its distance from the basic formation of the parent sidius. If the lines converge, the caleidis thus arrived at will set up a corresponding vertuissuge where the west-wall chart overlaps the dixtus. This will give you the letter of the alphabet.

Follow this formula for each letter and your headline will appear automatically.

Truck Makes 24-Hr., Non-Stop Run

In a recent test made upon the Indianapolis speedway a stock model of the Duplex truck, loaded with gasoline, oil and ballast and weighing 8,300 lb., exclusive of drivers, made a 24-hr., non-stop run at an average speed of more than 38 mi. per hour, running the total distance of 930 mi. between 1:57 p.m., Sept. 30, and the same hour the following day.

Better Port Terminals to Develop Nation's Commerce

Abstract of paper by Col. W. J. Wilgus, consulting engineer, New York City, Am. Soc. C. E. PROCEEDINGS, November, 1920, as a discussion of a paper, "Larger Ships, Deeper Harbors, and Better Dredges," presented Oct. 6, 1920, by A. W. Robinson, consulting engineer, Montreal.

THE maritime nation offering the lowest freight rates and best shipping service through superior development of ships and ports will have a pronounced lead over its competitors as instanced in Mr. Robinson's paper and his former paper (*Journal*, Engineering Institute of Canada, February, 1919), summarizing the opinion of British authorities that the development of future world trade will depend on increase in size and drafts of ships and consequently on the improvement of ports properly to serve them. Americans should undertake development of their principal ports to provide ample accommodations, as for instance vessels of the type mentioned by Mr. Robinson having a length of 660 ft., a loaded draft of 36 to 38 ft., and a dead-weight capacity of 25,000 tons.

For proper accommodation of such ships, as the author so well states, channel and slip depths should be not less than 40 ft., with provision for future deepening to 50 ft. There should also be provided trackage for direct interchange between ship and car; electric gantry cranes and other mechanical devices for quick handling of widely varying weight and bulk; slips of generous proportions for movement of ships and all auxiliary water craft; piers of sufficient width for receiving, forwarding, sorting and temporary storage of cargo and for the location of cranes, tracks and vehicular driveways. The aim of such an arrangement is to hasten to the utmost the release of ships, cars and motor trucks, to minimize manual labor and to dispense with the need for ship tackle.

PIER WIDTH A FUNDAMENTAL CONSIDERATION

In the fundamentals of port design pier width is of special importance. The 25,000-ton ship will occupy say 700 lin.ft. of stringpiece, approximately equal to 36 long tons of dead weight capacity per lineal foot. While some consider that shedded "transit" space should be made sufficient for the entire cargo, others believe that one-quarter the cargo may be immediately evacuated from the pier. For the entire cargo, figured at 60 cu.ft. per ton or say 50 cu.ft. per ton of ship's dead weight capacity, equal to 1,800 cu.ft. of goods, with mechanical equipment for tiering 12 ft. high to an average height of 10 ft. for the entire area of shedded space and with suitable provision for aisles and passages, the width of shed required would be 180 ft. For three-quarters of the cargo or 27 tons per lineal foot of stringpiece requiring shedding, in conjunction with the usual ship-ton figure of 40 cu.ft. per ton and an average height for tiering by hand of 4 ft. (5 ft. on the actual space occupied), the width of shed required would be 270 ft. It may be said that a fair compromise between these extremes is 200 ft., to which, of course, there should be added a suitable width for outer tracks and working space between edge of pier and shedded area, and likewise ample interior widths for inner tracks and motor truck driveways.

For double-sided piers this would mean an aggregate width of not less than 550 ft., the lower floor of which would be used for inbound and the upper floor for outbound cargo. Even with a ship of half the capacity under discussion, the pier width should be not less than 340 ft., with all equipment, track and driveway layout having proper relation to the length of the pier. With overhead warehouses there would be need for even greater widths, for additional serving tracks and driveways. These figures are used in a general sense and should be considered merely as indicating the need for adopting liberal widths.

The only 40-ft. channel on the Atlantic coast is at New York, and unfortunately, is now available for little more than one-half of one per cent of that port's 771 miles of water front. Of this meager percentage only one-half is in direct contact with the principal rail carriers, and a considerable portion of deep-water frontage is devoted to uses other than those of legitimate water-borne commerce. And there is as yet nothing planned, apart from the projected Claremont Terminal of the Lehigh Valley R.R., in the way of spacious and well equipped modern piers and accessories, properly adapted to the prompt handling and release of large ships, cars and motor trucks. According to press accounts, several great transatlantic companies intend building new piers on the west side of the Hudson River; but it is reported, as in the case of the New York City Staten Island development, that advantage is not to be taken of the proximity of trunk line railroads to provide tracks on the piers and adequate shedded "transit" areas, so that the railroads and therefore indirectly the public will continue to be burdened with the wasteful practice of rehandling freight by lighter and truck between the termini of rail and ship, and with highly objectionable delays to cars from their use for storage.

EFFECT OF RATE STRUCTURE

One of the causes is unquestionably the provision in the seaboard rate requiring railroads to deliver and receive cargo freight at the ship sling, with no voice in the planning of pier facilities. Another cause is the practice of permitting the lessee, the ship owner, to dictate the character of the port terminal improvement. The result is the creation of piers at the least possible cost to ship interests regardless of the injury done to land carriers, both rail and truck.

The various transportation interests of New York should get together to bring about (a) the revision of the rate structure and more equitable methods of paying for the use of shore facilities properly to distribute cost between rail and water carriers; (b) plans conducive to economies in operation and quick release of ships, cars and motor trucks; (c) whole-hearted co-operation by the Federal government will mean a great deal for the country as a whole.

It should be borne in mind that the investment in port terminals is a comparatively small fraction of the aggregate investment devoted to the combined ocean and rail movement of freight. Therefore a liberal expenditure for the perfecting of the lesser part is fully justified if substantial benefits therefrom will accrue to the plant as a whole, in which are included ships, cars and motor trucks, as well as the shore facilities in general.

[As of interest in connection with Colonel Wilgus' discussion of the requirements fundamental to a satisfactory solution of harbor terminal development, there is published on the opposite page the "Policy" of the Port Development Commission of Baltimore.—EDITOR.]

Large Floating Crane Built in Holland

A self-propelled floating crane of the Atlas type capable of lifting 220 tons, has just been built by A. F. Smulders, of Schiedam, Holland, for the Mersey Docks and Harbor Board at Liverpool. The crane is one of the largest, if not the largest, of its type ever built. It is capable of lifting its maximum load at a reach of 110 ft. from center line to a height of 170 ft. above water, or of lifting 150 tons at a reach of 143 ft., according to *The Engineer* (London) of Oct. 15, 1920. The extreme height of the end of the jib when raised to its highest position is 240 ft. above water. There are two independent main hoists of 110 tons capacity each, attached at a point on the jib having a maximum distance out of 143 ft. They hoist at 3½ to 5 ft. per minute. For lighter service two 33-ton hoist trolleys running along the jib can be used independently or coupled to move together, so that they are capable of handling 66 tons combined; their lifting speed is 18 ft. per minute and traverse speed 29 ft. per minute. The crane was erected complete at Schiedam and was towed to Liverpool with the jib in place.

Baltimore's Port Development Policy

AS AN INITIAL declaration of policy, in undertaking harbor development work, for which $10,000,000 can now be made available, as required by new shipping business, the Port Development Commission of Baltimore, Nov. 8, 1920, adopted nine general requirements published in full below:

It shall be the policy of this commission

(1) To develop the port of Baltimore in accordance with a definite and comprehensive working plan, based on the best modern conception of port design. This plan shall serve as a guide for each step in the development in order that the completed whole may be harmonious in the correlation of its individual parts.

(2) To consider the elemental function of a pier the furnishing of a safe means for the expeditious and economical interchange of freight between land and water carriers and not merely the furnishing of a shelter for a ship so as to insure stability during the process of loading and unloading.

(3) To make improvements for the broad purpose of the widest possible use and benefit of the port as a whole and not solely for the narrow purpose and restricted use by meeting only present conditions or the special requirements of prospective lessees. All structures shall be readily adaptable to future changes in kinds of cargoes, methods of operation and special requirements of future lessees.

(4) To obtain expeditious movement of cargoes between land and water carriers and a maximum of economy by constructing piers large enough to hold the full contents of vessels which can tie up to them, and by making proper provision for the installation of mechanical appliances and facilities to move these contents to or from the piers with the least possible delay to vessels.

(5) To locate all improvements preferably in places where it is possible either now or at some future date to make railroad connections with all the trunk lines entering the city, and to locate warehouses, wherever practicable, so that there will be the shortest possible movement of cargoes from the carriers to the place of storage.

(6) To provide the space and the supports for ample railroad tracks on both the inside and outside of piers so that these tracks may be added at any time required.

(7) To construct transfer sheds with at least two stories wherever the business of the lessee warrants such construction, and when only one story is required at time of construction, to design the foundations and the framework in such a manner that an additional story can be added at any future date with the least possible interference with the operations on the first story.

(8) To build all structures with the primary conditions of stability, permanency and economy.

(9) To have in view

(a) The ultimate concentration of terminals and shipping facilities so that the combined railroad trackage may be made accessible to all piers, and

(b) The unification of the administration of the terminals and shipping facilities so as to assure co-ordination and co-operation of all interests.

J. E. Greiner, consulting engineer, Baltimore, is chairman of the Port Development Commission. $10,000,000 will become immediately available for the building of new piers as soon as lessees are found and $10,000,000 will become available later, in accordance with the recent Baltimore bond issue vote, aggregating $53,000,000. It is expected that work will start early in 1921.

Australian Engineering Jubilee

The 50th anniversary of the Engineering Association of New South Wales was celebrated at Sydney, Sept. 24, At a meeting held in that city Sept. 24, 1870, and called by John Laing an association of mechanical engineers was organized, its first president being John Fyfe, mechanical and marine engineer. Speakers included James Vicars, president; Prof. Warren, president, Institution of Engineers of Australia; James Fraser, chief railway commissioner of New South Wales.

Double-Deck Street and Sidewalks for Congested Chicago

SUGGESTIONS for the relief of congested streets in Chicago made by P. S. Combs, city engineer, include double-deck sidewalks in the downtown or loop district and elevated roadways in the center of certain streets leading from the loop. The upper sidewalks would take 50 to 60 per cent of the pedestrians off the present sidewalks. The roadways would expedite night and morning automobile traffic, taking 40 to 50 per cent of the fast-moving vehicles from the present street levels. They would be operated one way only, out at night and in in the morning. By depressing the street car tracks a few feet and erecting a through-girder roadway structure the usual objection to a double-deck street as to cutting off of light and unsightliness would be minimized.

Other suggestions to improve traffic conditions are: Several underground parking spaces to remove automobiles from the streets during the day; a restriction of heavy-truck traffic to streets provided with reinforced-concrete tracks, and a prohibition of deliveries of heavy supplies during the day time.

In making these suggestions Mr. Combs classifies the traffic as follows: Street cars; automobiles and light vehicles for general business; package and heavy freight haulage for commercial shipment; pedestrians; heavy supply trucks for coal, building materials and quantity supplies for the larger stores. It is his opinion that all of these factors must be considered together since piecemeal solution simply works for the betterment of one to the detriment of the other. The creation of a commission representing all of the interests concerned, to study traffic and to devise means to prevent undue destruction of pavements, is now under consideration by the judiciary committee of the City Council. An ordinance prohibiting any parking in the downtown district beyond that necessary to load and unload passengers or freight has recently been passed in an endeavor to speed up street car and vehicular traffic.

New Garbage Collection Equipment for Dallas

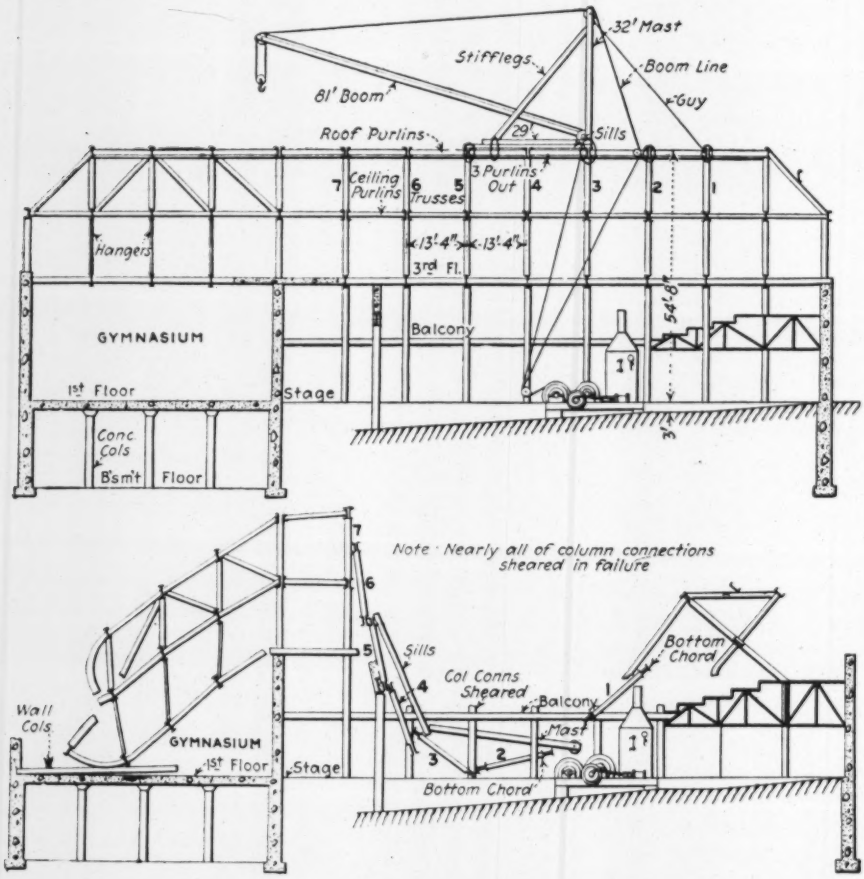
The city of Dallas, Tex., is putting in use a new system of garbage collection. For this purpose new equipment has been purchased, consisting of 40 two-ton, drop-frame, reversible chassis, with 4½-yd. side dump steel bodies. Twenty teams will be used to draw these trailers for the collection of garbage and its haulage to a central point, from which six motor trucks will take the trailers to the garbage dump. The teams, trailers and tractors are divided equally between five districts.

The garbage at Dallas is collected four times each month. It is very light, weighing only 600 lb. per cubic yard. Under the old system of collection there were used 60 team-drawn, 7-yd. wagons and four 9-yd. motor trucks. Each team made two loads per day.

A thirty-day survey showed that each team spent 2 hr. 58 min. per day in loading garbage into the wagon and 5 hr. and 2 min. in going to and from the dump and unloading the garbage. Under the new system each team will spend 8 hr. in the collection of garbage only. It is expected that the same service will be given at a great decrease in cost. For the foregoing information we are indebted to George D. Fairtrace, city engineer of Dallas.

Erection Derrick Falls With Steel Framework of School

THE collapse of a school building in Indianapolis during construction, a few weeks ago, proves upon investigation by the building authorities and the coroner to be a case of highly unusual kind. The steel roof trusses and columns, insufficiently braced by the brickwork of the walls, were pushed over laterally, to all appearances by the side thrust of a derrick set on the top chord of one of the trusses. The entire upper portion of the building was involved in the resulting collapse, as the purlins connecting the several trusses pulled down not only the trusses nearest to the point of initial failure but also a set of trusses at right angles to these in an adjoining portion of the building.



INDIANAPOLIS HIGH SCHOOL BUILDING BEFORE AND AFTER COLLAPSE—LONGITUDINAL SECTION

Walter B. Stern, commissioner of buildings of the city, has supplied sketches reproduced herewith, and states the facts of the accident as determined by the investigation, as follows:

The building was designed to provide an auditorium 90 x 106 ft. and a gymnasium 54 x 90 ft. on the first floor, with balconies at the second-floor level. The balconies at the sides of the auditorium were of reinforced-concrete tile construction, and were in place and hardened at the time of the accident. The entire third floor, designed to be used for a students' lunchroom, was suspended from the roof trusses; of this floor only a small section over the gymnasium was poured, while over the auditorium forms had not even been placed. All the roof trusses and their supporting columns were up. The trusses over the auditorium ran crosswise of the building, being supported on trusses on steel columns about 9 ft. in from the outside walls. The trusses over the gymnasium ran lengthwise of the building (across the 54-ft. width of the gymnasium) and rested on steel columns. The trusses were completely riveted up, but the roof and ceiling purlins, the connections to the columns, and the column splices were only bolted temporarily. The side walls had been laid up only a few feet above balcony level.

Witnesses at the coroner's investigation, conducted with the assistance of representatives of the city's building, police and fire departments, testified that more than half of the holes in these various connections had bolts in them, but the steel structure was not properly guyed to provide the necessary bracing until the walls should be built high enough to brace the structure.

A wooden stiff-leg derrick with 32-ft. mast and with 12 x 12-in. wooden boom 81 ft. long, had been placed on the top chord of one of the roof trusses five or six days previous to the accident. The derrick was rigged and in service on the morning of the accident. The brake lining on the boom-hoist drum of the hoisting engine was practically worn out, and it is probable that the boom was handled in a jerky manner when being lowered.

It was determined at the investigation that the cause of the accident was the improper rigging and operation of the derrick before the steel structure was adequately braced and riveted. The roof trusses were designed to support a load in the finished building many times the weight of the derrick. Testimony given at the investigation supports the view that an unusual thrust caused by the operation of the derrick sheared a connection between a roof truss and its column, causing the truss to start down at one end. The pull on the purlins then brought about the collapse of the remainder.

Yellow Fever in Ecuador

The elimination of yellow fever from the coast towns of Ecuador, as the result of several years of a sanitary campaign, is reported in the *Bulletin* of the League of Red Cross Societies for October, 1920. The last case at the city of Guayaquil is said to have occurred on May 22, 1919. The stegomyia mosquito, carrier of the disease, has practically disappeared.

LETTERS TO THE EDITOR

Does Hydrated Lime Weaken Concrete? Abrams' Tests Discussed Pro and Con

Sir—Prof. Duff A. Abrams of Lewis Institute has rendered a real service to the concrete world through his long series of tests to determine the effect of hydrated lime and other powdered admixtures in concrete. He broke 20,000 specimens, which is far and away, the greatest undertaking ever attempted in this line. This makes it especially a pity that the conclusions which Prof. Abrams draws in his paper before the last meeting of the American Society for Testing Materials, abstracted in *Engineering News-Record*, July 8, 1920, p. 55, are at variance with his figures. In a very proper effort to be thorough in covering the field he has investigated ranges of all the variables, far outside of practical limits. No one can disagree with this, but when the attempt is made to establish straight-line relations by the use of these figures, or to average them in with practical ranges, or to say that because extreme amounts of lime are injurious small amounts will be also, it becomes necessary to refer the public to the figures themselves. Let us quote some of the conclusions drawn from the paper and indicate wherein they are not substantiated.

Conclusion 1—"In general the addition of powdered materials reduced the strength of concrete approximately in proportion to the quantity of admixture. Some exceptions are noted below."

Here all the specimens have been averaged together whether they contain small amounts of lime or 50 per cent, and the statement is made that the "relation is a straight line"; but many of the curves reveal the vital fact that small amounts increase the strength, even though larger ones reduce it. This is so evident in one figure after another that more study of the usual amounts of lime used seems to be necessary. Practically one-half of the curves and tables referring to compressive strength display points and figures higher than the corresponding plain specimens. These are mostly within the maximum percentages used in practice as follows:

Concrete	Hydrated Lime Per Sack Cement	Proportion By Volume
1:3 :6	12 lb.	30 per cent
1:2½:5	10 lb.	25 per cent
1:2 :4	8 lb.	20 per cent
1:1½:3	5 lb.	12½ per cent

(For waterproofing purposes, 15, 12, 10, and 7 pounds respectively.)

Conclusion 2—"In usual concrete mixtures, each 1 per cent of hydrated lime (in terms of the volume of cement) reduced the compressive strength 0.5 per cent."

Mixtures 1:1½:3 and 1:2:4 are the only ones considered here as usual mixtures, and 1:2½:5 is completely ignored although an enormous yardage of it is placed every year. Readers who examine the figures and tables will see for themselves that there is a region wherein lime increases the strength of concrete and a very much larger one where the laboratory losses in strength are more than overcome by the advantages. The qualities attributed to lime in concrete which account for its rapid progress of late years are not increased strength as hinted at by the author but prevention of segregation, easier flow in chutes and around reinforcement, reduction of honey-combing, smoother surfaces and watertightness. Throughout the paper it is assumed that immediately we begin adding lime we begin reducing the strength, in other words, "the relation is a straight line." The plotted points and figures, however, do not sustain this claim, as can be clearly seen when the curves are not drawn "by eye" as in the paper, but by some mathematical method. For instance, in Fig. 2 only two exceptions and eleven cases of increased strength within the limits; in Table VII, of 18 groups of tests only three failed to show increases of strength with lime; in Fig. 1 three-fourths of the curves show no considerable decrease within the limits; and particularly the summary in Fig. 1 in which all of the so-called straight-line curves are below the 5 and 10 per cent points and where within the usual limits no case of decreased strength is shown.

Conclusion 4—"The addition of 1 per cent of the following powdered admixtures in terms of the volume of cement reduced the strength of 1:4 concrete at 28 days by the following percentages: hydrated lime . . . 0.56 . . ."

But 1 per cent of lime was not added at any point in the tests, and this is one of the many places where mistaken impressions are conveyed. Furthermore, all specimens have been averaged together by the straight-line method referred to above, which conceals the effect of small quantities of lime. It is a coincidence that 28 days is the age which makes the worst show for lime, and it is unfortunate also that 1:4 concrete is given so much prominence when only five pounds of hydrate per bag of cement is used in practice. Table XV shows very clearly that further study of small amounts of admixture is necessary. Here 1 and 2 per cent of mica, pitch, gypsum and ironite are added to the concrete and substantial increases in strength are shown, even though larger amounts do decrease the strength.

Conclusion 6—"Rich concrete mixes showed a greater loss in strength due to powdered admixtures than the leaner ones. In lean mixes (1:9 to 1:6) and those with aggregates graded too coarse for the quantity of cement used, the strength was little affected or was slightly increased by admixtures up to 50 per cent."

Under lean mixes, 1:2½:5 is included, and once more attention is called to the large yardage placed every year, in which even with large amounts of lime it is admitted that strength is increased.

Conclusion 7—"The wetter mixes showed a greater loss in strength than the dry, due to the addition of hydrated lime." Water is usually added in these wet batches for the sake of improved plasticity. Table XVI shows very decided improvement in the plasticity when lime is added, and indicates that it is unnecessary to use so much water in the lime batches in order to secure equal plasticity. This being the case, it is only fair to credit lime with a portion of the increased strength of the drier batches. Fig. 7, for instance, shows that 50 per cent of lime increases the strength up to 75 per cent, if no water is added, and this increase should be divided between the effect of the lime and the effect of the dryness.

Conclusion 10—"Hydrated lime and other powdered admixtures used in these tests slightly increased the workability of the leaner mixes (1:9 and 1:6) as measured by the slump test. Ordinary mixes (1:5 and 1:4) were little affected; richer mixes (1:3 and 1:2) were made less plastic."

It is easy to find fault with the slump test; for instance, as the very first value under normal consistency where ½ to 1 in. slump is expected, we find 6.1 in.; but with all of its faults, the slump test is the best one we have for measuring plasticity, and some judgment can be formed from these results.

The effect of lime may best be realized by comparing the average slump in each column with the corresponding slump without lime. In 36 of these averages (including all mixtures and all percentages of lime), only 11 are less than the straight cement specimens. The increases with lime are 1:6, 31 per cent; 1:5, 112 per cent; 1:4, 37 per cent; 1:3, 19 per cent; 1:2, 12 per cent. This states that "for the richer mixes the slump was decreased," but it is seen in 1:2 concrete 5 per cent of lime increased the strength 26 per cent, and 10 per cent of lime, 34 per cent, averaging all consistencies. The four richer mixes average a steady gain up to 33 per cent.

Conclusion 11—"The wear of concrete was not sensibly increased by hydrated lime or other admixtures up to 20 per cent of the volume of cement."

Table XI cites ten cases of which seven average 8 per cent less wear when 10 per cent of lime is added, and the eighth case wears better with 33 per cent of lime than without. The average of all specimens containing 10 per cent (which is about the maximum amount used in practice)

reveals that there was 2.7 per cent less wear. In Tables XX and XXI, four-fifths of the cases where 5 per cent of lime was added show less wear than the average of all specimens up to the maximum of lime used in practice.

Conclusion 12—"The bond resistance was affected in the same manner as the strength by the presence of hydrated lime."

Four ages are studied here, but as only two of them show decreased strength, one can hardly draw any conclusions. In this study, lime was substituted for rather than added to the cement, which practically invalidates the figures.

Conclusion 13—"Hydrated lime had little effect on the absorption of dry concrete, increased the evaporation of water from wet concrete and produced no beneficial effect on the strength of concrete stored in air."

These curves are so close together that it is hard to see how one can conclude that evaporation was increased.

It is felt that these figures show that lime in concrete in the amounts usually added, does not reduce strength, but aids considerably in improving the plasticity, resistance to wear, volume, and freedom from voids. Lime is not hydraulic and damp sand storage is not a favorable condition for it, but 88 per cent of the specimens were so stored. Under conditions more like actual practice, the lime specimens would undoubtedly have made even a stronger showing. As a whole, however, the work was well planned. A wider scope than ever before was attempted with more refined methods and more thought to eliminate errors. There are many erratic figures, but the series as a whole compares well in this respect. Suitable emphasis in the results has not been given to the vitally significant matter of determining how much lime can be added before beginning to reduce strength.

Washington, D. C. L. H. HART,
Nov. 23, 1920. National Lime Association.

[The above letter was submitted to Prof. Abrams, whose reply to Mr. Hart follows.— EDITOR.]

Sir—The writer is glad to take advantage of this opportunity to reply to the criticisms of our report on "Effect of Hydrated Lime and Other Powdered Admixtures in Concrete." It is unfortunate that the text of our report is not available; however, it will be published at an early date in the 1920 *Proceedings* of the American Society for Testing Materials.

It was a surprise to the writer that Mr. Hart comments somewhat adversely on the wide range of our tests. Many years' experience in testing concrete has shown that it is necessary to cover a wide range in order to determine the underlying principles. A large portion of the concrete tests reported in literature are almost worthless because they do not cover a sufficient range to give conclusive values. Instead of considering the wide range of the tests a weakness, we believe that it is just that feature to which the report owes its principal value. If the tests had been restricted to a narrow range of hydrated lime percentage, consistency, or cement content, we could not have discovered underlying relations. A great many engineers have been seriously misled by attempting to draw conclusions from narrow ranges of concrete tests.

There is no reason why undue weight should be given to the higher percentages of hydrated lime, if one is not interested in those values. The data are given, but attention can be concentrated on the smaller percentages if desirable. Whether or not the 50 per cent values are considered has little or no influence on the conclusions.

Re Conclusion 1—We were primarily interested in the *general* effect of inert powdered admixtures in concrete. Many powdered admixtures besides hydrated lime are of interest to concrete engineers; 17 other materials were used in our tests. The conclusions should be interpreted on this broad basis rather than with hydrated lime only in view. The tests show that certain types of admixture (pulverized granulated blast furnace slag, for example) *are beneficial to concrete strength*, possess all the advantages of hydrated lime and probably can be used at a lower cost.

Mr. Hart makes two errors in stating that "all the specimens have been averaged together whether they contain small amounts of lime or 50 per cent." (1) The values were *not averaged*, but the effect was determined from the slope of the curve plotted as described below, and fully explained in the original report. There is no reason for anyone falling into an error on this point. It conveys an entirely erroneous impression to say the values were averaged. (2) This conclusion was not based on *all specimens*, as the reader who had the original report before him would readily discover. Conclusion 5, which Mr. Hart omits, stated that "Pulverized slag up to 50 per cent of volume of cement gave a slight increase in strength of concrete . . ." This was one of a number of "exceptions noted below"; other exceptions were covered in Conclusion 6 which Mr. Hart quotes.

The expression "relation is a straight-line" which Mr. Hart places in quotation at two points, does not appear in our report. It is not good English and, as stated, does not indicate what we considered to be the facts. The statement (on page 17) was "It will be noted that in these figures the relation between the strength and the volume of hydrated lime used is *essentially* a linear one."

The effect of hydrated lime was studied by plotting the strengths against the percentages of hydrated lime and drawing a smooth curve through these points. In general, curves drawn in this way closely approximate straight lines. The average slope of these lines was taken as a measure of the effect of powdered admixtures on the strength of concrete. The fact that some of the curves and tables contained values with small percentages of hydrated lime which are higher than those without hydrated lime, has no significance, unless we inquire into the cause of the effect found in each instance.

It is clearly stated in our report that there are regions where hydrated lime increases or does not materially reduce the strength of concrete. These cases may in general be classified under: lean mixtures; fine aggregates; and accidental variations in the values which do not affect the general trend of the results. The effect of hydrated lime under the first two headings is fully covered by the tests and the discussion in our report. Accidental variations in tests are discussed below under Conclusion 4.

Mr. Hart objects to our using percentages of hydrated lime higher than those recommended for use in concrete. He does not state on what information those recommendations are based. He also criticises us for not investigating the effect of hydrated lime below 5 per cent; yet the smallest percentage recommended is 12½ per cent (by volume).

Re Conclusion 2—It should be stated that we are dealing with facts and not fancies. There has been ample opportunity for presenting evidence to show that hydrated lime prevents segregation, produces easier flow in chutes, etc., as claimed by Mr. Hart. The only tests with which we are familiar that were carried out specifically for the purpose of studying these points do not verify these claims.

The "by eye" method of drawing curves through plotted points is universally used by engineers; it is quite satisfactory and surprisingly accurate. The nature of the mathematical methods suggested is not divulged. It was not considered necessary to go into an elementary discussion of curve-tracing. The cause for minor discrepancies in concrete tests should be apparent to any engineer conversant with this subject.

It is not clear why Mr. Hart has placed particular emphasis on Fig. 2, in which a number of the curves were derived from tests made on lean mixtures which, as pointed out in our report, show an increase in strength with hydrated lime. We are at a loss to understand how anyone can interpret Fig. 1 as showing an increase in strength of concrete due to the presence of hydrated lime.

Re Conclusion 4—The absurdity of studying the effect of hydrated lime by adding 1 per cent of this material to concrete must be apparent to anyone experienced in concrete tests. The absurdity should be all the more apparent to one who has our report before him, since it is stated in a number of places that 1 per cent by volume of hydrated lime reduced the strength of ordinary concrete mixtures about 0.5 per cent. The most careful concrete tests will

show variations of several per cent, unless a large number of tests are made in establishing each value.

Mr. Hart has overlooked the fact that we are stating a *rate*. It is not necessary that our observations be restricted to 1 second in determining that a pulley is running 2.1 revolutions per second. It is not necessary for a machine to run for an hour to establish the fact that it can be run at 30 miles per hour.

Mr. Hart has pointed out that hydrated lime makes its poorest showing under the conditions in which concrete is usually used and tested, that is (a) aggregate graded 1½ in.; (b) consistency 1.10, which represents the best consistency for road construction and other high-grade work; (c) age 28 days. All designs are based on the 28-day strength of concrete. Most concrete engineers are coming to a saner use of mixing water. It does not seem practicable to modify the accepted sizes of the aggregate for the benefit of hydrated lime.

Re Conclusion 7—The comments are not borne out by the tests. In order that concrete containing hydrated lime may be plastic, sufficient water must be added to produce a plasticity in the lime which approximates that of the concrete. The statement "that it is unnecessary to use so much water in the lime batches in order to secure equal plasticity" does not change the observed facts.

Mr. Hart has misinterpreted Fig. 7, in spite of the explanatory notes which accompany that figure and in spite of the fact that this error has already been pointed out on a number of occasions. It is stated in our report that this table does not show directly the effect of hydrated lime on the strength of concrete. We went so far as to give an example illustrating this very point, so that the most careless reader has no excuse for misinterpreting the diagram. This diagram shows the fundamental relation between the strength of concrete and the water-ratio. While it is true that for the *same water-ratio* the strength of concrete with 50 per cent of hydrated lime is higher than that without hydrated lime, we must not lose sight of the fact that the water-ratio must be *increased* when hydrated lime is used. If the *same quantity* of water were used (the same water-ratio) the concrete containing hydrated lime will be less plastic; allowance must be made for this condition by adding water, which in turn reduces the concrete strength.

By identifying some of the points on the two curves in Fig. 7, the absurdity of his interpretation would have become apparent. Consider, for example, the 1:5 tests (identified by four solid circles), which in the diagram without hydrated lime gave a strength of about 2,600 lb. per sq.in. with a water-ratio of 0.87. In the diagram with hydrated lime these points will be found at a strength of about 2,100 lb. per sq.in., with a water-ratio of 1.10. In other words, the strength is reduced 500 lb. per sq.in. due to the presence of the additional water and hydrated lime. For richer mixes the difference in strength will be much greater for the same difference in water-ratio.

Re Conclusion 10—We have not claimed that our method of measuring the consistency or plasticity of concrete is perfect; in fact it is quite apparent that this is not the case. We are still searching for a better method. Our conclusions are based on a careful study of several thousand determinations by the slump test, only part of which are given in our report. It was pointed out that the slump of leaner mixtures was increased with the addition of hydrated lime (accompanied, of course, by the addition of water).

Mr. Hart's method of calculating the percentages in the discussion of the slump test is erroneous. By this method if a cylinder slumped 7 in. and we get "an increase of 112 per cent we would then calculate a slump of 14.8 in. which is absurd, in view of the fact that a 12-in. cylinder was used.

Re Conclusion 11—Our conclusion with reference to the effect of powdered admixtures on the wear of concrete was based on all wear tests made in this investigation, none of which have been omitted from the report. If we are permitted to select certain data and ignore others almost anything can be proven.

Re Conclusion 12—With reference to the substitution of hydrated lime for cement, it may be stated that some of these tests were made over three years ago, when it was common for the advocates of hydrated lime to recommend the substitution of lime for cement. We recognized that this was a poor practice and it was not followed in later tests.

DUFF A. ABRAMS,
Professor in Charge, Structural Materials Research Laboratory,
Chicago, Dec. 11. Lewis Institute.

Engineers Urged to Join Scientific Bodies

Sir—As you doubtless know, the scientific societies are passing through difficult financial conditions due to the high cost of printing. Their only salvation, outside of increasing the dues unreasonably, is to increase their membership, and I am taking this opportunity to call the attention of the engineering profession to the desirability of becoming members of the American Mathematical Society, the Mathematical Association of America, and the Association for the Advancement of Science.

In joining these societies the engineers will not alone furnish the much needed financial aid in promoting and keeping alive the necessary and important work that these societies are performing, but will also derive much benefit to themselves from contact with the pure science societies.

It must be borne in mind that, after all, the proper carrying on of research is practically impossible without a thorough co-operation of pure scientific bodies, and as these societies eagerly look forward to analyzing and discussing the problems of the engineering profession, there is to my mind no doubt that much mutual benefit must result from an infiltration of the engineering profession in the mathematical and scientific societies.

A perusal of the publications of the three societies mentioned above will show that they contain much of interest to engineers. The editors will gladly open their columns to the presentation before scientists of important engineering problems.

I sincerely hope that this appeal will meet with immediate response, and with the aid of engineers the societies will be carried through the present financial storms.

G. PAASWELL,
New York City, Dec. 23. Consulting Engineer.

Automatic Recorder for Stream Discharge

Sir—In your issue of Dec. 9, 1920, p. 1124, appears a description of the Moore attachment as used in an "Automatic Recording Apparatus for Stream Discharge."

This invention consists of a cam to actuate the recording pencil, which draws a curve whose ordinate is directly proportional to the discharge of the stream and not to the altitude of the float. The idea of this invention occurred to the writer of this letter more than three years ago and he published an account of it, with applications to the stream discharge over both triangular and rectangular weirs (so far as the mathematical work was concerned) in an article which appeared in *The Cornell Civil Engineer* for November, 1917.

The writer has never patented his invention and the two-year limit having expired he supposes that it is now public property—though for aught he knows Mr. Moore may have brought out the idea prior to November, 1917, and may have patented it. IRVING P. CHURCH.

Cornell University, Ithaca, N. Y., Dec. 17.

Piles From Blight-Killed Chestnut Trees

Sir—The question has recently been brought to the writer's attention whether it is safe to use chestnut piles which have been cut from chestnut trees in Connecticut. Inasmuch as the chestnut trees in this locality have been killed off by a blight within the past few years, I question the advisability of using this wood for piles. If any of your readers have records of tests on the use of such piles, the writer would appreciate receiving information regarding it.

Bridgeport, Conn., Dec. 13. EDWARD A. LAMBERT,
Fletcher-Thompson, Inc., Engineers.

In Behalf of the Butte Civil Engineers

Sir—I wish to take exception to the article on Butte appearing in *Engineering News-Record*, Nov. 25, p. 1032. It is certainly ill advised and incorrect.

The Anaconda Copper Mining Co. is much the largest operator in this district. This company maintains a large staff of able engineers in Butte composed of mining, civil, electrical and mechanical engineers and geologists. The slur on civil engineers in the article referred to will appear most absurd if you read the articles on mine surveying which appear from time to time in the paper published by the company. The cross-cuts and tunnels in the Butte mines, if placed end to end, would reach from New York to London, and the underground working in the Butte district are probably as intricate as those of any mining district in the world.

At Anaconda the engineering staff is very large and comprises metallurgical, mechanical, civil (including hydraulic and structural) and electrical engineers. This force ranges between 120 and 300 men.

I take especial exception to the paragraph next to the bottom of the first column of your article. It reads as follows: "There are no civil engineers to speak of at Butte. Outside of the water company and the Montana Power Co. there is no civil engineering to be done. What civil engineers there are are masquerading as mining or metallurgical men and from the looks of the main footbridge leading to the big smelter at Anaconda—a nice wood truss with no sign of post or diagonal, a perfect tribute to the efficiency of the arch, there are few of the metallurgical men with structural training." The bridge mentioned in this paragraph is a small wooden footbridge spanning a narrow waterway and was so insignificant that it did not receive the dignity of a design from the drafting room, but was built in a day or two by carpenters.

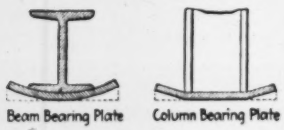
The article implies that the pipe line for the Butte Water Co. is the only large engineering undertaking in this vicinity. This is certainly a notable event in engineering. At the same time the Anaconda company has, each year for the past six years, spent as much money on new work as this pipe line cost and several of the enterprises have been new and unique in the engineering world. W. C. CAPRON,
Mechanical Superintendent Anaconda Copper Mining Co.
Anaconda, Mont., Dec. 17, 1920.

[There was no intention of slighting the work of the Anaconda Copper Mining Co. in the article referred to; in fact there is a tribute to the engineers of that and other of the mining companies in the Butte district. Their activities, however, are more in the field of the mining engineer. It is notoriously difficult to distinguish between the different kinds of engineering. Mr. Capron's letter only confirms this.—EDITOR.]

Different Formulas for Beam and Column Bearing Plates

Sir—Referring to R. W. Bowman's letter on bearing-plate formulas, p. 1105 of the Dec. 2 issue, and your editorial comment thereon, the following points relative to the application of the formulas occur to the writer:

For plates under I-beams the distribution of pressure over the bearing area of the beam flange is approximately uniform, due to more or less "flexibility" of the flange. In this case the Carnegie formula applies. This is especially true of girder beams having wide and thin flanges. Its use is on the side of safety.



FLEXURE OF BEARING PLATES

For base plates under columns, on account of the "inflexibility" of the column shaft, the load is not uniformly distributed and the Bethlehem formula properly applies. Use of a thicker plate to care for bending moment would seem to be unnecessary; however, where there is a possibility of corrosion, as is often the case, the thickness should be made greater than theory requires. WALTER J. FUSTON,
Dallas, Tex. Fuston & Van Valkenburgh,

Hooped Columns and Construction Joints in the Galveston Fire

Sir—In your issue of Dec. 2, p. 1101, Edward Godfrey has evidenced much interest in the results of the fires in the warehouse at Galveston, Tex. Mr. Godfrey states his opinion that "it is inconceivable that anything approaching this destruction could have occurred if the columns had been reinforced with close-spaced hooping." After closely examining the original photographs, three of which were not published by you, the surfaces of columns in the lower story which spalled off reveal a comparatively close-spaced hooping, approximately 3 in. on centers, and the hooping of columns supporting the roof about 6 in. on centers. The columns of the lower story show the same tendency, and actual failure in some cases, as did the columns with spirals about 6 in. on centers. If the upper story columns failed first it is natural to believe that the impact from the dead weight of the roof slab would cause an unfavorable condition of loading on the lower story columns; otherwise, if the design of all columns was uniformly proportioned with relation to unit stresses and the loads imposed, it appears from the results that in resistance to fire the spirals spaced 6 in. on centers compare favorably with those spaced 3 in. on centers.

In the absence of tangible evidence the writer would concur with Mr. Godfrey's theory, but the facts in this instance do not substantiate his conclusion. In all cases where columns remained, the spalling did not extend farther than the hooping which was left exposed. This condition of spalled-off column surfaces also prevailed in several cases in the compartment which did not fail.

Mr. Godfrey appears rather lenient in his conclusion regarding the effect of fire on construction joints. The photograph reproduced on page 983 of your issue of Nov. 18 unfortunately does not show the detail displayed by the original photograph. In the compartment that survived the fire the surface of floor slab revealed no indication of irregularity except at construction joints, although the distance between these joints and the exterior walls or expansion joint is considerable. The construction joints at the center panels offered the only opportunity for the excessive heat to attack the slab rods along the plane of maximum positive moment and hence produce elongation of these rods and subsequent distortion due to heat and stress from dead and live loads. This experience indicates the usual construction joint to be the most susceptible source of weakness in a reinforced-concrete building.

As Edgar A. Cross states in your issue of Dec. 2, p. 1102, the value of tension rods when subjected to heat even as low as 250 deg. C., or 482 deg. F., is greatly lessened. The expansive force due to heat is naturally cumulative, but the spandrel walls and expansion joints, being the points of least resistance, would hardly occasion the buckling of slabs if the present form of construction joints did not offer a direct medium for weakness and failure in the event of fire.

St. Louis, Dec. 17. W. J. KNIGHT.

City Must Pay Engineer's Fee for Services

The Superior Court of the Province of Quebec has ruled that the city of St. John, P. Q., must pay Royal LeSage, consulting engineer, Montreal, for plans, specifications and estimates prepared by Mr. LeSage for sewers for the city named. The city abandoned the project after having authorized the work and a bond to the amount of $50,000. Mr. LeSage presented a bill for $2,500 and the city denied liability, according to *The Canadian Engineer*, but offered $500 in settlement. It was shown by Mr. LeSage that his traveling expenses and other disbursements amounted to $725. The court decided that Mr. LeSage was entitled to 3 per cent for the preparation of plans and to 2 per cent for having been deprived of the supervision of the construction work. It was also decided by the court that the engineer was entitled to costs.

NEWS OF THE WEEK

New York, December 30, 1920

Erect Large Alaskan Bridge in Winter

Span of 504 Feet Under Way—To Erect Steel Arch Next Summer by Hell Gate Arch Method

The railroad being constructed by the Alaskan Engineering Commission has reached the Susitna River crossing, 260 miles from Seward, and on Dec. 1 more than 50 per cent of the steel in the bridge at that point had been put in place. This bridge is being built during the winter largely because piles could be driven only a few feet at the site and it was feared that high water in the summer would menace falsework built on piling of that sort. The structure as a whole consists of 392 ft. of trestle, two 70-ft. timber pony trusses, two 121-ft. Howe timber trusses and a 504-ft. steel span. The latter is a Baltimore truss, designed for a loading of two E50 locomotives followed by a uniform load of 4,000 lb. per foot. It has a center height of 76.75 ft. and a total weight of 1,650 tons.

Contract for the structure was awarded early in February, 1920. The designs were completed and spans assembled and shipped by July. Modjeski & Angier, as consulting engineers, approved detailed designs of the bridge prepared by the American Bridge Co., which, in turn, were based on the general plans of the Alaskan Engineering Commission. The bridge work and all other construction on the Alaskan railroad is under the supervision of Col. F. H. Mears, chairman Alaskan Engineering Commission.

The completion of the Susitna bridge this winter will make it possible to carry on work on a large two-hinged arch across Hurricane Gulch, 20 miles farther on, during the open season next year. The arch span in this structure will be 384 ft. long. At its center the rails will be 330 ft. above the bottom of the gorge. The plan of erection decided upon calls for the use of backstay anchorages, similar to those used in erecting the Hell Gate arch in New York. This bridge is being designed for E60 loading. With the steel approach spans, which total 530 ft. in length, t will require 1,300 tons of steel.

Saskatchewan Licensing Bill Fails of Passage

The bill for the incorporation of the Association of Professional Engineers of the Province of Saskatchewan, Canada, failed of passage by the Legislature when it came before that body this month.

Engineering Council Holds Final Meeting

The final meeting of engineering council held in Washington, D. C., Dec. 16, was almost entirely devoted to the closing of council's affairs. Unfinished business and uncompleted projects were transmitted to the United Engineering Society with the suggestion that they be referred to the new American Engineering Council with favorable recommendation. The principle action of a continuing nature taken by council was the adoption of the resolution to the effect that the present financial stringency and the prospect that federal revenues during the next year will not equal the government expenses, make it a matter of good citizenship for every considerate person to avoid advocating expansion of government activities; that in consequence of this belief, Engineering Council would endeavor to set the example by withdrawing its previously enlisted support of efforts to secure increased appropriations for certain government engineering projects.

To Give Up Boston Garbage and Refuse Disposal Contract

The Boston Development & Sanitary Co., which has a ten-year contract for the disposal of the garbage, ashes and rubbish of Boston, expiring July 1, 1922, has notified the city that it must discontinue its services on Dec. 31, 1920, on account of the losses that it is sustaining. These losses are attributed to the increase since 1912 in the cost of labor from 17½ to 60c. an hour and of coal from $3.80 to $14 a ton; the decrease in the price of grease from about 5c. to a quotation of 3c. a pound but with no market; and to the failure of the city to enforce the contract provisions for the separation of garbage and ashes. Had this separation been effected, the company states it could have continued to operate its contract without loss. A few months ago the company offered to pay the city the amount of its surety bond, $100,000, if the city would cancel the contract. Since then it has offered to continue the disposal work if the city would pay operating costs, without profit to the company or executive salaries. These offers the company states the city has virtually rejected. It is supposed that the city will begin operating the plant on Jan. 1 and take action against the company for non-fulfillment of its contract. The contract price for 1920 is $152,000; for 1921, $156,000; and for the half year ending June 30, 1922, $80,000.

Engineers on General Staff Eligible List

Twenty-one Regulars and Nineteen Ex-Service Men Included by Pershing Board in Roster of 607 Names

Engineers to the number of 40, of whom 21 are regulars and 19 reserve officers, members of the National Guard, or civilians formerly in the military service, are included in the General Staff eligible list of 607 names made public last week by the War Department as General Order 74. The list is published in compliance with Section 5 of the National Defense Act, approved by Congress June 4, 1920, which requires a board consisting of the general of the army, the commandant of the General Staff College, the commandant of the General Service Schools and two other general officers of the line, chosen by the Secretary of War, to select those officers of the Regular Army, National Guard, Officers' Reserve Corps and others who demonstrated their fitness for General Staff duty during the World War, who are considered qualified by "education, military experience, and character," for General Staff duty. The board was headed by General Pershing. From now on, no officer can be detailed for General Staff duty unless his name appears on the eligible list, which is popularly referred to as the "Blue Book" of the Army.

Among the Engineer regulars on the list which follows are Brig.-Gen. W. D. Connor, who served in France as commander of the Port of Bordeaux, chief of staff for Major General Harbord, commanding general, S. O. S., later succeeding him in that post, and then being placed in command of the American Forces in France after the return of General Pershing to the United States; Col. (formerly Brig.-Gen.) Edgar Jadwin, who served in the A. E. F. as director of construction and forestry, in charge of practically all the engineering work in France outside of the zone of the armies; Col. (formerly Brig.-Gen.) Sherwood Cheney, who was chief of the Army Transport Service abroad, and Major, (formerly Col.) W. T. Hannum, who was a General Staff Officer (G.-5) specializing in the training of troops. Col. Mason M. Patrick, who was chief of the Air Service in France, with rank of major general Col. E. D. Peek, who commanded a light railway regiment abroad; Col. George R. Spalding, who was chief engineer of the First Army; Col. James A. Woodruff, who was assistant to Gen. Jadwin, director of construction and forestry, and Col. G. A. Youngberg,

who served on the G-4 Section of the General Staff at Chaumont.

Of the engineer officers assigned to duty in the United States were Brig.-Gen. Henry Jervey, assistant chief of staff and director of operations; Col. (formerly Brig.-Gen.) H. B. Ferguson, commanding port of embarkation; Col. Lytle Brown, General Staff, and others.

Of the civilians, Major Barber was among the first Engineer officers in France, having gone there as a member of the Railways Commission sent at the request of General Joffre. Brig.-Gen. R. C. Marshall, Jr., was chief of the construction Division of the Army, while Lieut.-Col. John P. Hogan served with G-2, Second Army, A. E. F. Col. John F. Sewell was Section Engineer and commanding officer of the 17th Engineers at St. Nazaire in France, while Col. Joseph Hyde Pratt commanded a divisional engineers regiment.

The following engineer officers' names are contained in the General Staff list:

Regular Officers—Brown, Lytle, Col.; Cheney, Sherwood, Col.; Connor, William D., Brig.-Gen.; Emerson, Thos. H., Major; Ferguson, Harley B., Col.; Hannum, Warren T., Major; Harts, William W., Col.; Jadwin, Edgar, Col.; Jervey, Henry, Brig.-Gen.; Kelly, William, Lieut.-Col.; Kingman, John J., Major; MacArthur, Douglas, Brig.-Gen.; Patrick, Mason M., Col.; Peek, Ernest D., Lieut.-Col.; Sherill, Clarence O., Lieut.-Col.; Spalding, George R., Lieut.-Col.; Steese, James G., Major; Ward, Ralph T., Major; Watkins, Lewis H., Major; Woodruff, James A., Lieut.-Col.; Youngberg, Gilbert A., Lieut.-Col.

Civilians—Barber, Alvin B., civilian, formerly Col.; Boesch, Clarence E., Major, R. C.; Bright, Graham B., Major, R. C.; Dasher, Charles L., civilian, formerly Major; French, Herbert W., civilian formerly Capt.; Hogan, John P., civilian, formerly Lieut.-Col.; Lightner, George C., Major, R. C.; Low, John C., civilian, formerly Lieut.-Col.; Marshall, Richard C., Jr., civilian, formerly Brig.-Gen.; Pill, Leon M., Major, R. C.; Poole, John H., Col., R. C.; Pratt, Joseph H., Col., R. C.; Roberts, Spencer, civilian, formerly Major; Sewell, John S., Col., R. C.; Shaughnessey, Edward H., Col., R. C.; Taylor, Roy, civilian, formerly Major; Whitehurst, Herbert C., Major, R. C.; Williams, Edward H., Col., R. C.; Wilson, William J., Major, R. C.; Woodruff, Edwin D., Major, R. C.

Tacoma Pier Nears Completion

The Port of Tacoma, Wash., will issue $60,000 of warrants bearing 6 per cent interest in order to complete its port project to the point where Pier 1, the open pier, can be placed in commission. The funds will be used in laying railroad tracks to the new pier, purchase of a big crane and other improvements.

Quartermaster Wants $20,700,000 for Construction

The sum of $20,700,000 is asked of Congress by the Quartermaster General, U. S. Army, to be used in the construction, during the next fiscal year, of barracks, quarters, stables, storehouses, magazines, administration buildings, sheds and shops. The appropriation for similar purposes during the current fiscal year was $8,500,000. In addition, $3,500,000 has been asked for the construction and repair of roads, walks, wharves and drainage channels and $1,509,000 for the construction and repair of hospitals.

Materials Handling Section of A. S. M. E.

With the purpose of formulating a definite program for the section, its executive committee is seeking the suggestions of the members of the section and of the society.

The scope of the work is covered by the two following questions:

(1) How the mechanical engineers can improve machinery and equipments for the handling of materials.

(2) How great the material handling costs can be reduced if the whole subject of transportation is analyzed and co-ordinated from the viewpoint of making economies over our present method.

The appointment of subcommittees is being considered along two distinct lines: (a) According to types of material handling equipment, such as conveyors, cableways, cranes, etc. (b) According to industries which have material handling problems, such as steel manufactures, storage warehouses, commodity distribution centers, construction work, automobile or tire industries, etc.

It is the intention of the section to so thoroughly discuss the controlling factors in each line by meetings held by these various subcommittees so as to develop better methods of handling materials and to standardize equipment and methods where that is desirable.

It is suggested that important research work might be undertaken to build up through the formation of specialized committees certain classes of data and of information of general interest to all members. Such classes of data pertain, for example, to the handling of materials at the terminals, the relation of costs of material handling to the general costs of factory operation, and the percentage of costs of commodities which merely represent transportation in its various phases.

A questionnaire is being sent out aimed to bring out the ways in which the material handling section can interest the members and can best serve the purpose for which the section has been organized. The office of the section is at the society headquarters, 29 West 39th St., New York City.

Hetch Hetchy Project Visited by U. S. Army Engineers

While on a western tour preparatory to making recommendations for the annual appropriations, the Board of Engineers for Rivers and Harbors, Corps of Engineers, U. S. A., made an inspection trip over the Hetch Hetchy project as guests of M. M. O'Shaughnessy, city engineer of San Francisco. Among the visiting engineers were Brig.-Gen. Harry Taylor, assistant Chief of Engineers, Cols. J. C. Sanford, Charles Keller, Wm. B. Ladue, J. C. Oakes, and Herbert Deakyne, Majors C. S. Ridley and U. S. Grant 3rd.

Railroad Regiment Authorized

Instructions have been issued by the Chief of Engineers, U. S. Army, for the organiation of the 16th Engineers, a railroad regiment. This is the first time that engineer officers and troops specializing in railroad construction will be concentrated in a single organization in peace time. Only a battalion is to be formed at present, but it will serve as a nucleus around which the organization can be expanded in case of necessity.

Urge Uniform Traffic Regulations

What started as a meeting of the executive committee of the International Traffic Officers' Association, at Cleveland, Dec. 7, developed into a National Conference on Highway Traffic Regulations which will meet in Washington Jan. 10 to reach final agreement on traffic regulations which can be presented with their endorsement to the country at large and particularly to the 42 state legislatures convening next month. A temporary organization of the National Conference on Highway Traffic Regulations was effected by the representatives of 15 national and 3 other associations who had been invited to give their ideas on the subject.

The conference of eighteen associations elected as their temporary chairman, Charles M. Talbert, director of streets and sewers of St. Louis; vice-chairman, Harry Meixell, Jr., secretary, Motor Vehicle Conference Committee; secretary-treasurer, David R. Faries representing the Automobile Club of Southern California; and assistant secretary and treasurer, Sidney J. Williams, secretary and chief engineer of the National Safety Council.

The National Conference on Highway Traffic Regulations is not a new body, but a consolidation of all existing organizations which are interested in standardizing traffic legislation and regulation. For years there has been a great duplication of efforts in the agitation for a national traffic code and there are now at least four proposed standards for such a code.

"Once a uniform traffic motor vehicle law is adopted," said Mr. Talbert "the next logical step will be standardization of traffic signs and signals and this will naturally lead to uniformity in administrative and judicial practice."

The feeling expressed at the Cleveland conference was that the standardization of vehicle laws is becoming more and more imperative. It is estimated that there are in the cities of the United States approximately one million arrests for traffic law violations each year and records at the headquarters of the National Safety Council indicate that a very large proportion of the 12,000 fatalities and hundreds of thousands of injuries caused by automobile accidents each year result from violation of traffic laws, in many instances from ignorance of such laws as are in force.

To Vote on Kittitas Irrigation Contract in Washington

Property owners under the proposed Kittitas high line irrigation project, designed to irrigate approximately 73,000 acres of land in the vicinity of Ellensburg, Wash., will shortly vote on the acceptance of a contract, approved by Secretary of the Interior Payne, providing that the Government furnish storage water necessary for the project.

Would Put Kansas Water Resources Under One Head

A State Water Congress was held Dec. 15 in Topeka, Kan., for the purpose of discussing a proposal to consolidate the administration, investigation and utilization of the water resources of the state under one head, the Division of Water Resources to be created within the Court of Industrial Relations. At present six state organizations having to do with water resources now work more or less independently. They are the Court of Industrial Relations; the Kansas Water Commission; Division of Irrigation with the Department of Agriculture; State Executive Council; State Geological Survey and State Board of Health.

The Industrial Relations Court issues permits through the Public Utilities Commission, values and controls rates and service of hydroelectric properties. The technical services would be handled by the proposed division of Water Resources. The duties of the Kansas Water Commission are to investigate and control the problems of flood prevention, drainage, domestic water supply, water power navigation and irrigation. It maintains river gaging stations and co-operates with the U. S. Geological Survey. The commission is to be abolished and its duties transferred to the proposed division. The State Irrigation Commissioner gathers irrigation statistics and operates by lease state-owned irrigation plants.

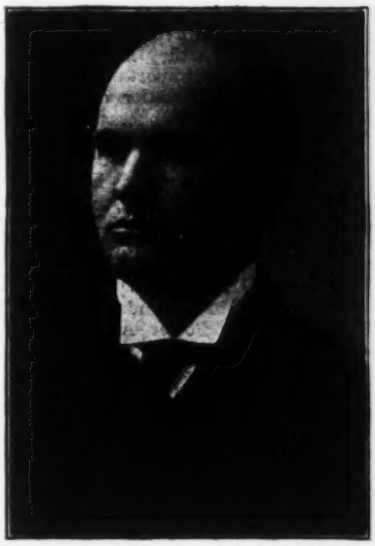
The Division of Irrigation within the State Board of Agriculture is to be abolished and its duties enlarged and transferred to the proposed division. The State Executive Council administers the "Sand Law" which relates to the sale and taking of sand, or any natural product from the river beds or state-owned property. The duties would be assumed by the proposed division. The State Geological Survey makes surveys of underground water surveys and would continue the work in co-operation with the proposed division. Likewise the State Board of Health would continue to function in handling sewage and water-works problems but would at all times co-operate with the new division.

In the discussions the few opponents to the plan argued for home rule and against corporation control which was considered easier of attainment under state commissions. More rapid and complete development of the state's water resources was considered possible under the proposed division.

A committee of five to represent all interests involved was authorized to co-operate with the governor and the Water Commission in drafting the proposed bill.

Report Withholds Recommendation on Imperial Valley Work

No specific recommendation as to the best method of proceeding with the irrigation of the Imperial Valley in California can be made until an examination of the Boulder Canyon dam site is completed. This statement is made by the Secretary of the Interior in submitting a report to Congress.



ARCHIBALD BYRON LUEDER

The report goes exhaustively into the details of the irrigable area and the location of the holdings which are to be benefited. The whole matter hinges on the possibility of constructing a large reservoir in Boulder Canyon, near the northern boundary of Arizona below the mouth of Virgin River. The report points out that a basin of large capacity could be obtained if a high dam were constructed. The investigation thus far, however, has not shown favorable foundation conditions for such a dam.

In case the Boulder Canyon reservoir does not prove to be feasible or is not constructed an alternative proposition provides for the construction of the Dewey reservoir on Grand River, together with the necessary canals and power houses. The total expense of the latter project is estimated at $67,269,000.

The report calls attention to the fact that if all possible development on the upper rivers and tributaries is carried out and storage provided only in the Dewey reservoir there will be some shortage of water on certain lands in two years out of twenty-one, judging from past records.

Archibald Byron Lueder

The roving life a construction engineer must lead cannot be better told than by recounting the chronology of the career of Archibald B. Lueder, M. Am. Soc. C. E., who was one of the best exponents of that branch of the profession, and who died Aug. 21, 1920. His work took him to practically every corner of the globe.

Mr. Lueder was born at Nanticoke, Pa., Aug. 26, 1876. He graduated from the College of Civil Engineering of Cornell University in 1899, at which time he started as timekeeper upon construction work with the Berlin Iron Bridge Co. of East Berlin, Conn. After serving for a time as foreman of erection with this company, he was sent in the spring of 1901 by the American Bridge Co. as agent and assistant engineer on the construction of twenty-eight viaducts and bridges on the Uganda Railway in British East Africa, Port of Killandini. Most of the work was done with native laborers who had had no experience in steel work.

Returns to America

Upon the completion of this work, he returned to America in the spring of 1903 and was employed by the American Bridge Co. as assistant engineer upon the construction of a number of bridges in various parts of the country.

In February, 1909, Mr. Lueder joined the Merrill Ruckgaber Co. and continued with this company until December, 1912. The work under his supervision included steel and concrete highway bridges and concrete sewer on Broad St., Stapleton, S. I.; some difficult sewer construction in Brooklyn and the construction of Evitts Creek reservoir and dam at Cumberland, Md., which included 9 mi. of wood stave pipe line.

In December, 1912, Mr. Lueder was superintendent for the Arthur McMullen, Snare & Triest Co. on the 125th St. section of the Lexington Ave. (New York) subway, and after this work was well under way he was sent by Snare & Triest to Conquimbo, Chile, in charge of the construction of ore docks for the Bethlehem Steel Co.

Returning from Chile during the spring of 1915, he was first employed by the Jarrett-Chambers Co., and later by the Phoenix Construction Co. on a power plant at Omaha, Neb.

Mr. Lueder was connected with the Electric Bond & Share Co. as manager of construction in the summer of 1916 until early in 1919, the power plant jobs of which he had charge during this time being located at Omaha, Wichita and Fort Worth.

The year 1919 was devoted to the development of oil properties near Fort Worth, Texas. Mr. Lueder was president of the Phoenix Oil Co., which he organized and managed until it was necessary for him to give up his work because of ill health which developed early in 1920.

New Railroad for Quebec

A new line of railroad 120 miles long, from Chicoutimi to St. Felicien, via the north side of Lake St. John, is provided for in a contract that has been signed between the Government of the Province of Quebec and the Quebec & Chibougamou Railway Co. The new line will run through timbered country. A large amount of the material has been contracted for and the road is to be completed in two years.

Colorado May Not Build Tunnels

A constitutional amendment authorizing Colorado to construct three tunnels through the mountains, and also authorizing the issuance of bonds for the work, was defeated at the election of Nov. 2. In view of this result a movement is under way now to bring before the legislature in January another proposal to construct the tunnels. The method by which the work can be undertaken has not yet been decided upon. Favorable consideration is being given to the plan of authorizing (by legislative enactment) the formation of tunnel districts similar to irrigation districts, any district then to vote on the question of bonding itself for the tunnel construction. This plan would make it possible to finance a tunnel on the credit of those sections of the state that would be most directly benefited, without reference to other parts of the state.

High Dam Proposed for Merced Irrigation District

A report on the requirements of the Merced irrigation district in the San Joaquin valley of California, together with recommendations for the development of the necessary storage, canal systems, drainage, etc., has just been submitted to the district by John D. Galloway, civil engineer, of San Francisco. The district, formed about a year ago, contemplates the irrigation of 200,000 acres of fertile land, of which 52,000 acres is already irrigated. Plans are under way for a bond election to secure funds with which the proposed work may be carried out.

The work recommended by the report would include a storage reservoir on the Merced River formed by a dam at Exchequer, 7 mi. above Merced Falls. At this site, the report states, there is a favorable site for a simple arch dam of perhaps 330 ft. total height, which would raise the water 300 ft. and form a reservoir 12 mi. long. This would necessitate the relocation of 20 mi. of the Yosemite Valley railroad which now runs through the reservoir site. It is proposed to locate a 20,000-kw. power plant at the foot of the dam, part of the energy from which would be used for pumping within the district. The plans contemplate the purchase of the Crocker-Huffman canal system and the addition of mains and laterals to make a total length of about 850 miles of canal.

Small Mine Shares Proposed for German Workers

A feature of the plans now under consideration in Germany for the socialization of the coal mines is the proposal to give the employed miners as well as officials the option to take shares in the mine properties and to issue for this purpose shares of a small nominal value, that is 100 marks, whereas up to now shares of the German joint stock companies had a minimum face value of 1,000 marks. The mine owners, led by Stinnes, are fighting with all their power and vast influence for the maintenance of the present proprietorship conditions and to avert the danger of the expropriation they have been willing to make an important concession by providing a limitation of the share dividends. By this concession, and by the participation of the working classes in the proprietorship and other betterments promised them, it is hoped to defeat the expropriation advocates.

Would Withdraw Park Lands From Federal Power Act

A number of amendments to the Federal Water Power Act, signed by the President last June, have been introduced in the present session of Congress, but most of them are in regard to routine matters. One of them, however, is of radical nature. This is S. 4554, introduced by Senator Jones, of Washington, which provides that no water-power development may be made under the act within the limits of a national park or national monument. The amendment reads as follows:

> That hereafter no permit, license, lease or authorization for dams, conduits, reservoirs, power houses, transmission lines or other works for storage or carriage of water, or for the development, transmission or utilization of power within the limits of any national park or national monument, shall be granted or made without specific authority of Congress, and so much of the act of Congress approved June 10, 1920, entitled "An act to create a Federal Power Commission, to provide for the improvement of navigation, the development of water power, the use of the public lands in relation thereto, and to repeal Section 18 of the river and harbor appropriation act approved Aug. 8, 1917, and for other purposes," as authorizes licensing such uses of national parks and national monuments by the Federal Power Commission is hereby repealed.

Comprehensive Road System Proposed for Saskatchewan

A plan to provide the Province of Saskatchewan with 1,067 miles of paved roads suitable for automobile traffic, by connecting up the more thickly populated centers, has been evolved by Commissioner Forath. The total estimated cost of construction of the suggested roads is $24,000,000 provided the roads are constructed as near as possible to railways and the work is so organized that it can be carried on continuously and as rapidly as possible. In the main, the commissioner's scheme is to construct a 15-ft. paved strip on all the main roads in the Province, the cost of which is to be recovered in the course of from 10 to 20 years by a system of tolls.

Indictment of Plumbers Follows Lockwood Investigation

Indictment of fifty-two members of an alleged plumbers "ring," maintained to defeat competitive bidding; the existence of an alleged combination that dominate the cast iron pipe field; and the promise of two of the three trade associations under fire from the Lockwood joint legislative committee on housing to "mend their ways" by returning to a competitive bid basis, are the high lights in the past week's work of the Lockwood committee, investigating the housing situation in New York City.

The fifty-two members of the alleged plumbing "ring" included twenty-seven corporations and twenty-five individuals, all members of the so-called Hettrick "code of practice" group. The indictment against them is a violation of the Donnelly anti-trust law. Hettrick, previously indicted, was again included among the indicted plumbers, and his $100,000 bail was continued. The plumbers appeared for arraignment, pleaded not guilty and were released under bail of $5,000 each.

Cast Iron Pipe Combine

The existence of a cast iron pipe combine, which fought legislation and plumbing innovations designed to save the building public thousands of dollars annually, was disclosed through the testimony of Charles F. Tuttle, a professional secretary, who had acted in that capacity for the Eastern Soil Pipe Association, the American Institute of Lead Manufacturers, and other trade organizations. His examination revealed the existence of an organization of ten pipe concerns, known as the Eastern Soil Pipe Association, working in conjunction with the Southern Soil Pipe Association. It was brought out in Tuttle's examination that the Central Foundry Co., the largest of the Eastern concerns, made all the discount prices for the other organizations, a practice that continued up to June 2, 1920.

The two trade associations that promised to return to a basis of competitive bidding are the Stone Mason Contractors' Association and the Composition Roofers' and Waterproof Association. The former association agreed to return at once to a basis of competitive bidding and the latter to eliminate from its practices "objectionable regulations," the chief one being a rule that prevented roofers from guaranteeing a composition roof for more than two years, when a guarantee for ten years was possible. According to the testimony of E. J. Lee, the roofers' association secretary, the Johns-Manville corporation was barred from membership because it guaranteed composition roofs for ten years. Included in the "reformation" of the stone masons' association, it was stated, would be the abrogation of an agreement that the association had with unions workers, whereby no union mason could work for a contractor not a member of the association.

Insurance Companies Lend Large Amounts to Aid Housing

According to Haley Fiske of the Metropolitan Life Insurance Co., New York City, life insurance companies of the United States, for the first ten months of 1920, loaned more than $230,000,000 on city and farm real-estate mortgages. The insurance companies have $2,082,000,000 invested in bonds and mortgages throughout the country, almost equally divided between farms and cities. Commitment for many millions more have been made, one company alone having promised approximately $50,000,000 in loans not yet closed. A great deal of this money loaned, it is pointed out, was used to aid housing propositions.

Wage Decrease Accepted by Textile Unions Under Protest

Nine of ten textile unions of New Bedford, Mass., recently voted to accept under protest, a 22½-per cent reduction in wages, rathen than strike. The tenth union voted to strike. Approximately 35,000 operators are affected.

Wage reductions among the textile workers were also noted in other sections of New England, according to press reports. At Fall River a wage reduction of 22½ per cent for the 35,000 cotton mill operatives in that city was announced Dec. 22 at a conference between the Fall River Cotton Manufacturers Association and the Textile Council. The reduction will become effective on Jan. 3 in all of the 100 mills controlled by the members of the association. Wage cuts of 22½ per cent in Holyoke and Boston were also announced. The Manufacturers Association of Boston recently announced that the decrease would occur and that the piece-work system of payment would be restored.

The Stanley Iron Works of Bridgewater, Mass., whose head offices are in New Britain, Conn., recently posted a notice of a 15 per cent reduction in wages, effective at once. The 5 per cent monthly bonus is also abolished and a drop from time and a half to straight time for all overtime is announced.

The directors of the Loyal Legion of Loggers and Lumbermen for Oregon has announced a cut in the minimum wage for legion workmen of 80c per day, making a new minimum wage of $3.60. Approximately 2,000 employees of a manufacturing establishment in Chicopee, Mass., announced a 22½-per cent reduction, beginning Jan. 10. The same reduction will be put into effect by two establishments in Sanford, Me., a week earlier, affecting 3,000 operatives. A wage reduction affecting more than 700 employees was announced recently by the Parkersburg Iron Co. of Parkersburg, W. Va. In order to save sixty of their number from being laid off, a proposal that 450 employees of the Great Northern R.R. Co. at Great Falls, Mont., each work shorter hours, has been made by the men themselves in a communication sent to the Great Northern headquarters in St. Paul. The sixty men were laid off Dec. 21. A Chicago hotel has announced a 20 per cent decrease in waiters' wages for the first of the year, other hotels contemplating the same thing.

Construction Company Makes Winter Provision for Old Employees

The Cement-Gun Construction Co., Chicago, Ill., facing inaction during the winter and unwilling to see its regular employees go jobless, has devised a plan which it recently propounded to its regular employees. The company is equipped to make concrete septic tanks during warm weather but not during winter. The plan involves fitting up the tank plant with heating apparatus for winter work, allowing regular employees to be given the chance to work at a reasonable wage, and to share in the profits resulting from the sale of the tanks if a market for those manufactured during the winter is found in the spring and summer. Acceptance of the proposition is entirely optional with the employee, and his non-acceptance does not injure his status with the construction company.

Lumber Production 60 Per Cent of Normal

According to a recent bulletin issued by the National Lumber Manufacturers Association, production of lumber is now about 60 per cent of normal. Shipments closely approach production so that the volume of stock is not substantially increasing. It is expected that further reduction in output will occur in the next few weeks through the closing of more mills in the South and West. However, the bulletin points out, the resumption of building early in 1921, it is believed, must result in an active demand on the sawmills, and operators for the most part are optimistic. The bulletin also says that hundreds of sawmills in the principal producing regions are making sales at prices at, near, or even below cost of production. The move is made in an effort to maintain organizations intact.

Original Road Tender Cut $35,000 in Readvertisement of Bids

According to information just received from the Alabama Highway Commission, a contract has been awarded to W. T. Taylor, Talladega, Ala., for grading and installing drainage structures on 18.2 miles of state highway, at a price $35,000 under the same contractor's bid submitted Nov. 10. At that time bids were advertised on the project, but, though several contractors bid, the state highway commission considered the bids excessive, readvertising on Dec. 21 with the above result.

Railroad Officials and Trainmen Discuss Labor Situation

Official representatives of the 50,000 union trainmen employed on the Pennsylvania R.R. recently consulted, at the invitation of President W. W. Atterbury, with operating officials of the Pennsylvania system upon methods of avoiding strikes and improving the general service of the company. A decision was reached by both officers and operatives to co-operate in the building up of machinery for the settlement of labor disputes over the entire system. The railroad was represented at the conference by virtually all the vice-presidents, general managers and general superintendents from all regions of the system. Approximately 300 official representatives of the union operatives, representing the four big union railroad bodies, were also present.

ENGINEERING SOCIETIES

Calendar

Annual Meetings

AMERICAN SOCIETY OF CIVIL ENGINEERS, New York City, Jan. 19-20, 1921.

ASSOCIATED GENERAL CONTRACTORS, Washington, D. C.; New Orleans, Jan. 25-27.

ENGINEERING INSTITUTE OF CANADA, Montreal; Toronto, Feb. 1-3.

The Nashville Engineering Association, at its meeting Dec. 14, elected the following officers: President, F. E. Freeland; vice-president, C. M. Darden; second vice-president, Wilbur Nelson.

The Ottawa Branch, Engineering Institute of Canada, at its meeting Jan. 6 will be addressed by J. M. R. Fairbairn, chief engineer, Canadian Pacific Ry. The members were addressed, Dec. 16, by W. H. Boyd, chief topographer, Geological Survey of Canada on topographical surveying.

The Cleveland Engineering Society, at its noonday meeting, Dec. 31, will be addressed by Lieut.-Col. P. S. Bond on "The Engineer and His Relation to National Defense."

The Engineers' Club of Philadelphia, at its Jan. 7 meeting, will discuss "The Development and Future of Handling Freight by Motor-Trucks." The subject of the Jan. 21 meeting will be "Symposium on Hydro-electric Power and Distribution."

The Engineering Society of Wisconsin will hold its annual meeting at Madison, Wis., Feb. 11-12. Secretary, Leonard S. Smith.

The Indiana Engineering Society will hold its annual meeting at Indianapolis,

Ind., on Jan. 27-28. Charles Brossman, Merchants Bank Building, is secretary.

The Technical Club of Madison, Wis., at a recent meeting passed a resolution urging upon President-elect Harding the appointment of Herbert C. Hoover as Secretary of the Interior.

The Highway Engineers' Association of Missouri will hold its annual meeting at the Planters Hotel, St. Louis, Mo., Jan. 6, 7, 8, 1921.

The Kansas Engineering Society, at its annual meeting, Dec. 16-17, elected the following officers: President, Dean P. F. Walker of the University of Kansas; vice-president, Lloyd B. Smith; secretary-treasurer, J. M. Averill.

Personal Notes

CHARLES E. SLOAN has been appointed city engineer of Manteca, Cal.

FRED H. SCHRIEBER, formerly assistant state highway engineer of South Dakota, has been appointed state highway engineer to succeed F. S. Peck, resigned.

W. G. STROMQUIST has left the U. S. Public Health Service to accept the position of sanitary engineer with the health department, Memphis, Tenn.

GEORGE G. TYRRELL, formerly with the Missouri State Highway Department, has been appointed resident engineer on the construction of federal-aid roads for the Mississippi State Highway Department.

W. H. FAIRCHILD has resigned the position of city engineer to become general manager of the Public Utilities Commission, Galt, Ont., Canada.

THOMAS N. JACOB has been appointed chief engineer of the East Side Levee and Sanitary District, East St. Louis, Ill. Elmer R. Rodenberg has been appointed resident engineer and J. E. Weinel, field engineer.

BURDETTE WOODYARD has resigned the position of highway engineer of Wood County, W. Va.

S. R. BATSON has resigned the position of highway engineer for Jefferson County, Ala.

MORRIS FORMAN, formerly draftsman and estimator with the Miami Conservancy District, Hamilton, Ohio, has accepted a position as assistant drainage engineer, Winnebago County, Iowa.

ARTHUR I. HEIM has resigned his position with the State Highway Commission, Helena, Mont., to become office engineer for the Foote Engineering Co., Meridian, Miss.

ALEXANDER A. POMPER, formerly assistant engineer and inspector on municipal improvement work for the Spanish River Pulp and Paper Mills, Espanola, Ont., Canada, and recently junior engineer, Public Service Commission of New York, has been appointed assistant highway engineer, Monroe County, Mo.

JOHN H. CATON, 3D, formerly assistant general manager of the Industrial Chemical Co., Providence, R. I., has been appointed division engineer in the Bureau of Public Works, La Vega, Dominican Republic, engaged in the construction of the new road across the republic. Before the world war he was construction engineer in the Bureau of Public Works, Manila, and during the war was captain, 33d Engineers, and road engineer for Base Section 5 of the A. E. F. in France.

RICHARD ROBERTS, for the past five years employed in an engineering and executive capacity by the Guggenheim interests, has resigned to accept the position of sales engineer with the New York office of the Wayne Oil Tank & Pump Co.

LLOYD T. EMORY, civil engineer, of Philadelphia, is in British Guiana engaged in professional work.

GUS A. BRACHER has been appointed engineer of Washington County, Tex.

J. H. HOOPER has been appointed chief engineer of the Standard Steel Construction Co., Welland, Ont., Canada.

E. J. WIDMAN, formerly superintendent for the C. R. Cummins Co., Marysville, Mich., in charge of the erection of the power plant for the Detroit Edison Co., has been promoted to engineer in charge of work in the Detroit district.

J. M. HANNAFORD, after more than 48 years' continuous service with the Northern Pacific Ry., has retired from the presidency. He will continue as a director of the company.

Obituary

JOHN W. WOLFE, division engineer, Board of Local Improvements, Chicago, died Dec. 12. He was born in Ireland in 1870 and had lived in Chicago since 1885.

H. B. KELSEY, manager, The Foundation Co., Pittsburgh, Pa., died in New York Dec. 13.

JAMES P. DORAN, for ten years connected with the engineering department of the Eastman Kodak Co., died at Rochester, N. Y., Dec. 10.

E. V. SMITH, superintendent, Wheeling (W. Va.) division, Baltimore & Ohio R.R., died Dec. 8. He was born at Meadville, Pa. For several years he was connected with the Erie R.R., then entered the service of the Baltimore & Ohio R.R.

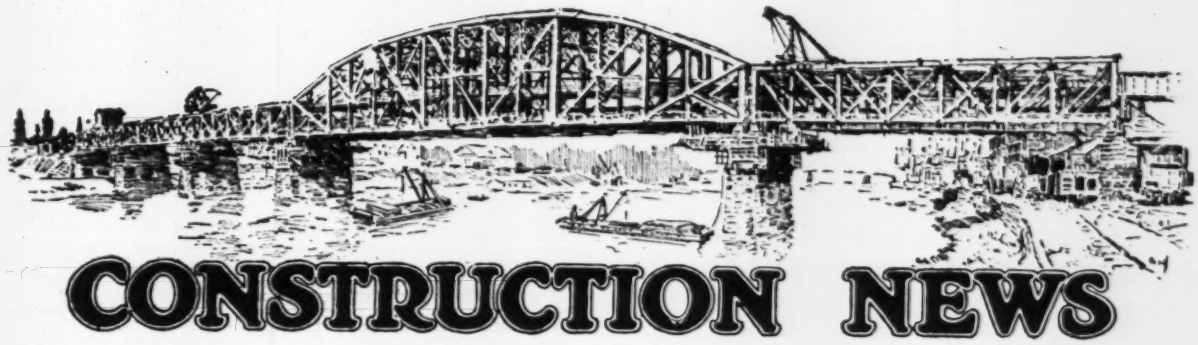
Business Notes

THE AMERICAN FOREIGN STEEL CORPORATION announces its incorporation effective Jan. 1, 1921, for the purpose of doing a foreign and domestic business in iron and steel, steel products, coal, coke, pig iron, new and relaying rails. Main offices will be in the Woolworth Building, New York; foreign offices will be in Birmingham, England, and Rome, Italy. Plants will be located at Modena, Pa., Lackawanna, N. Y., and Jersey City, N. J., which were formerly operated by the Jos. Joseph & Bros. Co. Eli Joseph, for twenty years president of this company, will be president of the new organization. The Jos. Joseph & Bros. Co. will continue as proprietors of the Railway Supply & Mfg. Co., manufacturers of cotton and wool waste, and will continue their interests in the Ohio Falls Iron Co.

THE DETROIT STEEL PRODUCTS CO. has increased its capitalization to $5,250,000, and declared a common stock dividend of 300 per cent, thus distributing a portion of the company's surplus, which has accumulated during the last ten years. The management believes the time is opportune to strike an optimistic note, and at the same time to afford the stockholders control of their share of this surplus. During the existing dull period, everything possible is being done to give employment to employees, who would otherwise be idle, in a thorough overhauling of the plant and equipment so that increased efficiency may be isured.

THE ENGINEERING BUSINESS EXCHANGE, of which Charles Whiting Baker, formerly editor of *Engineering News*, is director, announces the opening of a Pacific Coast branch with James T. Whittlesey as director and with offices in the Claus Spreckels Building, San Francisco. This will make available to the engineers and engineering industries of the coast states the same service in bringing together the buyers and sellers of engineering and technical business properties that is being rendered by the New York office. Mr. Whittlesey for a dozen years was chief engineer of the Public Service Electric Co. of New Jersey. He built a number of that company's large power stations and developed a comprehensive ten-year program for the unification of the various plants and systems in New Jersey, which has since been closely followed. Since his removal to California eight years ago, he has been engaged in general consulting practice.

THE ALPHA PORTLAND CEMENT CO., Easton, Pa., has purchased three new properties—the Burt Cement Co. plant at Bellvue, Mich., the La Salle, at La Salle, Ill., and the Ironton Cement Co., Ironton, Ohio.



UPS AND DOWNS OF THE MARKET

PIG IRON—The car shortage which for far too long has seriously handicapped all branches of industry is felt severely in the iron and steel market. Pig Iron prices remain about the same as last month.

RAILWAY MATERIALS—Rail prices remain the same as last month. Sharp drop in railway ties in San Francisco, due probably to flooding of market with lumber for which there are no cars for shipment eastward. Slight rise noted for standard spikes.

CONCRETING MATERIALS—Very few changes for sand, gravel or crushed stone. Slag prices same as last month. Decreases in prices of high-graded lime in Detroit and Baltimore and a $3.50 per ton increase in San Francisco. Cement price increased in Detroit, New Orleans and San Francisco. In St. Louis nearly all construction work is shut down on account of shortage of cement, local cement mills being under bond to deliver to the Illinois Highway Commission. Cement shortage has contributed to a general tying up of heavy building operations in the Duluth district and in the towns of the Minnesota iron ranges.

The president of a large Duluth company handling cement and other building materials stated that about one barrel of cement is being manufactured for every four barrels required, and that his company is 60 days behind on deliveries.

REINFORCING MATERIALS—Practically no change in prices of steel reinforcing, with acute shortages of all materials.

PIPE—A range is quoted for discounts on iron and steel pipe in Pittsburgh. Steel pipe has advanced seven points at warehouses in New York. Cast iron pipe up $4 in San Francisco. Clay drain tile advanced $7 per thousand lineal feet for 3-in. and $45 for 8-in. in New York. Sewer Pipe advanced in San Francisco and declined in Detroit and Baltimore.

BRICK—Common brick advanced in Chicago and San Francisco. This month for the first time quotations are given on both 3-in. and 4-in. paving blocks. Paving Brick will not be quoted on, as its use is restricted practically to repair work. The only block in the Chicago market is 3-in. by 4-in. by 8½-in. In San Francisco the only size is 3¼ by 8¼ by 4 in., with very little laid, except on hills where increased traction is desired, asphalt being used almost exclusively for road work.

STRUCTURAL MATERIAL—The Pittsburgh market is quiet with few contracts being taken. Some of the mills are casting up their orders. The Carnegie Steel Company still quotes $2.45 per hundred for beams and channels up to 15-inch while other fabricators quote as high as $3.75. Therefore we quote a range of $2.45 to $3.75. Price is $5.85 in San Francisco, an advance of 45c over the last prices quoted in this journal. Structural rivets ¾ inch and larger are $4.72 per hundred pounds. Prices advanced 25c in Chicago and in St. Louis.

STEEL SHEETS—The market remains about the same as last month with heavy demand and few deliveries. Manufacturers of steel boxes for the electrical trade are seriously affected by the shortage.

HOLLOW TILE—Conditions in New York district still unsatisfactory, with factories behind on orders. Increases in San Francisco and New Orleans.

STRUCTURAL MATERIALS—The Pittsburgh market is quiet, with plain steel easier. Several of the mills report that they are catching up on orders. The Carnegie Steel Co. still quotes $2.45 for beams and channels up to 15-in. Another fabricator quotes $2.90@$3.25, the highest being $3.75; so that our figures are $2.45@$3.75. For plates the heaviest demands are from shipbuilding interests and steel car manufacturers.

LUMBER—Douglas fir is down $5 in San Francisco—a drop of $8.50 in two months. The reason for this is that when the switchmen's strike started the mills were unable to secure cars for shipping their output to the Middle West and the East. If the mills were not to be shut down a market had to be found at once; so the Coast was flooded with lumber at a reduced price. Pine dropped in price in New York, St. Louis, Kansas City, Cincinnati and Detroit.

LABOR—On the whole, labor conditions appear to be improved over last month. There were wage increases in Cincinnati, Detroit and New Orleans.

Price advances are indicated by **heavy type**; declines by *italics*

PIG IRON—Quotations compiled by The Matthew Addy Co.:

	Current	One Year Ago
CINCINNATI		
No. 2 Southern	$45.60	$30.35
Northern Basic	42.80	27.55
Southern Ohio No. 2	46.80	28.55
NEW YORK, tidewater delivery		
2X Virginia (silicon 2.25 to 2.75)	49.65	31.90
Southern No. 2 (silicon 2.25 to 2.75)	49.70	33.95
BIRMINGHAM		
No. 2 Foundry	42.00@**44.00**	26.25
PHILADELPHIA		
Eastern Pa	**46.00@48.25***	30.65*
Virginia No. 2	45.00*	30.85*
Basic	44.50†	30.90†
Grey Forge	43.50*	29.90*
CHICAGO		
No. 2 Foundry Local	43.00@44.25	26.75
No. 2 Foundry Southern	47.00@48.70	28.00
PITTSBURGH, including freight charge from the Valley		
No. 2 Foundry Valley	45.65	28.15
Basic	44.40	27.15
Bessemer	44.90	29.35
MONTREAL		
Silicon 2.25 to 2.75%	43.25	

* F. o. b. furnace. † Delivered.

RAILWAY SUPPLIES

STEEL RAILS—The following quotations are per ton f. o. b. Pittsburgh and Chicago for carload or larger lots. For less than carload lots 5c. per 100 lb. is charged extra:

	Pittsburgh		Chicago	
	Current	One Year Ago	Current	One Year Ago
Standard bessemer rails	$45.00@$60.00	$45.00	$45.00@$55.00	$45.00
Standard openhearth rails	47.00@60.00	47.00	47.00@57.00	47.00
Light rails, 8 to 10 lb.	50.00@55.00	2.585*	2.585*@3.75	2.835*
Light rails, 12 to 14 lb.	49.00@75.00	2.54*	2.54*@3.75	2.79*
Light rails, 25 to 45 lb.	49.00@75.00	2.45*	2.45*@3.75	2.70*

* Per 100 lb.

Note.—The lower price is that of the U. S. Steel Corp. but the market is mostly speculative and higher prices prevail.

RAILWAY TIES—For fair-sized orders, the following prices per tie hold:

		7 In. x 9 In. by 8 Ft. 6 In.	6 In. x 8 In. by 8½ Ft.
Chicago	Plain	**$2.00**	**$2.25**
Chicago	Creosoted	**2.25**	**2.50**
San Francisco	Douglas Fir—Green	*1.35*	*.96*
San Francisco	Douglas Fir—Creosoted	*2.70*	*1.92*

Prices per tie at Missouri mills; St. Louis prices about 25c. higher:

Untreated A Grade White Oak 6x8x8		Untreated A Grade Red Oak 6x8x8	
No. 1	$0.70	No. 1	$0.55
No. 2	.80	No. 2	.65
No. 3	.90	No. 3	.75
No. 4	.98		
7x9x8 white oak			1.05
7x9x8 red oak (No. 4)	$0.80	No. 5	.87

Note.—Add 36c. each for treatment.

TRACK SUPPLIES—The following prices are base per 100 lb. f.o.b. Pittsburgh for carload lots, together with the warehouse prices at the places named:

	— Pittsburgh — Current	One Year Ago	Chicago	St. Louis	San Francisco
Standard spikes, $\frac{9}{16}$-in. and larger	$4.@4.25	$3.35	$3.62	$5.34	**$7.75**
Track bolts	6.00@6.50	4.35	4.62	Premium	**8.75**
Standard section angle bars	3.00@4.00	3.00	3.02	Premium	**5.30**

PIPE

STEEL AND IRON—The following discounts are to jobbers for carload lots on the Pittsburgh basing card, discounts on steel pipe, applying as from January 14, 1920, and on iron pipe from January 7, 1920:

Inches	Black	Galv.	Inches	Black	Galv.
	BUTT WELD				
¼ to 3	57 @54	44@41½	⅜ to 1½	34½@24½	18½@ 8
			2 and 2½	33½	17½
	LAP WELD				
2	50½@47	38@34½	2	28½@20½	14½@ 6½
2½ to 6	53½@50	41@37½	2½ to 6	30½@22½	17½@ 9½
7 to 12	50½@47	37@33½	7 to 12	27½@19½	14½@ 6½
13 and 14	41 @37½				
15	38 @35				
	BUTT-WELD, EXTRA STRONG, PLAIN ENDS				
¼ to 1½	55½@52	39½	⅜ to 1½	34½@24½	19½@ 9½
2 to 3	56½@53	44@40½	2 and 2½	34½@24½	19½@ 9½
	LAP WELD, EXTRA STRONG, PLAIN ENDS				
2	48½@45	37@33½	2	29½@21½	16½@ 8½
2½ to 4	51½@48	40@36½	2½ to 4	31½@23½	19½@11½
4½ to 6	50½@47	39@35½	4½ to 6	30½@22½	18½@10½
7 to 8	46½@43	33@29½	7 to 8	22½@14½	10½@ 2½
9 to 12	41½@38	28@24½	9 to 12	17½@ 9½	5½@ 5½

STEEL—From warehouses at the places named the following discounts hold for steel pipe:

	Black — New York	Chicago	St. Louis
¼ to 3 in. butt welded	**40%**	54@40%	45%
2½ to 6 in. lap welded	**35%**	50@40%	41½%
	Galvanized — New York	**Chicago**	**St. Louis**
¼ to 3 in. butt welded	**24%**	40½@30%	30½%
2½ to 6 in. lap welded	**20%**	37½%@27½	27½%

Malleable fittings, Class B and C, from New York stock sell at + 32% list prices. Cast iron, standard sizes, net.

CAST-IRON PIPE—The following are prices per net ton for carload lots:

	— New York — Current	One Month Ago	One Year Ago	Chicago	St. Louis	San Francisco
4 in.	$79.30	$75.30	$53.00	$78.80	$78.00	**$97.55**
6 in. and over	76.30	72.30	50.00	75.80	75.00	**94.55**

Gas pipe and 16-ft. lengths are $2 per ton extra.

CLAY DRAIN TILE—The following prices are per 1000 lin.ft.:

Size, In.	— New York — Current	One Year Ago	St. Louis	Chicago	San Francisco	Dallas
3	**$42.50**	$35.00	$60.00	$60.00		$33.44
4	**60.00**	51.00	60.00	80.00	$45.00	50.16
5	**85.00**	65.00		100.00	65.00	62.70
6	**110.00**	90.00	110.00	120.00	90.00	83.60
8	**175.00**	130.00	195.00	180.00	150.00	133.76

SEWER PIPE—The following prices are in cents per foot for carload lots:

Size, In.	— New York — Current Delivered	Year Ago Not Del.	St. Louis	Chicago	San Francisco	Dallas
3	$0.19	$0.081		$0.15	**$12.75**	$0.175
4	19	081		15	**17.00**	175
5	29	1215		225	**21.25**	245
6	29	1215	$0.1855	225	**24.50**	245
8	45	189	265	35	**38.25**	35
10	67	283	371	525	**51**	
12	86	365	477	625	**68**	63
15	1.30	480	715	90	**1.10**	
18	1.88	675	935	1.25	**1.425**	
20	2.25	81	1.15	1.50	**1.90**	
22	3.00	1.08		2.00		
24	8.38	1.215	1.65	2.25	**2.375**	3.10
27		2.015	2.45	3.50	**2.975**	
30		2.232	2.95	4.00	**3.40**	
33		2.79	3.70	4.75		
36		3.18	4.00	5.50		5.60
	3	5	8	12	24	36
Boston	$0.21	$0.415	$0.49	$0.94½	$3.15	$8.20
Minneapolis	.125	167	.295	495	1.87	4.37
Denver			29	50	1.75	
Seattle			3850	68		2.375
Kansas City		No prices obtainable				
Los Angeles	0975*	1525*	27	48	60*	
New Orleans	**30** per cent. off			35 per cent off		
Cincinnati	53 per cent off					38%
Atlanta			34	55	2.00	
Montreal			.58 per cent. off			
Detroit			**57** per cent. off		46%	42%
Baltimore	.18	.87	.42	.81	.2.70	.1.75

* 4-in., 6-in., 30-in. respectively.

ROAD AND PAVING MATERIALS

ROAD OILS—Following are prices per gallon in tank cars 8000 gal. minimum f.o.b. place named:

	Current	One Month Ago
New York, 45-65% asphalt (at terminal)	$0.13*	$0.13
New York, liquid asphalt (" ")	.13*	.13
New York, binder (" ")	**.14***	.13½
New York, flux (" ")	**.15***	.14
St. Louis, 40% asphalt	.10*	.10
Chicago, 40-50% asphalt	.08	.08
Chicago, 60-70% asphalt	.08½	.085
Dallas, 40-50% asphalt	.07	.07
Dallas, 60-70% asphalt	.08	.08
Dallas, 75-90% asphalt	.10	.10
San Francisco, binder, per ton	13.00	..

*Note—Quotations nominal in New York. Scarcity in road oils.

ASPHALTUM—Price per ton in packages (350-lb. bbls. or 425-lb. drums) and in bulk in carload lots:

	Package	Bulk
New York	$45.00	$40.00
Chicago	30.90	23.40
San Francisco	**19.00**	12.00
Dallas	35.00	31.00
Seattle	**25.00**	
Denver	40.00	36.00
Minneapolis	24.00	21.00
Kansas City	40.00	32.00
Atlanta	25.00	20.80
New Orleans	30.00	35.00
St. Louis	29.40	23.90
Baltimore	43.00	
Los Angeles	21.15	
Montreal	....	37.00
Detroit	49.00	42.25

PAVING STONE

New York	5-in. granite	No quotations	
Chicago	About 4x8x4 dressed	$3.25	sq.yd.
	About 4x8x4 common	2.90	sq.yd.
San Francisco	Basalt block 4x7x8	65.00	per M
Kansas City	Granite	3.65	sq.yd.
Boston	5-in. granite	110.00	per M
St. Paul	Sandstone	2.47	sq.yd.
Atlanta	Granite	2.00	sq.yd.
Detroit	Granite, 26½ blocks per sq. yd.	2.85	sq.yd.
Baltimore	Granite	2.40	sq.yd.
Montreal	Granite	5.90	sq.yd.
New Orleans	Granite	2.80	sq.yd.
Cincinnati	Granite	3.25	sq.yd.

FLAGGING

New York	Bronx	$0.24	sq.ft.
	Manhattan	.25	sq.ft.
	Queens, 5 ft.	**.26**	sq.ft.
	6x20-in. cross-walk	**95**	lin.ft.
Chicago	18 in. wide	.70	lin.ft.

CURBING—Bluestone per lineal foot, in New York, costs 70c. for 5x16 in., 80c. for 5x18 in.

WOOD BLOCK PAVING—

	Size of Block	Treatment	Per Sq.Yd.
New York	3½	16	$3.75
New York	4	16	4.10
Boston	3	16	3.00
Chicago	4	16	4.50
Chicago	3½	16	3.50
Chicago	City specifications		5.00
St. Louis	3½	16	2.90
St. Louis	4	16	3.32
Seattle	4	16	Off market
Kansas City	4	16	3.00
Minneapolis	3½	16	3.10
Atlanta	3½	16	2.30
New Orleans	4	16	3.63
Dallas	4	18	3.57
Baltimore	3½	16	3.60
Montreal	4	16	4.60
Detroit	3½	16	3.40

CONSTRUCTION MATERIALS

SAND AND GRAVEL—Price for cargo or carload lots is as follows, per cu.yd.:

	— Gravel — 1½ In. — Current	One Yr. Ago	¾ In. — Current	One Yr. Ago	— Sand — Current	One Yr. Ago
New York	$3.00	$2.00	$3.00	$2.00	$1.50	$1.25
Denver	1.80	1.60	1.80	1.60	1.40	1.25
Chicago	2.15	1.35	2.15	1.35	2.15	1.35
Kansas City	3.25	2.50	3.75	3.00	1.25†	1.00
St. Louis	1.50	1.78	1.55	1.82	1.55*	1.68
Seattle, per ton	1.25	1.25	1.25	1.25	1.25	1.25
Dallas	2.50	2.00	2.50	2.00	2.00	1.50
Minneapolis	1.50	1.25	1.35	1.35	.75	.60
Cincinnati	....	....	1.50	....	1.45	1.35‡
San Francisco	1.50	1.15	1.50	1.15	1.50	1.00
Boston	3.00	1.60‡	**3.00**	1.65‡	3.00	
New Orleans	3.00	2.40		2.40	1.40	1.20
Los Angeles	1.25	1.02	1.25	1.02	1.15	.70
Atlanta, per ton	2.25	2.00	2.25		1.15	1.10
Detroit	2.50	1.90	**2.50**	1.90	**2.50**	1.80
Baltimore	1.40‡	....	1.60‡	1.60	.80	....
Montreal, per ton	1.20	1.20	....	....	1.40	1.10

* Fine white sand, Pacific and Ottawa, per ton $6.
† Kaw River sand is $1.75 per yd. ‡ per ton.

CRUSHED STONE—Price for cargo or carload lots is as follows, per cu.yd.:

	1½ In. Current	1½ In. One Year Ago	¾ In. Current	¾ In. One Year Ago
New York	$1.90@2.00	$1.65@1.75	$2.15	$1.75@1.85
Chicago	2.15	1.30	2.15	1.30
St. Louis	1.90	1.35	1.90	1.35
Dallas	3.50	2.25	3.50	2.25
San Francisco	1.50	1.15	1.50	1.15
Boston	3.00*(del)	3.00	3.00 (del)	3.00
Minneapolis	1.50†	1.15	1.60	1.25
Denver	3.75	....	3.75	1.60
Kansas City	2.35	1.90	2.35	2.00
Seattle (Del.)	3.50	1.50	3.50	1.50
Cincinnati	....	....	1.65	....
Atlanta	3.10*	2.35	....	2.60
Los Angeles	1.60*	1.12	1.70*	1.12
Detroit	2.50	1.20	2.50	1.20
Baltimore	1.60*	...	2.00*	
Montreal	1.75*	1.90	2.00*	2.15

* Per ton. † Limestone; traprock, $1.60 and $1.80 per ton for 1½ and ¾-in.

CRUSHED SLAG—Price of crushed slag per net ton in carload lots:

	1½-In.	¾-In.	Roofing	Sand
Lebanon or Bethlehem, Pa	$1.00	$1.00	$2.50	$0.90
Easton, Pa	1.20	1.20	3.00	1.10
Buffalo, N. Y	1.25	1.00	2.00	1.00
East Canaan, Conn	1.25	1.35	3.50	1.10
Birmingham, Ala	1.25	1.25	2.05	1.00
Toledo, Ohio	1.50	1.50		...

LIME—Warehouse prices:

	Hydrated per Ton Finished	Hydrated per Ton Common	Lump per 200-Lb. Barrel Finished	Lump per 200-Lb. Barrel Common
New York	$19.50	$18.50	$3.50*-at plant-	$3.30*
Kansas City	27.20	26.20	2.50	2.40
Chicago	..	..		1.75
St. Louis	25.00	21.00		2.25
Boston	26.25	24.25	3.40†	3.25†
Dallas	..	25.00		2.50†
Cincinnati	17.20	16.20		13.20‡
San Francisco	28.50	19.50	....	2.25
Minneapolis	24.00	19.00	1.80†	1.60†
Detroit	26.00	24.00	2.16†	1.80†
Seattle	30.00	.....		1.85†
Los Angeles	2.75†	2.20†	2.75†	2.00†
Baltimore	23.50	19.75		14.60‡
Montreal	25.00	25.00	15.00‡	15.00‡
Atlanta	22.50	..	....	....
New Orleans	.....	2.25 (bbl.)	.....	2.45

* 300-lb. barrels. †Per 180-lb. barrel. ‡ Per ton.

NOTE—Refund of 10c. per barrel with 25c per ton off on hydrated

NATURAL CEMENT—Price to dealers for 500 bbl. or over, f. o. b., exclusive of bags:

	Current	One Year Ago
Minneapolis (Austin)	$1.50	$1.45
Kansas City (Ft. Scott)	1.60	1.40
New Orleans	3.36	2.52
Atlanta (Magnolia)	1.90	....
Cincinnati (Louisville)	2.85	1.50
Boston (Rosedale)	2.35	....

PORTLAND CEMENT—Current prices are for barrels in carload lots, *without* bags, to contractors:

	Current Without Bags	One Month Ago Without Bags	One Year Ago Without Bags
New York (del.)	$3.80	$3.30	$2.30
Jersey City (del.)	2.97	2.47	2.27
Boston	2.60	2.60	2.42
Chicago	2.15	2.15	2.00
Pittsburgh	2.20	2.20	2.05
Cleveland	2.42	2.42	2.32
Detroit	3.00	2.28	2.08
Indianapolis	2.42	2.42	2.27
Toledo	2.28	2.28	2.12
Milwaukee	2.20	2.20	2.11
Duluth	2.20	2.20	2.10
Peoria	2.32	2.32	2.12
Cedar Rapids	2.40	2.40	2.18
Davenport	2.36	2.36	2.14
St. Louis	2.65	3.05	2.20
San Francisco	2.88	2.63	2.40
New Orleans	3.52	2.96	2.36
Minneapolis	2.22	2.22	2.20
Denver	2.82	2.82	2.67
Kansas City	2.76	2.56	2.57
Seattle	3.03	3.03	2.53
Dallas	2.15	2.15	2.03
Atlanta	2.70	2.70	2.60
Cincinnati	2.85	2.90	
Los Angeles	3.10	3.10	2.78
Baltimore (del)	3.85†	3.85	....
Montreal (including bags)	2.00	3.00†	2.50
Detroit			2.20

NOTE—Bag charge is generally 25c. each. *Delivered Manhattan, The Bronx or Brooklyn; bags 25c. each. †Including bags.

TRIANGLE MESH—Price per 100 sq.ft. in carload lots:

PLAIN 4-INCH by 4-INCH MESH

Style Number	Sectional Area Square Inches per Ft. Width	Pittsburgh	New York*	Chicago	St Louis	Dallas	San Francisco
032	0.032	$0.92	$1.16	$0.98	$0.99	$1.13	$1.32
049	0.049	1.18	1.46	1.26	1.26	1.43	1.67
068	0.068	1.44	1.86	1.53	1.56	1.79	2.06
093	0.093	1.85	2.39	1.97	2.00	2.41	2.65
126	0.126	2.28	3.02	2.43	2.47	2.92	3.28
153	0.153	2.72	3.59	2.90	2.95	3.48	3.93
180	0.180	3.12	4.13	3.33	3.39	3.99	
245	0.245	4.12	5.44	4.40	4.47	5.27	
287	0.287	4.76	6.29	5.08	5.16	6.10	6.86
336	0.336	5.52	7.30	5.89	5.99	7.06	
395	0.395	6.40	8.45	6.83	6.94	8.19	

PAVING

036P	0.036	$0.71	$0.92	$0.76	$1.77	$0.80	
053P	0.053	1.00	1.28	1.06	1.08	1.12	
072P	0.072	1.26	1.66	1.34	1.37	1.46	
097P	0.097	1.62	2.12	1.73	1.76	1.88	
049R	0.049	1.00	1.28	1.06	1.08	1.12	
067R	0.067	1.26	1.65	1.34	1.37	1.46	
089R	0.089	1.62	3.11	1.73	1.76	1.88	

Made in 16-, 20-, 24-, 28-, 32-, 36-, 40-, 44-, 48-, 52- and 56-in. width in rolls 150-, 200- and 300-ft. lengths. Galvanized is about 10% higher.

‡Note—Practically no triangle mesh in New York market

EXPANDED METAL LATH—Prices in carload lots per 100 yd. for painted are as follows:

Gage	Weight	New York‡ Current Carloads	New York‡ Less Carloads	Chicago	St. Louis	San Francisco	Dallas
27	233	$32.10	$32.20*	$33.60†	$35.00	$36.00	$32.75
26	250	33.45	33.65*	35.20†	36.00	.....	34.50
25	300	34.90	35.00*	36.90†	.....	39.00	36.75
24	340	36.50	36.65*	40.00†	39.00	44.00	39.25
22	450	39.60	39.80*	45.10†	.....	.....	43.30

* Delivered on job.

†Galvanized is $8 per 100 yd., additional.

*Note—Practically no metal lath in New York market.

BARS, CONCRETE REINFORCING—Following quotations are per 100 lb.

ROLLED FROM BILLETS

In	Mill Pittsburgh	New York Current	Chicago	Dallas	San Francisco
¾ and larger	$2.35@$3.75	$3.52@$5.00	$3.37@$3.90	$3.87 $4.75	$5.30
⅝	2.40@3.75	3.57@5.00	3.42@4.00	3.92 4.80	5.35
½	2.45@3.75	3.62@5.00	3.47@4.05	3.97 4.95	5.40
⅜	2.60@3.75	3.77@5.00	3.62@4.20	4.12 5.00	5.55
¼	2.85@3.75	4.02@5.00	4.07@4.60	4.57 5.05	5.80

Twisted bars cut to length take extra of 29½c. per 100 lb.

ROLLED FROM RAILS

	Chicago	St. Louis	Dallas		Chicago	St Louis	Dallas
¾ in. and larger	$3.75	$3.50	$4.25	¾	$4.00	$3.75	..
⅝	3.80	3.55	4.30	⅝	4.25		
½	2.85	3.60	.....				

BRICK—To contractors price per 1000 in cargo or carload lots is as follows:

	Common Current	Common One Month Ago	Common One Year Ago	Paving Block 3-inch	Paving Block 4-inch
New York	$25.00	$25.00	$15.00	$48.50*	†52.50*
New Orleans	24.50	23.00	17.50		
Chicago	15.00	14.00	12.00		39.51
St. Louis, salmon	16.00	16.00	10.00		37.00
Denver	17.00	17.00	12.00	....	....
Dallas	24.00	24.00	18.00		
San Francisco	18.00	15.00	12.50		44.38
Los Angeles	13.50	13.50	12.50		...
Boston	32.00	30.00	18.00		
Minneapolis	21.00	20.00	10.25	....	
Kansas City	22.00	22.00	15.00		....
Seattle	15.00	15.00	15.00	44.50	53.50
Cincinnati	24.00	24.00	16.00		.....
Montreal (del.)	16.00	17.50	15.00		.....
Detroit	23.00	23.00	13.50	40.00	48.00
Baltimore (del.)	20.00–25.00	18.00–22.00	....	40.00	44.00

For paving blocks 3½x8½x3 and 3½x8½x4 respectively. †Hard brick $20.50 in St. Louis.

HOLLOW TILE—Price per block in carload lots for hollow building tile:

	New York Current on Trucks	New York One Year Ago	Chicago	St Louis	San Francisco	Factory Perth Amboy, N. J.
4x12x12	.....	$0.11475	$0.1516	None	$0.1425	
6x12x12	.....	.153	.2274	"	.1800	
8x12x12	.....	.204	.2728	"	.2925	
10x12x12	.....	.....	.3411	"	.....	
12x12x12	.....	.....	.4093	"	.....	

Note—Principal manufacturer is behind in deliveries.

	4x12x12	8x12x12	12x12x12
Boston	$0.25	$0.45	$0.70
Minneapolis	.087	.158	.248
Cincinnati	125	2186	3286
Kansas City		No prices obtainable	
Denver	.12	.185	....
Seattle	.09	.175	.30
Atlanta	.115	.19	.28
Los Angeles	.10	.175	....
New Orleans	.238	.304	.43
Detroit		23 per cent. off list	
Montreal	.22	30	.36
Baltimore	27	48	63

STRUCTURAL MATERIAL—Following are base prices f.o.b. mill, Pittsburgh, together with quotations per 100 lb. from warehouses at places named:

	Mill Pittsburgh	New York Current	New York 1 Yr. Ago	St. Louis	Chicago	San Francisco
Beams, 3 to 15 in.	$2.45@$3.75	$4.47	$3.47	$4.04	$3.97	$5.85
Channels, 3 to 15 in.	2.45@ 3.75	4.47	3.47	4.04	3.97	5.85
Angles, 3 to 6 in., ¼ in. thick	2.45@ 3.75	4.47	3.47	4.04	3.97	5.85
Tees, 3 in. and larger	2.45@ 3.75	4.52	3.52	4.09	4.02	5.85
Plates	2.65@ 3.75	4.67	3.67	4.24	4.17	6.30

RIVETS—The following quotations are per 100 lb.:

STRUCTURAL

	Mill Pittsburgh	New York Current	New York One Yr. Ago	Warehouse Chicago	Warehouse St. Louis	Warehouse San Francisco	Warehouse Dallas
¾ in. and larger	$4.72	$6.00	$5.05	$5.62	$5.69	$6.65	$7.50
CONE HEAD BOILER							
¾ in. and larger	4.82	7.10	5.15	5.72	5.79	6.75	7.50
⅝ and 11/16	4.97	7.25	5.30	5.87	5.94	7.00	7.50
½ and 9/16	5.22	7.50	5.55	6.22	6.19	7.25	7.75

Lengths shorter than ⅝ in. take an extra of 50c. Lengths between 1 in. and 2 in. take an extra of 25c.

NAILS—The following quotations are per keg from warehouse:

	Mill Pittsburgh	New York	Chicago	San Francisco	Dallas	Montreal
Wire	$3.25@$4.50	$8.50	$4.15	$6.00	$6.90	$4.95
Cut	6.20	9.00	6.45	8.50	6.40	5.00

PREPARED ROOFINGS—Standard grade rubbered surface, complete, with nails and cement, costs per square as follows at maufacturing points:

	1-Ply c.l.	2-Ply l.c.l.	3-Ply c.l.
No. 1 grade	$2.40	$2.90	$3.45
No. 2 grade	2.15	2.00	3.10

Slate-surfaced roofing (red and green) in rolls of 108 sq.ft. costs $3.50 per roll n carload lots and $3.75 for smaller quantities.

Shingles, red and green slate finish, cost $7.75 per square in carloads; $8.00 in smaller quantities, in Philadelphia.

ROOFING MATERIALS—Prices per ton f.o.b. New York and Chicago:

Tar felt (14 lb. per square of 100 sq.ft.) per roll	$3.50
Tar pitch (in 400-lb. bbl.) per 100 lb.	1.85
Asphalt pitch (in barrels) per ton	46.50
Asphalt felt (light) per ton	118.00
Asphalt felt (heavy) per ton	119.50

SHEETS—Quotations are in cents per pound in various cities from warehouse also the base quotations from mill:

Blue Annealed	Large Mill Lots Pittsburgh	St. Louis	Chicago	San Francisco	New York Current	New York One Yr. Ago
No. 10	$3.75@$7.00	$7.09	$7.02	$8.25	$6.62@$8.00	$4.57
No. 12	3.80@ 7.05	7.09	7.07	8.30	6.67@ 8.05	4.62
No. 14	3.85@ 7.10	7.09	7.12	8.35	6.22@ 8.10	4.67
No. 16	3.95@ 7.20	7.09	7.17	8.45	6.82@ 8.20	4.77
Black						
*Nos. 18 and 20	4.15@ 7.30	8.10	7.80	9.35	7.80@ 8.80	5.17
*Nos. 22 and 24	4.20@ 7.35	8.10	7.85	9.40	7.85@ 8.85	5.22
*No. 26	4.25@ 7.40	8.10	7.90	9.45	7.90@ 8.90	5.27
*No. 28	4.35@ 7.50	8.10	8.00	9.55	8.00@ 9.00	5.37
Galvanized						
No. 10	5.80@ 7.50	9.60	8.50	.....	8.25@10.00	5.50
No. 12	4.80@ 7.60	9.60	8.60	10.10	8.35@10.10	5.55
No. 14	4.80@ 7.60	9.60	8.60	10.10	8.35@10.10	5.60
Nos. 18 and 20	5.10@ 7.90	9.60	8.90	10.40	8.65@10.40	5.90
Nos. 22 and 24	5.25@ 8.05	9.60	9.05	10.55	8.80@10.55	6.05
*No. 26	5.40@ 8.20	9.60	9.20	10.70	8.95@10.70	6.20
*No. 28	5.70@ 8.50	9.60	9.50	11.00	9.25@11.00	6.50

*For painted corrugated sheets add 30c. per 1000 lb. for 5 to 28 gage; 25c. for 19 to 24 gages; for galvanized corrugated sheets add 15c., all gages.

LINSEED OIL—These prices are per gallon:

	New York Current	New York One Year Ago	Chicago Current	Chicago One Year Ago
Raw in barrel (5 bbl.)	$1.63	$1.90	$2.05	$2.10
5-gal. cans	1.65*	2.98	2.30	2.30

*To this price must be added the cost of the cans (returnable), $2.25 for case of six.

WHITE AND RED LEAD—Base price per pound:

	Red Current Dry	Red Current In Oil	Red 1 Year Ago Dry	Red 1 Year Ago In Oil	White Current Dry and In Oil	White 1 Year Ago Dry and In Oil
100-lb. keg	15.50	17.00	13.00	14.50	15.50	[illegible]
25 and 50-lb. kegs	15.75	17.25	13.25	14.75	15.75	[illegible]
12½-lb. keg	16.00	17.50	13.50	15.00	16.00	[illegible]
5-lb. cans	18.50	20.00	15.00	16.50	18.50	[illegible]
1-lb. cans	20.50	22.00	16.00	17.50	20.50	[illegible]

500 lb. lots less 10% discount; 2000 lb. lots less 10-2½% discount.

LUMBER

San Francisco—Prices of rough Douglas fir No. 1 common, in more than carload lots:

	Lumber Prices in Yards at San Francisco 6-8-12 and 14 Ft	10-16-18 and 20 Ft	22 and 24 Ft	25 to 32
3x3 and 4	$33.50	$34.00	$35.00	[illegible]
3x6 and 8	34.50	35.00	36.00	[illegible]
4x4 6 and 8	35.00	36.00	37.00	[illegible]
3x10 and 12	35.00	36.00	37.00	[illegible]
3x14	35.50	36.50	37.50	[illegible]
4x10 and 12	35.00	36.00	37.00	[illegible]
4x14	36.00	37.00	38.00	[illegible]

	24 Ft. and Under	25 to 32 Ft.	33 to 40
6x10	$34.50	$36.50	[illegible]
6x14	36.00	38.00	[illegible]
8x10	34.50	36.50	[illegible]
8x14	36.00	38.00	[illegible]

New York, Chicago and St. Louis

	Southern Pine New York* 20 Ft. and Under	New York* 22-24 Ft.	Chicago 20 Ft. and Under	Chicago 22-24 Ft.	Yellow Pine St. Louis 20 Ft. and Under	St. Louis 22-24 Ft.
3x 4 to 8x 8	$53.00	$54.00	$68.00	$69.00	$50.00	$51.00
3x10 to 10x10	57.00	58.00	70.00	71.00	55.00	56.00
3x12 to 12x12	67.00	68.00	73.00	74.00	57.50	58.50
3x14 to 14x14	70.00	71.00	78.00	79.00	65.00	66.00
3x16 to 16x16	75.00	76.00	83.00	84.00	67.50	68.50
3x18 to 18x18	85.00	86.00	88.00	89.00	72.50	73.50
4x20 to 20x20	90.00	91.00	.....	.....	.....	.....

* Prices from Lumbermen's Bureau

Over 24 ft.—Add $1 for each additional 2 ft. in length up to 40 ft. for sizes 12 x 12 and under; for sizes over 12 x 12 add $2. For merchantable add $2 to sizes 10 x 10 and under. For prime add $2 to the price of merchantable for all sizes.

Other Cities

	8 x 8-In. x 20-Ft. and Under P.	Fir	Hemlock	Spruce	12 x 12-In. 20 Ft. and Under P.	Fir
Boston	$100.00	$85.00	.....	$80.00	$110.00	$105.00
Kansas City	51.00	51.25	$51.25	51.25	60.00	51.25
Seattle	.....	34.00	.....	.....	.....	35.00
New Orleans	53.00	.....	.....	.....	59.00	.....
St. Paul	62.00	61.00	61.00	47.50	43.00	58.00
Atlanta	62.50	64.50	66.00	76.00	79.50	82.00
Baltimore	75.00	.....	.....	.....	87.50	.....
Cincinnati	45.00	50.00	50.00	...	55.00	55.00
Montreal	80.00	80.00	65.00	75.00	73.00	100.00
Los Angeles †	.....	57.00	.....	.....	.....	59.00
Detroit	67.00	.....	.....	.....	79.00	[illegible]
Denver	.....	65.00	65.00	65.00	.....	66.00

	1-In. Rough, 10 In. x 16 Ft. and Under P.	Fir	Hemlock	2-In. T. and Gr. 10 In. x 16 Ft. P.	Fir
Boston	$115.00	$85.00	$65.00	$100.00	$85.00
Kansas City	102.00	106.50	106.50	112.00	112.75
Seattle	.....	37.50	.....	.....	38.50
New Orleans	.....	.....	.....	67.50	.....
St. Paul	54.00	54.00	53.00	64.50	58.50
Atlanta	85.00	90.00	.....	77.50	87.50
Baltimore (box)	65@67.50	.....	.....	60–65.00	.....
Cincinnati	50.00	55.00	50.00	45.00	50.00
Montreal	75.00	75.00	66.00	.....	.....
Los Angeles	.....	58.00	.....	.....	.....
Detroit	50.00	.....	49.00	44.00	.....
Denver	.....	62.00	62.00	140.00	127.50

* Montreal—Up to 32 ft.; over which, $3.00 per M. increase up to 30 ft.

† Base price, 2 x 3's and 2 x 4's, 8 to 14 ft., is $54.00

Detroit—Dimension stuff ranges from $60 to $68. See "ups and downs in the market."

Dallas—Yellow pine. Price per M:

	June 1, 1920
1 in. rough, 10 in. and under, 16 ft. and under	$62.50
2 in., t and g., dressed and matched, 10 in. x 16 ft. and under	62.50
8 x 8 and under, 20 ft. and under	72.50
12 x 12, 20 ft. and under	75.00

FREIGHT RATES

On finished steel products in the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, flat sheets (except planished), chains, etc., the following freight rates are effective in cents per 100 lb.:

Boston	$0.30	New Orleans	$0.38½
Buffalo	.17	New York	.27
Chicago	.27	Pacific Coast (all rail)	1.25*
Cincinnati	.23	Philadelphia	.24½
Cleveland	.17	St. Louis	.24
Denver	.99	St. Paul	.49½
Kansas City	.59	Detroit	.33
		Baltimore	.27½

Note—Add 3% transportation tax. * Minimum carload, 50,000 lb.

CONTRACTORS' SUPPLIES

STEEL SHEET PILING—The following price is base per 100 lb. f. o. b. Pittsburgh, with a comparison of a month and a year ago:

Current	One Month Ago	One Year Ago
$2.55@$3.65	$2.55@3.65	$2.25

WIRE ROPE—Discounts from list price on regular grades of bright and galvanized are as follows:

	New York and St. Louis
Hercules red strand, all constructions	20%
Patent flattened strand, special and cast steel	20%
Patent flattened strand, iron rope	5%
Plow steel round strand rope	30%
Special steel round strand rope	30%
Cast steel round strand rope	22½%
Iron strand and iron tiller	5%
Galvanized iron rigging and guy rope	+12%

San Francisco: Galvanized Iron Rigging and Guy Ropes, +17½%; Bright Plow, 25% off.

Chicago, +12½ on galvanized, 30 off on bright.

MANILA ROPE—For rope smaller than ¾-in. the price is ½ to 2c. extra; while for quantities amounting to less than 600 ft. there is an extra charge of 1c. The number of feet per pound for the various sizes is as follows: ¾-in., 8 ft., ⅞-in., 6; ⅞-in., 4½; 1-in., 3½; 1⅛-in., 2 ft. 10 in.; 1¼-in., 2 ft. 4 in. Following is price per pound for ¾-in. and larger, in 1200-ft. coils:

Boston	$0.30	New Orleans	$0.28½
New York	.29	Los Angeles	.31
Chicago	.27½	Seattle	.28
St. Paul	.27½	St. Louis	.26½
San Francisco	.27	Montreal	.35½
Atlanta	.29½	Detroit	.26
Denver	.27½	Baltimore	.27
Cincinnati	.35	Dallas	.34½
Kansas City	0.30½		

EXPLOSIVES—Price per pound of dynamite in small lots and price per 25 lb. keg for black powder.

	Low Freezing 20%	Gelatin 40%	Gelatin 60%	Gelatin 80%	Black Powder
New York		$0.34½	$0.34½		$2.30
Boston	$.24	.23½	.26½	$.29½	2.40
Kansas City	.24½	.27	.30	.34½	2.60
Seattle	.18	.21½	.24½	.29	2.45
Chicago	.21½	.25½	.29½	.34	2.45
St. Paul	.18½	.22½	.25½	.29½	2.25
St. Louis	.21½	.26	.28½	.29½	1.90
Denver	.20½	.24½	.27½	.31½	2.50
Dallas	.26½*	.27½	.30½	....	2.60
Los Angeles	.22	.27	.31	....	2.95
Atlanta	.22	.24½	.26½	....	2.55
Baltimore	.22½	.26½	.30½	.32½	2.40
Cincinnati	.22½	.25½	.27½	....	2.30
Montreal	.30	.32	.37	.38	4.10
New Orleans	.24½	.28½	.31½	.38	2.50

* 30 Per Cent.

POLES—For plain pine poles, delivered New York, the price is as follows:

10-in. butts, 5-in. tops, length 20-30 ft.	$9.00
12-in. butts, 6-in. tops, length 30-40 ft.	11.50
12-in. butts, 6-in. tops, length 41-50 ft.	12.50
14-in. butts, 6-in. tops, length 51-60 ft.	21.00
14-in. butts, 6-in. tops, length 61-71 ft.	23.50

	Dallas
6-in. x 20-ft.	$4.60
6-in. x 30-ft.	7.10
8-in. x 30-ft.	8.45
8-in. x 35-ft.	10.38

OLD MATERIAL—The prices following are per gross ton paid to dealers and producers in New York. In Chicago and St. Louis the quotations are per net ton and cover delivery at the buyer's works, including freight transfer charges.

	New York	Chicago	St. Louis
No. 1 railroad wrought	$30.00	$25.50	$28.00
Stove plate	24.50	28.00	30.50
No. 1 machinery cast	36.00	36.00	37.00
Machine shop turnings	15.50	10.00	13.00
Cast borings	17.50	12.50	15.50
Railroad malleable cast	30.00	25.50	27.00
Re-rolling rails	59.00		
Relaying rails	54.00	50@55	50@55

SHIP SPIKES—Current prices per 100 lb.

	San Francisco		Seattle
In	Galv.	Black	Black
½	$9.20	$8.50	$8.55
⅝	8.75	6.75	8.25
¾	8.60	6.60	8.30

Pittsburgh base, $4.50 per 100 lb.

LABOR RATES AND CONDITIONS THROUGHOUT THE COUNTRY

S means scarce; E. enough; P. plentiful

Cities	Bricklayers	Carpenters	Hoisting Engineers	Hod Carriers	Pile Drivers	Structural Iron Workers	Common Labor
Atlanta	$0.90S	$0.60–75P	$0.50–65P	$.40–.45P	$0.60–.65	$0.75	$0.35S
Baltimore	1.00P	.80–90E	.87½E	.46–.54E	.74P	1.00E	.35–.45P
Boston	1.00E	1.00E	1.00E	.85E	1.25E	1.00E	.67½S
Cincinnati	1.25S	.90E	.75E	.70E	....	.87½E	.60S
Cleveland	1.00S	.90S	1.00E	.57½E	.80E	1.00E	.57½E
Dallas	1.25S	1–1.25S	1.00E	.60E	1.00E	1.25S	.44–.60S
Denver	1.12½E	1.12½E	1.00E	.68½–.75	....	1.00E	.50E
Detroit	1.25P	1.00P	1.10P	.70P	1.10P	1.25P	.65P
Kansas City	1.12½	1.00	1.00	.90	1.00	1.10	.75
Los Angeles	1.25P	.87½P	.87½P	1.00P	.87½P	.87½P	.56¼–.62½E
Minneapolis	1.25	1.00P	1.00	.65	.80	.86	.58–.70
Montreal	1.00	.80–.85	.65S	.50@.60S	.50	.50–.65	.45–.55P
New Orleans	1.00E	.90	.100E	.87½E	.100	1.00E	.35–.50P
New York	1.25	1.12½	1.25	.87½	1.12½	1.12½	.75–.80
Pittsburgh	1.12½S	.90S	.90S	.80S	1.00	1.25S	.50S
St. Louis	1.25	1.25	1.12½–1.25	.70	1.00–1.25	1.25	.52–.75
San Francisco	1.25E	1.06¼E	1.12½E	.93¾E	1.06¼E	1.12½E	.81¼E
Seattle	1.12	.93¾	.94	.75–.80	.90	1.00	.75S

Remarks

Atlanta—Great activity in construction. Common labor scarce.

Baltimore—Satisfactory supply of labor.

Boston—Labor scarce. Construction work slowing down.

Cincinnati—Common labor scarce.

Dallas—Common labor very scarce. Bricklayers, ironworkers and carpenters scarce.

Denver—General increase. Double pay for overtime.

Detroit—All classes of labor is plentiful owing to slackness in construction because of lack of material. Bricklayers ask $1.25; hoisting engineers ask $1.25.

Kansas City—Schedule now in effect.

Los Angeles—Rates shown are union; non-union a little less; but union scale prevails generally. Slight slowing up of construction.

Minneapolis—Rates given by Minneapolis Builders' Exchange.

Montreal—Carpenters now work 8 hours, as do bricklayers. Common labor plentiful, owing to immigration.

New Orleans—Pile drivers strike July 1 for $1.25.

New York—Agreement of Nov. 20, 1919, was modified as shown, effective May 1, 1920. Excavators, 75c.; Concrete workers, 81¼c.

Pittsburgh—All classes have been on strike since June 1. Carpenters are asking $1.50.

St. Louis—Bricklayers' helpers receive 80c.; Carpenters' helpers, 67½c.; as to hoisting engineers the rates are $1.12½ for one drum, $1.25 for two drums, and $1.21½ for road roller. Pile drivers receive $1.00 on wood and concrete, $1.25 on steel. Unskilled labor is classified as follows: Common, 52c.; construction, 67½c.; pipe laying, 75c.; track, 53c.

San Francisco—All lines busy. Common labor quotation is for union labor.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
July 7	Dearborn, Mich.	June 24
	Adv. June 24 and July 1.	
July 9	Collinsville, Ill.	June 10
	Adv. June 24 and July 1.	
July 10	Orem (Provo P. O.), Utah	July 1
July 12	Buffalo, Minn.	July 1
July 15	Pipestone, Minn.	July 1
July 23	Akron, O.	June 24
	Adv. July 17 to July 1.	

SEWERS

July 3	Long Island City, N. Y.	July 1
July 6	Coatesville, Pa.	June 24
	Adv. June 24 and July 1.	
July 6	Boonton, N. J.	June 17
July 6	Danville, Ky.	June 24
	Adv. June 24 and July 1.	
July 6	Detroit, Mich.	July 1
July 6	Laredo, Tex.	July 1
July 9	Worthington, O.	June 24
July 12	Amery, Wis.	July 1
July 12	Milford, Mich.	June 24
July 19	Dallas, Ore.	May 27
Aug. 2	Pontiac, Mich.	July 1

BRIDGES

July 2	Lyons, N. Y.	June 24
	Adv. June 17 to July 1.	
July 2	Abiquin, N. M.	June 24
July 3	Williamsport, Pa.	June 24
July 3	Granville, N. Y.	June 17
July 5	Greenfield, Ind.	June 17
July 6	Elk Point, S. D.	June 17
July 6	Yorba Linda, Cal.	June 17
July 6	Meridian, Miss.	June 24
July 6	Manchester, N. H.	June 17
July 6	San Jose, Cal.	June 24
July 7	Red Bank, N. J.	June 17
	Adv. June 24 and July 1.	
July 7	Springfield, Ill.	July 1
July 8	Richmond, Va.	July 1
July 9	Missouri	July 1
July 12	Chadds Ford, Pa.	June 24
	Adv. June 24 and July 1.	
July 12	Nevada	June 24
	Adv. June 24 and July 1.	
July 12	West Union, O.	July 1
July 17	Tiffin, O.	July 1
July 21	Frederica, Del.	July 1
	Adv. July 1.	

STREETS AND ROADS

July 2	New York	June 24
	Adv. June 24 and July 1.	
July 3	St. Davids, Que.	June 24
July 5	New Madrid, Mo.	June 17
	Adv. June 24 and July 1.	
July 5	Montreal, Que.	July 1
July 6	Bucyrus, O.	July 1
July 6	Massachusetts	July 1
July 6	Wilmington, Del.	June 17
July 6	Amsterdam, N. Y.	June 24
July 6	Santa Barbara, Cal.	June 17
July 6	Visalia, Cal.	June 17
July 6	Charleston, S. C.	June 24
July 6	Baltimore, Md.	June 24
	Adv. June 24 and July 1.	
July 6	Athens, Ga.	June 24
July 6	Dallas, Ore.	May 27
July 6	Parnassus, Pa.	June 24
July 6	Baltimore, Md.	June 24
July 6	New Mexico	June 24
July 6	Maryland	June 24
July 6	Columbia, S. C.	July 1
July 6	Wisconsin	July 1
July 6	Ontario	July 1
July 6	Indiana	July 1
July 6	Wisconsin	July 1
July 6	New York, N. Y.	July 1
July 6	Carthage, N. Y.	July 1
July 7	Indiana	July 1
July 7	Glens Falls, N. Y.	July 1
	Adv. July 1.	
July 7	North Carolina	July 1
July 7	Caledonia, Minn.	July 1
July 7	Baltimore, Md.	July 1
	Adv. July 1.	
July 7	Springfield, Ill.	June 24
July 7	Rhode Island	June 24
	Adv. June 24 and July 1.	
July 7	Jersey City, N. J.	June 24
July 7	Hood River, Ore.	June 24
July 7	Breckenridge, Minn.	June 24
July 7	Hudson Falls, N. Y.	June 24
	Adv. June 24 and July 1.	
July 7	Baltimore, Md.	June 24
	Adv. June 24 and July 1.	
July 7	Wisconsin	June 24
July 7	Springfield, Ill.	July 1
July 7	Kingston, S. C.	July 1
July 8	Washington, Kan.	June 24
July 8	Indiana	July 1
July 8	Wisconsin	July 1
July 8	Clarion, Ia.	July 1
	Adv. July 1.	
July 8	St. George, S. I., N. Y.	July 1
July 9	North Carolina	July 1
July 9	Monticello, Mo.	July 1
July 9	Wisconsin	July 1
July 9	Akron, O.	June 24
	Adv. June 24 and July 1.	
July 9	Kansas City, Kan.	June 24
July 10	Quebec	June 24
July 10	New Mexico	June 24
July 12	Fergus Falls, Minn.	June 17
July 12	Madison, W. Va.	June 17
July 12	Auburn, N. Y.	June 24
	Adv. June 24 and July 1.	
July 12	Troy, Kan.	June 24
July 12	Baltimore, Md.	June 24
	Adv. June 24 and July 1.	
July 12	Brainerd, Minn.	July 1
July 12	Olympia, Wash.	July 1
July 13	Redwood Falls, Minn.	July 1
July 13	Ft. Scott, Kan.	June 24
July 13	Ft. Scott, Kan.	July 1
July 14	Ontario	July 1
July 14	Baltimore, Md.	June 24
	Adv. June 10 to July 1.	
July 14	Tavares, Fla.	June 10
July 14	Mora, Minn.	June 24
July 15	Austin, Tex.	July 1
July 15	Flemington, N. J.	June 24
July 16	Nashville, Tenn.	July 1
July 16	Charleston, W. Va.	July 1
July 16	New Mexico	June 24
July 17	New Mexico	June 24
July 19	Okeechobee, Fla.	July 1
	Adv. July 1.	
July 19	Silver Lake, O.	July 1
July 20	Moundsville, W. Va.	July 1
July 23	Garden City, Kan.	June 24
July 24	Crowley, La.	July 1
	Adv. July 1.	
July 25	Ohio	July 1

EXCAVATION AND DREDGING

July 6	Paducah, Ky.	June 24
	Adv. June 10 to July 1.	
July 7	Montezuma, Ia.	June 24
	Adv. June 17 to July 1.	
July 17	Belzoni Miss.	June 24
June 28	Wasseca, Minn.	June 24

INDUSTRIAL WORKS

July 6	Detroit, Mich.	July 1
July 7	Dannemora, N. Y.	July 1
	Adv. June 24 and July 1.	
July 7	Ogdensburg, N. Y.	July 1
	Adv. July 1.	
July 12	Butler, N. J.	July 1
	Adv. July 1.	
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

July 5	Camden Point, Mo.	June 24
July 5	Killduff, Ia.	June 24
July 5	Cambria, Ia.	June 17
July 6	Watertown (Boston P. O.), Mass.	July 1
July 7	Gallipolis, O.	June 17
July 7	Warren, O.	June 24
July 7	Uniontown, Pa.	July 1
July 8	McCallsburg, Ia.	July 1
July 9	Collins, Ia.	July 1
July 9	Brookville, O.	July 1
July 12	St. Paul, Minn.	July 1
July 15	Wake Forest, N. C.	July 1
July 15	Jonesboro, Ark.	May 27
July 15	Coleraine, Minn.	June 10
July 15	Wilmington, N. C.	July 1
July 16	Fullerton, Cal.	June 17
July 20	Roselle Park (Elizabeth P. O.), N. J.	July 1
	Adv. June 24 and July 1	
July 25	Liberty Center, Ia.	June 24
Aug. 2	Salina, Kan.	June 17
Aug. 16	Sioux City, Ia.	June 17

FEDERAL GOVERNMENT WORK

July 3	Structural Steel, Castings, etc.—Louisville, Ky.	June 10
	Adv. June 17 to July 1.	
July 5	Removing Old Conduit, etc. —Opelousas, La.	July 1
July 7	Incinerator—Spec. 4137—Quantico, Va.	June 24
July 7	Sewers and Watermains — Spec. 4178 — Hampton Roads, Va.	June 24
July 7	Storehouse — Spec. 4157 San Diego, Cal.	June 24
July 8	Charcoal Iron Boiler Tubes Charleston, S. C.	June 3
July 8	Sand, Gravel, Crushed Limestone, etc.—Buffalo, N. Y.	July 1
	Adv. July 1.	
July 8	Steel Dump Scow—Louisville, Ky.	June 10
	Adv. June 17 to July 1.	
July 8	Rubber Hose — Memphis, Tenn.	June 17
July 9	Brick Set, etc.—Athens, O.	June 24
July 12	Additions and Repairs to Conduit, etc.—Zanesville, O.	June 24
July 12	Repairing Asphalt Pavements—Wash., D. C.	July 1
	Adv. June 24 and July 1.	
July 12	Sheet Asphalt Pavements—Wash., D. C.	July 1
	Adv. June 24 and July 1.	
July 14	Seagoing Hopper Dredge Sabine—Galveston, Tex.	June 17
July 14	Steel Hull Derrick Boat—Pittsburgh, Pa.	July 1
	Adv. July 1.	
July 15	Removing Present Conduit, etc.—Cleveland, O.	July 1
July 15	Galvanized Wire, Wire Strand, Staples and Wire Rope Clips — Memphis, Tenn.	June 17
	Adv. June 24 and July 1.	
July 15	Dredging — Wilmington, Del.	June 17
July 15	Gate and Valve Operating Machinery — Pittsburgh, Pa.	June 24
	Adv. June 24 and July 1.	
July 16	Repairing Boiler Plant — St. Louis, Mo.	July 1
July 19	Repairing Breakwater and Placing Rip Rap—Cleveland, O.	July 1
	Adv. July 1.	
July 24	Dredging — New York, N. Y.	June 24
July 30	Widening and Deepening — New Orleans, La.	July 1
	Adv. July 1	

MISCELLANEOUS

July 6	Pipe—Terra Bella, Cal.	June 17
July 6	Pier—Bayfield, Ont.	June 24
July 6	Wharf—Ste. Famille, Que.	June 24
July 7	Culverts—Toronto, Ont.	July 1
July 7	Bleachers—New Bedford, Mass.	July 1
July 8	Bleachers—New Bedford, Mass.	July 1
July 8	Laundry Machinery—Randalls Island, N. Y.	June 10
July 12	Tractors, Elevating Graders and Dump Wagon—Wadena, Minn.	June 17
July 20	Terminal Freighthouse — New York, N. Y.	June 24
	Adv. June 24 and July 1.	
Aug. 7	Pier and Transit Sheds — Vancouver, B. C.	July 1

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Wyo., Evanston—City election July 12 to vote on $290,000 bonds to build complete water-works system. Prince & Nixon, Omaha, Neb., engrs.

Cal., Sacramento—City Comrs. receive bids about Aug. 15, building filtration plant to include intake, pier and conduits, cost $155,000; pumping plant, $275,000; filters, head house and sump, $225,000; filtered water basin, $115,000; coagulating basins, $190,000; coagulating house, $75,000; piping, valves, etc., $70,000; conduits to distributing system, $130,000; roads, lighting, etc., $25,000; outfall, drains, etc., $12,000; miscellaneous, $70,000; land, $126,000; engineering, $130,000 and contingencies, $50,000. M. J. Desmond, city clk.

N. B., St. Andrew—City having plans prepared and soon receives bids building waterworks system. Bonds for $75,000 voted for project.

Ont., London—Cities of London and St. Thomas plan to build 25 mi. pipe line from Lake Erie. About $3,000,000. E. V. Buchanan, c/o Utilities Comn., engr.

BIDS DESIRED

Fla., Okeechobee — See "Streets and Roads."

Minn., Buffalo—Until July 12, by B. A. Bonstrom, city clk., furnishing and laying 7,525 lin.ft. 4-8 in. Class "B" c.i. pipe, 16 hydrants, etc. About $30,000. Noted June 24.

Minn., Pipestone—Until July 15, by S. W. Funk, city clk., improving waterworks system, to include water tower, 150,000 gal. tank, rein.-con. reservoir, with 500,000 gal. capacity and pumping plant. About $50,000. L. P. Wolff, 1009 Guardian Life Bldg., St. Paul, engr.

Utah, Orem (Provo P. O.)—Until July 10, by Town Bd., furnishing labor and materials for building waterworks system, involving 60,000 ft. 8-12 in. wood and 40,000 ft. 2-6

Waterworks (Continued)

in. galvanized iron pipe, 6,000 lin.ft. 4-6 in. tile and 16,000 cu.yd. excav. F. A. Jacobs, Provo, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Boston — City received bids June 24, building high pressure water system in North, Commercial, Portland, Medford and Friend Sts., from C. and R. Constr. Co., $111,859; J. Barletta, $117,699; V. Grande, $128,483.

N. Y., New York—B. S. Coler, comr. Dept. Pub. Welfare, Municipal Bldg., received lowest 3 bids June 25, furnishing labor and material building and completing water supply system for fire and domestic use for 21 pavilion buildings, group building, dining hall and present nurses home at Seaview Hospital, also sections of new mains at Farm Colony, Richmond Boro., from N. D. Stefano, 257 Glenn Ave., Tompkinsville, $85,950; G. E. Eng. Corp., 22 Laight St., $87,500; Masterson Constr. Corp., 15 East 40th St., $88,700. Noted June 17.

★**Tex., Dallas**—City let contract building dam across Clear Fork of Brazos River, 15 mi. 10 in. c.i. main, distributing system, pumping equipment, stand pipe, etc., to J. W. Moore, Breckenridge, $350,000.

★**O., Cleveland** — City let contract for 228,000 cu.yd. excav. at Baldwin Reservoir to R. E. Carey Co., West 112th St., $312,-360. Noted May 13.

★**Wis., North Milwaukee**—City let contract furnishing and laying 6 mi. water-mains in various streets, to J. M. Donahue, Normal Ave., Stevens Point, $23,700. Noted June 10.

★**Ont., Milverton**—Town let contract laying 14,500 ft. 4-6 in. c.i. pipe for waterworks system, to Webster Constr. Co., Dominion Savings Bldg., London. Noted June 3.

★**Ont., New Toronto**—See "Streets and Roads."

Sewers

PROPOSED WORK

Pa., Phila.—A. Wagner, act. dir. Pub. Wks., prepared plans for constructing main and branch sewers, part of which are to facilitate and promote housing development. Main sewers, to be an extension of Rock Run Sewer, will extend about 4,400 lin.ft. in portions of 18th St., 66th, 67th and Ogontz Aves. Of the 55 branch sewers to be constructed, 20 will be in streets located in built up sections, covering about 6,758 lin.ft. and remaining 35 in streets in outlying sections.

Fla., West Palm Beach—City voted $115,-000 bonds to build sewers.

O., Cleveland—Dunham Co., c/o Wight-O'Rourke Co., engrs., Rose Bldg., soon receives bids building sewers in Dunham Allotment, involving 5,000 ft. 15 in. vitr. pipe. About $25,000.

O., Lorain—West Shore Realty Co., c/o Holland Eng. Co., engrs., B. of L. E. Bldg., Cleveland, soon lets contract building sewer, water main and sewage disposal plant, with 2 septic tanks, in Sandy Beach allotment, involving 1,500 ft. 8-15 in. vitr. and 1,500 ft. 4 in. c.i. pipes. About $35,000.

O., Martins Ferry—City election Nov. 2 to vote on $40,000 bonds to build tile block and rein.-con. sewers in 6th, Hanover and Park Sts., etc. C. P. Lash, Martins Ferry, engr.

Mich., Detroit — City received no bids building Lateral Sewer 3,285 in alley between Beniteau, St. Jean, Canfield and Warren Aves.

Wis., Darlington—City having plans prepared by W. F. Reichard, engr., Watertown, for laying 8-12 in. vitr. sanitary sewers in Minerva and Louisa Sts. About $25,000.

Wis., Lake Mills—City having surveys made by W. G. Kirchoff, engrs., 31 Vroman Blk., Madison, for extending sewerage system above here. About $40,000.

Wis., Milwaukee—City cancelled date of bids for furnishing 2 c.i. syphons under Milwaukee River, new date to be set later. T. C. Hatton, City Hall, engr. Noted June 3.

BIDS DESIRED

N. Y., Long Island City—Until July 3, by M. E. Connolly, pres. Queens Boro., building sewers and appurtenances in Corona Ave. from Alsyne Ave. to Casper St. and from Cobb Pl. to Louona Ave., Merritt Pl. from Corona to Junction Aves., Rust St. from James St. to Flushing Ave., Flushing Ave. from Rust to James Sts., excluding intersection of Broad St., Hebbard Ave. from Flushing to Collins Aves., Mt. Olivet Ave. from Flushing to Collins Aves., Broad St. from Grand to James Sts. and from Hebbard to Mt. Olivet Aves., Beekman St. from State St. to Mitchell Ave., Maure Ave. from Metropolitan Ave. to Kew Gardens Rd., Hillside Ave. N.S. from Maure Ave. to Cottage St., Cottage St. from Hillside Ave. to Kew Gardens Rd., with temporary connection to Hillside Ave. sewer, Hallett St. from Ditmars to Wolcott Aves., building receiving basins on northwest and northeast corners of Manor Ave. and Avondale St., on easterly and westerly sides of Greenwood Ave., 400 ft. north of Jerome Ave., also building park inlet basin at westerly end of Woodmere Pl.

Fla., Okeechobee — See "Streets and Roads."

Mich., Detroit—Until July 6, by Dept. Pub. Wks., furnishing labor and material (except manhole rings and covers), for building and backfilling following, brick, concrete, segmental block or vitr. crock sewers, 4,848 ft. Springle Ave. Sanitary Sewer in Springle and Kercheval Aves. from Connors to Mack Aves., 20-24 in. crock, etc., cost $35,000; 2,262 ft. John R. St. between Six Mile Rd. and Nevada Ave., 3-4 ft. 6 in. cylinder, etc., $50,000; 2,623 ft. Swift Ave. from Six Mile Rd. to Montana Ave., 4-4½ ft. cylinder, etc., $50,000; 2,742 ft. Puritan Ave. from Parkside to Log Cabin Aves., 3-4 ft. cylinder, etc., $50,-000; 2,297 ft. Oakland Ave. from Seven Mile Rd. to Grixdale Ave., 24 in. to 4 ft. cylinder, etc., $40,000.

Mich., Pontiac—Until Aug. 2, by C. W. Hubbell, engr., 2348 Penobscot Bldg., Detroit, constructing sanitary relief sewerage system, involving 12,404 ft. 22-54 in. pipe in open cut and 9,160 ft. 33-48 in. pipe in tunnel, brick, concrete or segmental block. About $550,000. Noted Jan. 8.

Wis., Amery—Until July 12, by C. H. Christenson, city clk., building 11,770 ft. 8-15 in. sanitary sewers, 24 manholes, 4 lampholes, 6 flush tanks, also 1,635 ft. 8-15 in. storm sewers, 322 ft. 8-10 in. inlets and 14 storm inlets. About $37,000. L. P. Wolff, 1000 Guardian Life Bldg., St. Paul, engr.

Tex., Laredo—Until July 6, by City Council, building sewerage system.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract building Muddy River Conduit in Brookline Ave. from Beacon St. to Audubon Rd., to C. and R. Constr. Co., 72 Pinehurst St., West Roxbury, $280,118. Noted June 10.

★**Mass., Lynn**—City let contract building vitr. pipe sewer in Union St., to A. Bamffaldi, 9 Parker Pl., Somerville, $45,139.

★**N. Y., Long Island City** — M. E. Connolly, pres. Queens Boro., let contract building sewer and appurtenances in Depot Lane from Joslin to Norwood Sts., to Green Contg. Co., 534 Vernon Ave., Brooklyn, $13,-510; Ormond St. from Crocheron Ave. to crown about 350 ft. north, to C. Petracca, 3506 Neptune Ave., Brooklyn, $274,685; South St. from Long Island R.R. to Rockaway Turnpike, to N. Lascalzo, $28,161. Noted June 17.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract furnishing labor and material cleaning sewers in various streets, to P. J. Healy, Grand Central Palace, $50,000; also altering and repairing sewer in Murray and other streets, to P. J. Kearns Contg. Co., 2306 Creston Ave., $14,365. Noted June 10.

★**O., Cleveland**—City let contract building sewers in Chestnut Hill Drive from Mapleside Rd. to Park Blvd., to Stevens & McKeon, 4208 East 96th St., $7,633; St. Clair Ave. from East 140th to East 152nd Sts., to D. Zulo, 10501 Hudson Ave., $56,716. Noted June 24.

★**O., West Park**—Village let contract building sewer in Nicholas Ave. from West 150th to West 162nd Sts., involving 2,030 ft. 3-6 ft. circle concrete and 2,770 ft. 12-24 in. vitr. pipe, also 5 manholes, to A. Marra, Illuminating Bldg., Cleveland, $47,286. Noted June 24.

Mich., Detroit—City received bids furnishing labor and material (except manhole rings and covers) building and backfilling (a) Lateral Sewer 3,114, Erwin, Rhons, Bessemore and Georgia Aves., (b) 3,173, 12th, Hamilton, Burlingame and Webb Aves., (c) Linwood Ave. Pub. Sewer Sect. 4, in Linwood Ave. from Fenkell to Puritan Aves., (d) Alter Rd. Pub. Sewer in Mack Ave. from Balfour to Bedford Aves., (e) Lycaste Ave. Pub. Sewer in Lycaste Ave. from end of existing sewer to vicinity Edison plant, from W. Blanck & Co., 827 Ford Bldg., (a) $3,996, (b) $26,350, (c) $69,246, (d) $49,272, (e) $116,482; Walker & Teetaert, Grosse Pointe, (a) $4,400; A. H. Haynes, 70 Davenport St., (a) $4,475; Jeynes & Affeld, 1208 Ford Bldg., (c) $68,-700, (e) $113,000. Noted June 24.

Wis., North Milwaukee—City received bids June 15, building storm sewers in various streets, involving (a) 7,000 ft. 10 in., (b) 8,000 ft. 12 in., (c) 3,000 ft. 15 in. and (d) 2,000 ft. 18 in. vitr. pipe, (e) manholes, (f) catchbasins, from G. E. Zimmerman, 3102 McKinley Blvd., Milwaukee, (a) $1.00 per ft., (b) $1.45, (c) $1.70, (d) $2.15, (e) $45 each, (f) $45 each; G. Wilson, Appleton, (a) $1.55, (b) $1.75, (c) $1.98, (d) $2.78, (e) $72, (f) $42; J. B. Forrestal Co., 215 15th St., Milwaukee, (a) $1.50, (b) $1.84, (c) $2.15, (d) $2.60, (e) $75, (f) $75. Noted June 10.

★**Tex., Plano**—City let contract laying 28,933 ft. 6-8 in. sewer pipe in various streets, building 31 manholes, 15 clean-outs and 2 sewage disposal plants equipped with chlorinators, to Dalton & Campbell, 1915½ Main St., Dallas, $31,254.

Bridges

PROPOSED WORK

Conn., Stamford—Bd. Selectmen plans to build 102 ft. rein.-con. bridge, 38 ft. wide, on Greenwich Ave. About $40,000. J. G. Moore, chn. Private plans.

N. Y., Mt. Vernon — Bronx Parkway Comn., West Pondfield Rd., Bronxville, received no bids June 17, building rein.-con. and steel driveway bridge, here. About $40,000. Work will be readvertised. Noted May 20.

N. Y., New York—Dept. Plants & Structures, Municipal Bldg., rejected bids received June 15, building Eastchester Bridge over Eastchester Creek. About $500,000. Work will be readvertised. Noted June 24.

Pa., Edwardsville (Kingston P.O.)—City plans to build concrete bridge, piers and abutments, on Lawrence St. About $40,000. Architect not selected.

Md., Baltimore—City soon receives bids building 180 ft. rein.-con. bridge over Gwynns Falls, on Windsor Mill Rd., 48 ft. wide. About $70,000. A. E. Christhilf, City Hall, engr.

O., Cleveland—Comrs. Cuyahoga Co. plan to build 10 ft. concrete and steel bridge, 40 ft. wide, over Cuyahoga River, at Alexander's Mills, on Independence-Newburg Rd. About $100,000. W. A. Stinchcombe, co. engr.

O., Gates Mills — Comrs. Cuyahoga Co., Court House, Cleveland, plan to build 100 ft. concrete bridge, 40 ft. wide, over Chagrin River, on Mayfield Rd., here. About $100,-000. W. A. Stinchcombe, co. engr.

O., Solon—Comrs. Cuyahoga Co., Court House, Cleveland, plans to build 100 ft. concrete and steel bridge, 40 ft. wide, on road from here to Chagrin Falls. About $100,-000. W. A. Stinchcombe, co. engr.

Ill., Chicago—Sanitary Dist. receives bids in August, building 320 ft. double leaf bascule bridge over Drainage Canal, on California Ave., to have 120 ft. clear span, 38 ft. roadway and two 8 ft. sidewalks. About $350,000. E. J. Kelly, ch. engr., C. R. Dart, 910 South Michigan Ave., bridge engr.

Wis., Madison—Dane Co. had plans prepared by State Highway Comn., Madison, for 10 x 20 ft., 10 x 24 ft., 14 x 20 ft. and 16 x 24 ft. rein.-con. bridges, all with concrete abutments. F. M. Lipke, comr.

Wis., Marinette—Marinette Co. had plans prepared by State Highway Comn., Madison, for two 18 x 24 ft., one 8 x 20 ft. and one 20 x 30 ft. rein.-con. bridges, concrete abutments, also one 5 x 8 ft. rein.-con. box culvert. A. Eklund, Peshtigo, comr.

Missouri—See "Streets and Roads."

Mo., St. Louis—City having plans prepared for 750 ft. concrete viaduct, 60 ft. wide, over St. Louis Terminal and Missouri Pacific R.R. tracks, on 14th St. Cost between $300,000 and $400,000. L. R. Brown, City Hall, engr.

Tex., Dallas—Dallas Co. rejected bids received June 10, building bridges and drainage structures on Dallas-Scyene Rd. About $60,000. Project temporarily abandoned. W. J. Powell, co. engr.

Tex., Livingston—Polk Co. rejected bids received June 21, building 2 steel span bridges on Highway 35, involving 1,627.5 cu.yd. dry and 1,004.5 cu.yd. wet structural excav., 811 cu.yd. Class "A" and 522 cu.yd. Class "B" concrete, 91,800 lb. reinforcing and 23,470 lb. structural steel. About $87,000; including 10% for engineering and contingencies. W. C. Youngs, Livingston, engr.

Ariz., Florence — Pinal Co. Highway Comn. rejected bids received June 7 building two 140 ft. single span bridges over Mineral Creek, on Ray-Kelvin Highway. Noted May 13.

Cal., San Miguel—Bd. Supervs. San Luis Obispo Co., San Luis Obispo, rejected bids building rein.-con bridge with nine 90 ft. spans, over Salinas River, near here. About $115,000. Work will be readvertised. Noted June 3.

Bridges—(Continued)

Ont., Hamilton—Dept. Pub. Wks. Ottawa, soon receives bids building steel bridge over Burlington Channel, to connect Lake Ontario with Hamilton Harbor. About $100,000.

BIDS DESIRED

Del., Frederica—Until July 21, by State Highway Dept., Dover, building Murderkill River Bridge, involving 420 cu.yd. wet excav., 600 cu.yd. Class A concrete, 25,000 lb. reinforcement, etc.; Spring Creek Bridge, 210 cu.yd. wet excav., 220 cu.yd. Class A concrete, 13,000 lb. reinforcement, etc., Contr. 24-A, C. M. Upham, ch. engr.; advertised in this issue.

Va., St. Clair—Until July 8, by G. P. Coleman, state highway comr., Richmond, building 60 ft. bridge, 16 ft. roadway, over Bluestone River, on Norfolk & Western Ry., 2 mi. from here, steel truss superstructure and plain concrete substructure.

Ohio—See "Streets and Roads."

Illinois—Until July 7, by Dept. Pub. Wks. & Bldgs., Springfield, building 1 steel and 4 concrete bridges, Sects. 24 and 25 B, Vandalia-Cairo Highway, Project 14, Fayette Co., involving 701.3 cu.yd. concrete; 1 steel and 6 concrete bridges, Sects. 26, 27, 28 and 29 B, Marion Co., 178.05 cu.yd. concrete; 4 concrete bridges, Sect. 30 B, Marion and Washington Counties, 389 cu. yd. concrete; 5 concrete bridges, Sects. 31, 32 and 33 B, Washington Co., 6,314 cu.yd. concrete and 1 steel bridge, Sect. 2 B, Jackson Co., 1,100 cu.yd. concrete.

Wisconsin—See "Streets and Roads."

Missouri—Until July 9, by State Highway Bd., Monticello, building Rodefer Bridge, on La Belle-Lewistown Rd., Federal Aid Project 68, Lewis Co., rein.-con. superstructure with 1 concrete pier on 2 concrete abutments, 18 ft. clear roadway, involving 3.3 cu.yd. Class "A," 38.5 cu.yd. Class "B" and 68.5 cu.yd. Class "C" concrete, 1,600 lb. reinforcing steel, cost $2,934; one 20 ft. rein.-con. slab bridge, 18 ft. clear roadway, on 2 concrete abutments, 2.1 cu.yd. Class "A," 29.3 cu.yd. Class "B" and 41 cu.yd. Class "C" concrete, 3,307 lb. reinforcing steel, $2,004; 1 span rein.-con. deck girder superstructure, 18 ft. clear roadway, on 2 rein.-con. abutments, 2.6 cu. yd. Class "A" and 105.4 cu.yd. Class "B" concrete, 9,510 lb. reinforcing steel, $3,526; one 20 ft. rein.con. slab bridge, 18 ft. clear roadway, on 2 concrete abutments, 12.1 cu. yd. Class "A," 29.3 cu.yd. Class "B" and 18.4 cu.yd. Class "C" concrete, 3,160 lb. reinforcing steel, $1,495; one 14 ft. rein.-con. skew slab bridge, 18 ft. clear roadway, on 2 concrete abutments, 1.7 cu.yd. Class "A," 16.8 cu.yd. Class "B" and 40 cu.yd. Class "C" concrete, 2,130 lb. reinforcing steel, $1,709; 77th St. rein.-con. bridge, over Canton Drainage Ditch, in Canton, to have one 30 ft. span and 18 ft. clear roadway, 7.6 cu.yd. Class "A," 299.9 Class "B" concrete, 27,580 lb. reinforcing steel, 810 lin.ft. creosoted wooden piling, $11,501; Balschlett Bridge over Wyaconda River, to have one 85 ft. steel pony truss and three 20 ft. rein.-con. deck girder spans, 3 rein.-con. bents on 1 rein.-con abutment, 18 ft. clear roadway, including capping old pier with concrete and constructing temporary bridge, 62.2 cu.yd. Class "A" and 208.9 cu.yd. Class "B" concrete, 35,560 lb. reinforcing and 45,200 lb. fabricated structural steel, 361 lin.ft. 2 in. gas pipe, $15,124, all on Canton-La Grange Rd., Federal Aid Project 38.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Wareham**—Dept. Pub. Wks., Div. of Highways, and Cohasset Narrows Bridge Comn., at office of Dept. Pub. Wks., State House, Boston, let contract building bridge over Cohasset Narrows between here and Bourne Twps., involving 12,000 gal. bituminous material, 900 ton broken stone, etc., to Holbrook, Cabot & Rollins Corp., 6 Beacon St., Boston, $247,970. Noted June 10.

★**N. Y., Scarsdale** — Bronx Parkway Comn., West Pondfield Rd., Bronxville, let contract building 2 rein.-con. and steel driveway bridges here, to Failac Bros., 7 East 42nd St., New York City, $53,550. Noted May 20.

★**Pa., Wilkes-Barre**—Luzerne Co. let contracts to R. Hand, South Main St., building 2 rein.-con. bridges, one in Exeter Twp., other on Sullivan Trail, $15,550 and $13,500 respectively.

★**W. Va., Beckley**—Raleigh Co. let contract building 2 bridges in Marsh Fork Dist., involving 144 cu.yd. earth approach and fill, 200 cu.yd. excav., 292.8 cu.yd. Class "A" and 491 cu.yd. Class "B" concrete, 50,235 lb. steel, to Concrete Steel Bridge Co., Clarksburg, $30,046.

★**Ind., Terre Haute** — See "Streets and Roads."

★**Illinois** — Dept. Pub. Wks. and Bldgs., Springfield, let contracts building concrete bridge, Project 11, Sect. S, Vermilion Co., to Love-Richards Co., Hoopeston, Ill., $23,515; 4 concrete bridges, Project 1, Sect. 24, Whiteside Co., and 1 concrete bridge, Project 1, Sect. 25, Ogle Co., to Oltendorf Constr. Co., Palatine, Ill., $33,580 and $5,024 respectively. Noted June 3.

★**Wis., Milwaukee**—City will reconstruct 27th St. Viaduct by day labor. Bids will soon be received for furnishing 700,000 ft. lumber and timbers, 10 ton castings, 125 ton structural steel, 19,000 lb. bolts, nuts, washers and 8,950 sq.yd. creosoted blocks.

★**Ia., Corning** — Adams Co. let contract building forty concrete box culverts, 2 x 2 ft.—8 x 8 ft., one 20 x 24 ft. concrete slab bridge and one 20 x 90 ft. steel pony truss bridge, all on Federal Aid Project No. 26, involving 1,633 cu.yd. rein.-con., 87 tons steel and 178 lin.ft. wood piling, to Wicks Eng. & Constr. Co., Observatory Bldg., Des Moines. About, $70,000.

★**Oklahoma**—State Bd. Affairs, Oklahoma, let contract building 40 ft. span concrete bridge, over Cimarron River, in Woods Co., to Boardman Co., West Maple St., Oklahoma. About $138,000.

Streets and Roads

PROPOSED WORK

New Hampshire—State Highway Comn., Concord, rejected only bid received June 2, building 3.6 mi. gravel highway, Tuftonboro. About $40,000. F. E. Everett, comr. Noted June 24.

Mass., Northampton — City appropriated $86,000 bonds to improve Main, Leeds and Prospect Sts., asphalt and concrete.

R. I., Scituate (North Scituate P. O.)—Water Supply Bd., Providence, plans to build 1.75 mi. earth highway, here. About $75,000.

N. Y., Buffalo—City plans to repave 1,241 ft. Warwick Ave. from Grider St. to Wyoming Ave., 26 ft. wide, involving 3,604 sq.yd. asphalt, 2,402 lin.ft. Medina curbing, etc.; 1,802 ft. Hampshire St. from Niagara St. to Normal Ave., 30 wide, 5,695 sq.yd. asphalt, 1,588 lin.ft. Medina curbing, 1,080 sq.ft. concrete sidewalk, etc.; 281 ft. Spring St. from Genessee to Cherry Sts., 32 ft. wide, 1,009 sq.yd. asphalt, 365 lin.ft. Medina curbing, 246 sq.ft. concrete sidewalk, etc.; 494 ft. Ryan St., 26 ft. wide, 1,432 sq.yd. asphalt, 968 lin. ft. Medina curbing, 99 sq. ft. concrete sidewalk, etc.; 2,898 ft. 14th St. from Porter Ave. to Rhode Island St., 30 ft. wide, 6,790 sq.yd. asphalt, 2,795 lin.ft. Medina curbing, 1,600 sq.ft. concrete sidewalk, etc.; 6,360 ft. Howard St. from Jefferson to Babcock Sts., 28 ft. wide, 19,806 sq.yd. asphalt, 6,866 lin.ft. Medina curbing, 3,510 sq.ft. concrete sidewalk, etc.; 4,440 ft. Bailey Ave. from Bway. to Genesee St., 40 ft. wide, 19,746 sq.yd. asphalt, 1,259 lin. ft. Medina curbing, 1,514 sq.ft. concrete sidewalk, etc.; 895 ft. Dewitt St. from Forest Ave. to Fernwood Pl., 30 ft. wide, 2,988 sq.yd. asphalt, 870 lin.ft. Medina curbing, 450 sq.ft. concrete sidewalk, etc.; 928 ft. Franklin St., 32 ft. wide, 2,139 sq.yd. stone block, 1,166 sq.yd. asphalt, 1,836 lin.ft. Medina curbing, 560 sq.yd. concrete sidewalk, etc.; 622 ft. Maywood Pl. from Beyer to Seneca Sts., 24 ft. wide, 1,812 sq.yd. asphalt, 1,238 lin.ft. Medina curbing, etc.; 567 ft. Cypress St. from Michigan Ave. to Pine St., 30 ft. wide, 1,900 sq.yd. asphalt, 766 lin.ft. Medina curbing, 381 sq.ft. concrete sidewalk, etc.; 1,593 ft. Maryland St. from Niagara St. to Erie Canal, 30 and 42 ft. wide, 5,758 sq.yd. asphalt, 2,366 lin.ft. Medina curbing, 275 sq.ft. concrete sidewalk, etc. G. H. Norton, city engr.

Pa., Scranton—City passed ordinance to grade, pave and curb Saunders St., Pittston and Birney Aves., sheet asphalt and stone block on concrete base. About $106,226. W. P. Huester, clk.

Delaware—State Highway Dept., Dover, soon receives bids building 40 mi. road, 16 ft. wide, penetrated macadam and macadam with asphalt surface. C. M. Upham, ch. engr.

Md., Frederick—Comrs. Frederick Co. plan to improve 5 mi. road between Wolfsville and Myersville.

W. Va., Lewisburg—Greenbrier Co. rejected bids received June 1, grading and paving 2 mi. James River and Kanawha Turnpike, vitr. brick. Noted May 27.

W. Va., Middlebourne—Tyler Co. rejected bids received June 14, concrete surfacing 1.2 mi. Middlebourne-Salem Pike, 16 ft. wide, Federal Aid Project 55. Noted May 27.

N. C., Winston-Salem—Forsyth Co. plans to build 6 mi. Styers Ferry Rd. About $30,000.

S. C., Columbia—Richland Co. plans to hard surface Two Notch Rd. About $450,000. J. R. Pennell, co. engr.

Tenn., Lexington — Henderson Co. voted $350,000 bonds to build roads.

O., Dayton—Montgomery Co. plans to pave 1.2 mi. Bessie Little Rd. from corporation line to Troy Pike, 20 ft. wide, involving 13,500 sq.yd. vitr. brick or concrete. About $65,000. P. S. Bookwalter, co. surv.

Mich., Detroit—City will prepare plans and estimates for grading and paving with 1 course concrete with 2 x 6 in. plank retainers along sides, Medina stone headers, etc., alley between Antoine, Hastings, Palmer and Hendrie Sts.; alley between Belleview, Concord, Lafayette and St. Paul Sts., alley between Belvidere, Pennsylvania, Mack and Sylvester Aves.; alley between Beechwood, Grand River, Linsdale and Edmonton Aves.; alley between Byron, Hamilton, Edison and Longfellow Aves.; alley between Concord, Canton, Waterloo and Charlevoix Aves.; alley between Coplin, Freud and Jefferson Ave. and Piper Blvd., alley between Chene, Jos. Campean, Catherine and Mullett Aves.; alley between Dubois, Chene, Hancock and Warren Aves., alley between Elmwood, Ellery, Benson and Heidelberg Aves.; alley between 18th, 17th, Howard and Porter Sts.; alley between 14th, Wabash, Forest and Hancock Sts., alley between 14th and 12th Sts., Virginia Park and Euclid Ave.; alley between 14th St., Wabash, Marquette and Ferry Park Aves.; alley between Goodwin, Cameron, Owen and Westminster Aves.; alley between Green, Beard and Fort Sts. and Lafayette Blvd.; alley between Garland, St. Clair, Mack and Canfield Aves. C. W. Hubbell, city engr.

Mich., Detroit—Dept. Pub. Wks. receives bids about July 8, grading, shaping and paving with sheet asphalt on 8 in. concrete foundation, Amherst or Medina curb stone, Philip Ave. from Kercheval to Mack Aves., cost $63,220; Gray Ave. from Kercheval to Charlevoix Aves., $34,850; Oakdale Ave. from Mandale to Woodmere Aves., $38,920; Chalmers Ave. from Charlevoix to Mack Aves., $31,260; Conger Ave. from Baldwin to Maxwell Aves., $30,420; Caroline Ave. from 12th St. to Vermont Ave., $8,220, all 26 ft. wide; grading and paving with 1 course concrete, 2 x 6 in. retaining plank sides, stone headers, etc., alley between Duboise St., Kirby and Ferry Aves., 17 ft. wide, $2,880; alley between Coplin, Freud and Jefferson Aves. and Piper Blvd., 18 ft. wide, $8,420; alley between Northfield, Ironwood, Vancouver and Ivanhoe Aves., 18 ft. wide, $8,390; alley between Hanover, Dunedin and Lothrop Sts. and La Salle Gardens, S., 20 ft. wide, $7,520. C. W. Hubbell, city engr.

Ia., Osceola—City rejected bids received June 10, improving various streets. W. W. Temple, city clk. E. T. Archer, New England Bldg., Kansas City, Mo., engrs. Noted June 3.

South Dakota—State Highway Comn., Pierre, will receive bids in 1 or 2 months, grading and draining 16.45 mi. Mound City, Leola-Ipswich Highway, 36 ft. wide, McPherson Co., involving 74,000 cu.yd. excav., 650 lin.ft. concrete for corrugated culverts, 650 cu.yd. concrete and 49,000 lb. steel reinforcing for culverts. About $79,300. F. S. Peck, state highway engr.

South Dakota—State Highway Comn., Pierre, received no bids April 9, graveling, grading and draining 10.88 mi. Redfield-Watertown Rd., 24 ft. wide, Federal Aid Project 34, Spink Co. F. S. Peck, state highway engr. Noted Mar. 25.

Missouri—State Highway Dept., Jefferson City, plans to build 15.86 mi. Rolla-Houston Rd., 24 ft. wide, Federal Aid Project 119, Phelps Co., involving 1,000 cu.yd. rock and 63,000 cu.yd. earth excav., 3 acres clearing and grubbing, 22,017 sq.yd. 4 in. gravel surfacing, 1,000 sq.yd. broken stone base course, 62,000 sq.yd. 9 in. gravel surfacing, 200 lin.ft. stone underdrain, 350 cu.yd. rip rap, one 80 ft. span rein.-con. bridge, 10 corrugated iron pipe, 4 rein.-con. culverts and 11 extensions to culverts; 7.45 mi. East and West Rd., 24 ft. wide, Federal Aid Project 116, Grundy Co., 150,000 cu.yd. earth excav., 3% rock, 5,000 lin.ft. guard rail, one 250 ft. and two 100 ft. bridges with one 500 ft., two 50 ft., and one 100 ft. concrete pile trestles, 17 corrugated iron pipe and 2 rein.-con. culverts, extensions to 2 rein.-con. culverts; 8 mi. Springfield-Monett Rd. (Buck Prairie Special Rd. Dist.), 24 ft. wide, Federal Aid Project 114, Lawrence Co., 10,152 cu.yd. earth excav., 25,000 lin.ft. grading, 28,000 sq.yd. 5 in. gravel or chat surfacing, 16 ft. wide, 1 rein.-con. bridge having 2 spans and 7 culverts; 3.6 mi. Southern Highway (Smithton Special Rd. Dist.), 24 ft. wide, Federal Aid Project 113, Pettis Co., 8,152 cu.yd. earth excav., 15,957 sq.yd. 2 course gravel surfacing, 17,836 sq.yd. gravel resurfacing and 10 rein.-con. culverts; 8.3 mi. Sedalia-Springfield Rd. (Urbana Special Rd. Dist.), 24 ft. wide, Federal Aid Project 112, Dallas Co., 12,250 cu.yd. rock and 17,230 cu.yd.

Streets and Roads (Continued)

earth excav., 44,100 sq.yd. 10 in. gravel surfacing, 9 ft. wide, and 25 culverts; 16.3 mi. Sedalia-Springfield Rd., 24 ft. wide, Federal Aid Project 115, Dallas Co., 850 cu.yd. rock and 13,382 cu.yd. earth excav., 7,150 lin.ft. grading, 86,050 sq.yd. gravel surfacing, one 30 ft. span rein.-con. bridge and 15 rein.-con. culverts; 6.48 mi. Clinton-Osceola Rd., 24 ft. wide, Federal Aid Project 117, Henry Co., 24,000 cu.yd. earth excav., 60,800 sq.yd. Joplin chats surfacing, one 60 ft. span rein.-con. bridge, 9 rein.-con. culverts, one I beam bridge and 16 ft. span extension to one I beam bridge; 10.7 mi. Ava-Gainesville-West Plaines Rd., 24 ft. wide, Federal Aid Project 111, Ozark Co., 99,588 cu.yd. earth and 3,000 cu.yd. rock, excav., 43,384 sq.yd. gravel surfacing, 262.5 cu.yd. cement concrete, 600 cu.yd. cement rubble masonry, one 30 ft. span rein.-con. and one 100 ft. steel span bridges, 53 corrugated iron and 19 rein.-con. culverts.

Missouri—State Highway Dept., Jefferson City, plans to build 4.75 mi. Sedalia-Marshall Rd. (Sedalia 12 mi. Special Rd. Dist.), 24 ft. wide, Federal Aid Project 122, Pettis Co., involving 15,000 cu.yd. earth excav., 34,675 sq.yd. macadam resurfacing, 1,000 cu.yd. stone for base course and 6 rein.-con. culverts; 22.2 mi. Jefferson Highway (Jefferson Highway Special Rd. Dist.), 24 ft. wide, Federal Aid Project 130, Harrison Co., 24,500 cu.yd. excav., 2 per cent rock, 109 culverts, 5,000 lin.ft. guard rail, 5,000 lin.ft. underdrain and one 150 ft. steel span bridge with two 25 ft. concrete slab approaches; 31 mi. Piedmont-Marble Hill Rd., 24 ft. wide, Federal Aid Project 129, Wayne Co., 131,500 cu.yd. excav., 5 per cent rock, 68,640 sq.yd. 5-in. gravel surfacing, one 100 ft. and one 60 ft. steel bridges; 8 mi. Clinton-Warrensburg Rd. (Special Rd. Dist. 1 of Shawnee Twp.), 24 ft. wide, Federal Aid Project 128, Henry Co., 40,000 cu.yd. earth excav., 2½ per cent rock, 1,000 cu.yd. rock excav., 10 rein.-con. culverts and extensions to 12 culverts; 6.6 Clinton-Warrensburg Rd. (Special Rd. Dist. 1 of Fields Creek Twp.), 24 ft. wide, Federal Aid Project 127, Henry Co., 20,000 cu.yd. excav., 1 per cent rock, 61,952 sq.yd. joplin chats surfacing, 200 cu.yd. rock excav., 23 rein.-con. culverts, extension to 1 culvert and one 30 ft. and one 20 ft. rein.-con. bridges; 8.88 mi. Gallatin-Jamesport Rd. (Gallatin-Jamesport Special Rd. Dist.), 24 ft. wide, Federal Aid Project 125, Daviess Co., 81,265 cu.yd. earth excav., 1,900 lin.ft. wooden guard rail, 800 lin.ft. drainage ditch, culverts and 4 bridges; 9.9 mi. Monett-Neosho Rd. (Monett Special Rd. Dist.), 24 ft. wide, Federal Aid Project 121, Barry Co., 1,000 cu.yd. rock and 41,000 cu.yd. earth excav., 51,744 sq.yd. waterbound macadam, 96 lin.ft. 18-24 in. vitr. pipe, and 44 rein.-con. culverts; 5.5 mi. Cassville Rd. (Flatcreek Twp. Special Rd. Dist.), 24 ft. wide, Federal Aid Project 124, Barry Co., 16,500 cu.yd. earth excav., 51,380 sq.yd. gravel surfacing, three 20 x 18. ft. rein.-con. bridges and 14 culverts; .514 mi. St. Joseph-Savannah Rd., 24 ft. wide, Federal Aid Project 123, Andrew Co., 1,200 cu.yd. rock excav., 5,400 sq.yd. bituminous macadam resurfacing and widening 1 bridge; 3.5 mi. Cairo-Poplar Bluff Rd., 24 ft. wide, Federal Aid Project 120, New Madrid Co., 10,500 cu.yd. earth excav., 32,854 sq.yd. novaculite surfacing, three 40 ft. rein.-con. and one 50 ft. steel bridges; 18.75 mi. Iberia-Eldon and Springfield-Jefferson City Rds. (Osage Valley Special Rd. Dist.), 24 ft. wide, Miller Co., 67,200 cu.yd. excav., 3 per cent rock, 1,344 cu.yd. rock excav., 175,810 sq.yd. gravel surfacing, one 138 ft., one 30 ft., one 22 ft. and three 20 ft. rein.-con. bridges and 90 culverts; 15 mi. Essex-Sikeston Rd., 24 ft. wide, Federal Aid Project 118, Stoddard Co., 45,000 cu.yd. earth excav., 79,200 sq.yd. gravel surfacing, one 36 ft. rein.-con. bridge and 13 rein.-con. culverts.

Tex., Dallas—Property owners of Highland Park plan to pave all streets. About $500,000. H. R. Davis, Highland Park, mayor.

Tex., Midland—Midland Co. voted $125,000 bonds to build Highway 1. Total cost, $242,000. State Highway Dept. recently granted $117,000 Federal Aid funds to help finance above project. J. W. DeArmond, co. judge.

Okla., Mangum—Bd. City Comrs. having plans prepared paving Dist. 2. About $75,000. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs.

Utah, Provo—City plans to pave 9,000 ft. Center St. from 5th West to 12th West Sts., 12 ft. wide, 7 in. concrete. About $35,000. C. A. Swan, Provo, engr.

Cal., San Luis Obispo—Bd. Supervs. San Luis Obispo Co., rejected bids grading, draining and paving Sect. A, Santa Margarita-Poso Rd., 4 in. concrete. Work will be readvertised. About $113,392. N. G. Burch, co. engr.

Que., St. Michel—City voted $300,000 bonds to pave and build sidewalks. J. E. C. Daoust, 2326 Park Ave., Montreal, engr.

Ontario—Provincial Government, Toronto, having plans prepared and soon receives bids building 6 mi. concrete sidewalks on Atlas, Barrie, Cedarvale, Delaware, Eastdale, Eglington, Lauder and Oakwood Aves., Burton and Pinewood Rds. and Doncliffe Drive, York Twp. About $39,000. F. Barber, 40 Jarvis St., Toronto, engr.

Ont., Hamilton—City plans to pave 2 mi. various streets, involving 3,000 sq.yd vitr. brick and 40,000 sq.yd. asphalt on concrete base, 5,000 lin.ft. concrete sidewalks, etc. About $145,000. E. R. Gray, city engr.

Ont., Stratford—City plans to resurface 3 mi. various streets, involving 35,000 sq. yd. asphalt. About $58,000. A. B. Manson, City Hall, engr.

Ont., Toronto—City plans to widen ½ mi. Bloor St. E. from Yonge to Sherbourne Sts., 66-86 ft. wide. Cost between $300,000 and $400,000. R. C. Harris, city engr.

BIDS DESIRED

Massachusetts—Until July 6, by State Highway Comn., building 3,300 ft. state highway, Leicester, and 5,340 ft., East Brookfield, concrete.

N. Y., Carthage—Until July 6, by Bd. Trustees, improving various streets, involving 30,000 sq.ft. bituminous macadam and 18,000 lin.ft. combined curb and gutter. A. C. Brady, village clk.

N. Y., Glens Falls—Until July 7, by M. G. Mullen, city clk., paving various streets with concrete and Hillside Mack block; advertised in this issue.

N. Y., New York—Until July 6, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with 3 in. asphalt block on concrete foundation, roadway of East 97th St. from 2nd to 3rd Aves., Mt. Morris Park, W. from 120th to 124th Sts. and 124th St. from Mt. Morris Park W. to 5th Ave., 179th St. from Amsterdam Ave. to Bway., 182nd St. from Amsterdam Ave. to Bway., Dyckman St. from Bway. to Nagle Ave., with sheet asphalt on concrete foundation, Mt. Morris Park, W. from 120th to 124th Sts., 124th St. from Mt. Morris Park W. to 5th Ave., Dyckman St. from Bway. to Nagle Ave., with 3 in. asphaltic concrete on concrete foundation, East 97th St. from 2nd to 3rd Aves., Mt. Morris Park West from 120th to 124th Sts., 124th St. from Mt. Morris Park W. to 5th Ave., 179th St. from Amsterdam Ave. to Bway., 182nd St. from Amsterdam Ave. to Bway., Dyckman St. from Bway. to Nagle Ave.

N. Y., S. I., St. George—Until July 8, by C. D. Van Name, pres. Richmond Boro., furnishing and applying 23,000 gal. bituminous material on Southfield Blvd. between Hillside and Richmond Aves., 9,700 gal. on Morningstar Rd. between Richmond Ave. and Prospect St., 3,000 gal. on Division St. between Van Pelt and Simonson Aves., also furnishing and delivering 345 tons natural lake asphalt, 1,680 cu.yd. ¾ in. broken stone, 265 ton limestone dust, 325 cu.yd. cowbay sand, 300 cu.yd. 1½ in. broken stone, 125 cu.yd. screenings, 150 cu.yd. ¾ in. broken stone of trap rock, Dist. 1, 200 cu.yd. 1½ in. broken stone, 100 cu.yd. screenings, 75 cu.yd. ¾ in. broken stone of trap rock, Dist. 2, 350 cu.yd. grits, Dist. 1, 200 cu.yd., Dist. 2, 600 cu.yd. Dist. 3.

Maryland—Until July 7, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building 0.77 mi. state highway through town of Manchester, concrete. Carroll Co., Contr. CL-24. J. N. Mackall, chn.; advertised in this issue.

W. Va., Charleston—Until July 16, by F. A. McCrew, city clk., paving 31 blocks on various streets, 40 ft. wide, involving 18,000 sq.yd. brick, asphalt, concrete, asphaltic concrete or shell concrete, cost $140,000; tearing up brick and laying 2,200 sq.yd. sheet asphalt or wood block on Virginia St., 40 ft. wide, $18,000.

W. Va., Moundsville—Until July 20, by Marshall Co., grading, draining and hard surfacing 0.7 mi. Green Valley Rd., brick, concrete, Natl. pavement, asphalt, bituminous macadam, penetration method; also grading, building bridges and culverts on 3 mi. road from Cameron to Poplar Springs Cameron Dist. J. E. Chase, clk. Noted May 27.

North Carolina—Until July 9, by State Highway Comn., at div. office, Kingston, grading and surfacing 26.11 mi. North Carolina Federal Aid Project 81, Pender Co., including construction of necessary bridges. About $100,000. W. S. Fallis, Raleigh, engr.

North Carolina—Until July 7, by State Highway Comn., Asheville, grading and surfacing 5 mi. Transylvania-Franklin Rd., Swain Co. About $50,000. W. S. Fallis, Raleigh, engr.

North Carolina—Until July 7, by State Highway Comn., Asheville, grading, surfacing top soil road and building bridges on 5 mi. Federal Aid Project 97A, Macon Co., 10 mi. Federal Aid Project 78A, Rutherford Co., and 3.58 mi. Federal Aid Project 109, Burke Co. About $40,000, $50,000 and $25,000 respectively. W. S. Fallis, state highway engr.

S. C., Columbia—Until July 6, by F. C. Wyse, city engr., grading, curbing and draining North Main St. About $25,000. Noted June 10.

S. C., Kinkstree—Until July 7, by Comrs. Williamsburg Co., grading, surfacing sand clay road and building bridges on 8.5 mi. Federal Aid Project 80. About $50,000. J. M. Martin, co. engr. Noted April 15.

Fla., Okeechobee—Until July 19, by City Council, hard surfacing 10 mi. streets, also building waterworks and sewerage systems. D. R. McNeill, pres.; advertised in this issue.

La., Crowley—Until July 24, by Bd. Supervs. Acadia Parish Rd. Dist. 4, building 25 mi. of Divisions A, B, D, F and G, sand-clay-gravel. R. L. Doucet, secy.; advertised in this issue.

Tennessee—Until July 16, by State Highway Dept., Nashville, building 14.322 mi. State Highway 8, between Jamestown, Fentress Co. and Pickett Co. Line, involving 59,717 cu.yd. common excav., 16,816 cu.yd. solid rock excav., 9,418 cu.yd. borrow, 62,976 sq.yd. broken stone base course A, 62,976 sq.yd. waterbound macadam surface course, 14.76 cu.yd. special concrete, 209.19 cu.yd. Class "A" concrete, 112.83 cu.yd. Class "B" concrete, 29,816 lb. deformed steel bars, furnishing and placing 880 lin.ft., 15-24 in. c.m. pipe, 785 lin.ft. plain cement concrete curbing, 71,467 sq.yd. 6 in. telford base, 71,467 sq.yd. 4 in. waterbound macadam surface course, removing cleaning and relaying 2,116 lin.ft. 15-24 in. c.m. pipe, removing, cleaning, transporting and relaying 188 lin.ft. 15-24 in. c.m. pipe, 183.19 cu.yd. Class "B" concrete, pipe culvert, 44.05 cu.yd. Class "A" concrete, and 110 lin.ft. removing superstructures; 19.086 mi. State Highway 32, between Pulaski, Giles Co. and Alabama State Line, 72,696 cu.yd. common excav., 20,414 cu.yd. solid rock excav., 3,252 cu.yd. borrow, 5,333 sq.yd. reconstructed base course, 168,188 sq.yd. broken stone base course "A," 5,333 sq.yd. broken stone base course "B," 173,521 sq.yd. bituminous macadam penetration or rock asphalt surface course, 30.56 cu.yd. special concrete, 701.50 cu.yd. Class "A" concrete, 242.12 cu.yd. Class "B" concrete, 65,187 lb. deformed steel bars, furnishing and placing 1,116 lin. ft. 18-24 in. pipe, 10,168 cu.yd. overhaul, 70.84 cu.yd. Class "B" concrete pipe, 136 lin.ft. removing wooden bridge superstructure, also building bridges, involving 271 cu. yd. dry and 47 cu.yd. wet excav., 41.32 cu.yd. special concrete, 298.05 cu.yd. Class "A" and 541.61 cu.yd. Class "B" concrete, 64,962 lb. deformed steel bars, and 224 lin.ft. removing bridge structures; 14.51 mi. State Highway 2, between Bradley Co. Line and Athens, McMinn Co., 46,403 cu.yd. common excav., 95 cu.yd. solid rock excav., 8,548 cu.yd. borrow, 16.87 cu.yd. special concrete, 417.95 cu.yd. Class "A" concrete, 118.32 cu. yd. Class "B" concrete, 50,604 lb. deformed steel bars, furnishing and placing 1,080 lin. ft. 12-24 in. pipe, furnishing and placing 16 lin.ft. 30 in. c.m. pipe, 88 lin.ft. concrete pipe, 9,592 cu.yd. overhaul, removing, cleaning and relaying 274 lin.ft. concrete pipe, 72 lin.ft. 20 in. c.m. pipe, removing 543 lin.ft. 12-24 in. v.c. pipe, 107.84 cu.yd. Class "B" concrete, (pipe culvert), 74.03 cu.yd. Class "A" concrete, 28.46 cu.yd. Class "B" concrete, 136,193 sq.yd. broken stone base course "A" and 136,193 sq.yd. bituminous macadam penetration, or rock asphalt surface course or 136,193 sq.yd. cement concrete paveemnt.

Ohio—Until July 25, by State Highway Dept., Columbus, building 8 mi. of State Highway, including bridges and culverts, in Clinton Co. About $160,000.

O., Bucyrus—Until July 6, by Dir. Pub. Serv., improving Lane St. from Mary to Plymouth Sts., also East St. from Oakwood Ave. to Charlotte St., brick, asphalt, concrete and asphalt block. A. Broemel, clk.

O., Silver Lake (Cuyahoga Falls P. O.)—Until July 19, by E. A. Tewksbury, clk., grading, draining and paving Silver Lake Blvd., brick block. C. U. Courtney, 509 Leader News Bldg., Cleveland, engr.

Indiana—By Bd. Co. Comrs. building roads in following counties:

July 6, Whitley Co., Columbia City, 10,600 ft. Shafer Hufty Rd., Etna Twp., gravel; 15,820 ft. J. Lewis Rd., Smith Twp., gravel. W. K. Burwell, aud.

Harrison Co., Corydon, 17,638 ft. J. Alstot Rd., Jackson Twp., gravel; 12,859 ft. H. N. Fessel Rd., Morgan Twp., stone. S. C. Mauck, aud.

Streets and Roads (Continued)

Rush Co., Rushville, 9,149 ft. W. M. Powell et al Rd., Jackson Twp., gravel; 10,185 ft. W. T. Moon et al Rd., Richland Twp., macadam. W. M. McMillan, aud.

Howard Co., Kokomo, 2,650 ft. H. P. Brubaker et al Rd., Honey Creek Twp., concrete; 2,325 ft. C. W. Cramer et al Rd., Liberty Twp., stone; 11,000 ft. W. N. Turner et al Rd., Howard Twp., gravel. W. L. Benson, aud.

Hancock Co., Greenfield, 13,360 ft. J. Briney Rd., Center Twp., gravel; 14,600 ft. W. F. Kleiman Rd., Buck Creek Twp., gravel. E. A. Cooper, aud.

July 7, Bartholomew Co., Columbus, 4,045 ft. Narsom Rd., Sandcreek Twp., gravel; 2½ mi. Foerster Rd., Columbus, Ohio, Wayne and Harrison Twps., gravel; 13,503 ft. Stewart Rd., Rockcreek and Sandcreek Twps., stone. R. Henderson, aud.

Shelby Co., Shelbyville, 2,693 ft. Joshua Alley, concrete, also 4,586 ft. Edward Peek Rd., Liberty Twp., crushed stone; 13,486 ft. W. H. Swinford Rd., Washington Twp., gravel; 9,365 ft. G. Firsich Rd., Shelby Twp.; 6,275 ft. M. Fair Rd., Union Twp., gravel; 6,714 ft. T. H. Grafton Rd., Noble Twp., crushed stone.

DeKalb Co., Auburn, 12,320 ft. G. W. Ditmers et al Rd. and 61,040 ft. Auburn-Newville Rd., Jackson Twp., gravel. S. D. Johnston, aud.

Whitley Co., Columbia City, 12,860 ft. Austin Hively Rd. 1, Thorncreek Twp., gravel. W. K. Burwell, aud.

July 8, Vanderburgh Co., Evansville, Lombard and Pollock Aves. and Stockwell Station Roads, Knight Twp.; P. J. Eichoff et al Rd., Perry Twp. W. Copeland, aud.

Illinois—Until July 7, by Dept. Pub. Wks. & Bldgs., Springfield, building various sections Vandalia-Cairo Highway, as follows, 0.94 mi. Sect. 24A and 1.26 mi. Sect. 25A, Fayette Co., involving 41,200 cu.yd. excav.; 0.79 mi. Sect. 26A, 1.52 mi. Sect. 27A, 0.53 mi. Sect. 28A, 0.61 mi. Sect. 29A, Marion Co., 71,940 cu.yd. excav.; 2.39 mi. Sect. 32A and 1.16 mi. Sect. 33A, Washington Co., 29,880 cu.yd. excav.; 0.75 mi. Sect. 30A, Marion and Washington Counties, 8,400 cu.yd. excav.

Illinois—Until July 7, by Dept. Pub. Wks. and Bldgs., Springfield, building 3,000 ft. concrete road, 16 ft. wide, Mason Co., cost, $13,091, 3,226 ft., 10 ft. wide, Lawrence Co., $9,854, 4,000 ft., 16 ft. wide, Shelby Co., $20,002, 4,400 ft., 10 ft. wide, Ford Co., $13,195, 4,150 ft. earth road, 26 ft. wide, Jo Daviess Co., $7,285; 3 concrete bridges, Fulton Co., $3,390.

Wisconsin—Until July 6, by State Highway Comn., at Div. Office 8, Spooner, grading and paving 5.98 mi. Hurley-Ashland Rd., Federal Aid Project 178, Ashland Co., involving 8.63 acres clearing, 6.52 acres grubbing, 23,281 cu.yd. earth and 3,418 cu. yd. borrow excav., 306.6 cu.yd. Class "A" concrete, 13,556 sq.yd. sand-clay surfacing, etc.

Wisconsin—Until July 8, by State Highway Comn., at Div. Office 5, Court House, La Crosse, improving 3.76 mi. Sparta-Black River Falls Rd., Federal Aid Project 105, Monroe Co., involving 14,469 cu.yd. earth and 219 cu.yd. borrow excav., 112.5 cu.yd. Class "A" concrete, 35,622 sq.yd. shale surfacing, etc.; 7.19 mi. Whitehall-Ettrick Rd., Federal Aid Project 120, Trempealeau Co., 4 acres clearing and grubbing, 32,096 cu. yd. earth, 2,850 cu.yd. rock and 4,572 cu. yd. borrow excav., 661 cu.yd. Class "A" concrete for culverts and 108.5 cu.yd. concrete for bridges, 2,776 lin.ft. piling, 67,766 sq.yd. gravel surfacing, etc.

Wisconsin—Until July 9, by State Highway Comn., at Div. Office 7, Court House, Rhinelander, grading and paving Crandon-Laona Rd., Federal Aid Project 155, Forest Co, involving 13.3 acres clearing and grubbing, 14,345 cu.yd. earth and 35 cu.yd. borrow excav., 95.3 cu.yd. Class "A" concrete, 44,868 sq.yd. feather edge gravel surfacing, etc.; 4.47 mi. Pelican-Crandon Rd., Federal Aid Project 73, 4.82 acres clearing and grubbing, 13,167 cu.yd. earth excav., 80.5 cu.yd. Class "A" concrete, 62,823 sq.yd. feather edge gravel surfacing, etc. Noted May 20.

Wisconsin—Until July 6, by State Highway Comn., at Div. Office 4, Citizens Natl. Bank Bldg., Grand Rapids, improving 5.28 mi. Federal Aid Project 134, Necedah Rd., Juneau Co., involving 3.7 acres clearing, 3.91 acres clearing and grubbing, 16,810 cu.yd. earth and 235 cu.yd. borrow excav., 193.7 cu.yd. Class "A" concrete, 49,568 sq. yd. 16 ft. top soil surfacing, etc., also one 45 ft. concrete deck girder span bridge.

Wisconsin—Until July 6, by State Highway Dept., at div. office No. 8, Spooner, grading and paving 2.19 mi. Amery-Balsam Lake Rd., Federal Aid Project 124, Polk Co., involving 1.54 acres clearing and grubbing, 24,280 cu.yd. earth and 6,769 cu.yd. borrow excav., 71.1 cu.yd. Class "A" concrete in culverts, also building 120 ft. span plate girder bridge, involving 78,800 lb. structural steel, 79.8 cu.yd. Class "A" and 47 cu.yd. Class "E" concrete.

Ia., Clarion—Until July 8, by Bd. Supervs. Wright Co., gravel surfacing 13.75 mi. roads. J. K. Hilton, co. engr.; advertised in this issue.

Minn., Brainerd—Until July 12, by C. W. Mahlum, aud. Crow Wing Co., clearing and grubbing 12.3 mi. Co. Job 1908, State Rd. 1, 24 ft. wide, $60,000; 3 mi. Job 2004, State Rd. 3, 24 ft. wide, involving 33,840 cu.yd. excav., 5,480 cu.yd. overhaul, 650 cu.yd. hand ditch, 992 lin.ft. 12-18-24 in. portable culverts, 150 mi. haul $27,000; 4.5 mi. Job 1910, State Rd. 8, 24 ft. wide, 33 acres clearing and grubbing, 67,529 cu.yd. excav., 9,770 cu.yd. overhaul, 1,192 lin.ft. 12-15-18-24 in. portable culverts, 1,066 ton mi. culvert haul, $32,000. C. L. Mott, Brainerd, engr. Noted June 24.

Minn., Caledonia—Until July 7, by E. N. Newhouse, aud. Houston Co., grading and graveling 2 mi. Federal Aid Project 147, 24 ft. wide. About $27,000. C. D. Conzett, Caledonia, engr. Noted May 27.

Minn., Redwood Falls—Until July 13, by Auditor Redwood Co., graveling 10 mi. Federal Aid Project 13, 24 ft. wide, and 6½ mi. Federal Aid Project 139, 24 ft. wide. About $45,000 and $27,000 respectively. J. A. Myron, Redwood Falls, engr. Noted Jan. 15.

Kan., Ft. Scott—Until July 13, by Bourbon Co., improving 34,494 ft. Ft Scott-Pittsburgh Rd., Project 6, Sect. A, 24 ft. wide; 5,366 ft. Hammond Branch Rd., Project 13, including culverts, etc.; 9,113 ft. Garland Branch Rd., 24 ft. wide; 19,221 ft. Kansas City Rd., Project 5, Sect. B, 16 ft. wide. B. Boyle, co. engr. Noted Apr. 29.

Mo., Monticello—Until July 9, by Lewis Co., building 5.8 mi. Canton-Monticello Rd., 24 ft. wide, Federal Aid Project 60, involving 30,596 cu.yd. earth and 640 cu.yd. rock excav., 3,302 cu.yd. borrow, 700 cu.yd. per 100 ft. overhaul, 54,703 sq.yd. gravel surface course on plain macadam base, 1.5 cu.yd. Class "A," 212.2 cu.yd. Class "B" and 82.7 cu.yd. Class "C" concrete masonry, 21,083 lb. reinforcement for concrete masonry, 1,115 lin.ft. 12 in. vitr. clay pipe culvert, etc., cost $80,580; 4.28 mi. La Belle-Monticello Rd. (Lewistown Special Rd. Dist), 24 ft. wide, Federal Aid Project 68, 15,602 cu.yd. earth and 50 cu.yd. rock excav., 1,787 cu.yd. borrow, 1,000 cu.yd. per 100 ft. overhaul, 40,182 sq.yd. gravel surface course on plain macadam base, 68.3 cu.yd. Class "B" and 3.4 cu.yd. Class "C" concrete masonry, 5,692 lb. reinforcement for concrete masonry, 93 lin.ft. 12-18 in. vitr. clay pipe culverts, etc., $42,636; 8.37 mi. Red Ball Route (Canton Special Rd. Dist.), 24 ft. wide, Federal Aid Project 38, 35,638 cu.yd. earth and 360 cu.yd. rock excav., 18,060 cu.yd. borrow, 9,101 cu.yd. per 100 ft. overhaul, 79,491 sq.yd. Spec. "B" gravel pavement, 295.8 cu.yd. Class "E" and 51.6 cu.yd. Class "C" concrete masonry, 23,731 lb. reinforcement for concrete masonry, 234 lin.ft. 12-36 in. vitr. clay pipe culvert, etc., $85,828.

Tex., Austin—Until July 5, by D. J. Pickel, judge Travis Co., grading, gravel surfacing and draining 3 mi. Austin-Oak Hill Rd., 16 ft. wide, involving 3,987 cu.yd. earth excav., 27,982 sq.yd. bituminous macadam, 221 cu.yd. concrete, 8,785 lb. steel, etc. About $26,665. Separate bids will be received on bituminous topping. H. W. Nolen, 511 Scarbrough Bldg., engr. Noted June 17.

Tex., Austin—Until July 5, by D. J. Pickle, judge Travis Co., grading, surfacing and draining 3.1 mi. Austin-Georgetown Rd., 16 ft. wide, involving 5,584 cu.yd. gravel and bituminous topping, 5,110 cu.yd. earth excav., 28,700 sq.yd. bituminous macadam, 92 cu.yd. concrete, 6,263 lb. reinforcing steel, etc. About $47,564. Separate bids will be received on bituminous topping. H. W. Nolan, 511 Scarbrough Bldg., engr.

Washington—Until July 12, by State Highway Comn., Olympia, clearing, grading, draining and surfacing with gravel, 1.24 mi. State Rd. 5, Lewis Co., grading, draining and paving with concrete 1 mi. Pacific Highway from Silvana north, Post Rd. 61, Snohomish Co., 1.71 mi. Olympic Highway, from Elma east, Grays Harbor Co.

Que., Montreal—Until July 5, by city, building 3 mi. permanent pavement on Laurier, Boyer and Westhill Sts., 25 ft. wide. A. E. Doucet, city engr.

Ontario—Until July 6, by W. A. McLean, deputy minister of highways, Parliament Bldgs., improving 10 mi. of provincial highways, 20 ft. wide, in Cramahe (Contr. 91) and Tyendinaga Twps. (Contr. 92), involving 40,000 cu.yd. earth excav. About $30,000. G. Hogarth, Parliament Bldgs., Ottawa, engr.

Ontario—Until July 14, by Dept. of Highways, Toronto, building 12 mi. Provincial Highway between Ottawa and Manotick, Nepean Twp. About $30

Ont., York—York Twp. receiving bids building 10 mi. granolithic cement walks, also ½ mi. Tarvia pavement. About $50,000. F. Barber, 40 Jarvis St., Toronto, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Massachusetts—State Highway Comn., Boston, received bids June 22, building 7,200 ft. highway, 80 ft. wide, Dudley-Spencer, C. Bianchi Co., $61,638, Lowney & Tonkin, $64,574, D. Stephano Bros. Co., $66,117; state road, Ayer, from Hanscom Constr. Co., $41,465, D. Orifro Bros., Leominster, $46,485, Smith & Leonard Constr. Co., 530 Tremont Bldg., Boston, $47,150.

★**Mass., Attleboro**—P. E. Brady, mayor, let contract paving Pleasant St., involving 2,000 ton broken stone, 9,000 sq.yd. bituminous concrete surfacing, 425 cu.yd. screened gravel, etc., South Main St., 1,400 ton broken stone, 10,000 sq.yd. bituminous concrete surfacing, 1,200 lin.ft. concrete guttering, etc., County St., 1,300 ton broken stone, 11,200 sq.yd. bituminous concrete surfacing, etc., to R. H. Newell Co., Fall River, $76,004. Noted June 3.

★**Mass., Boston**—City let contract laying bituminous pavement on Fens St. and Jamaicaway, to Warren Bros., 142 Berkeley St., $28,684 and $29,291 respectively. Noted June 17.

★**Mass., Boston**—City let contract paving Belgrade Ave., Beach and Center Sts., to Topeka, to Rowe Constr. Co., 45 Milk St., $303,398. Noted June 17.

★**N. Y., Brooklyn**—Park Bd., at office of Dept. Parks, Municipal Bldg., New York City, let contract furnishing labor and material improving Ocean Parkway Traffic Rd., here, to Brooklyn Alcatraz Co., 167 Hamilton Ave., $99,788. Noted June 24.

★**N. Y., Long Island City**—M. E. Connolly, pres. Queens Boro., let contract regulating and grading roadway of Jackson Ave., also regulating and repaving outside railroad franchise area, etc., to Sicilian Asphalt Paving Co., 41 Park Row, New York City, $195,838 and $198,838 respectively. Noted June 24.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract repairing and restoring wood block and granite block pavements and foundation in railroad area to Casner Helbroock Co., $78,540. Noted June 24.

★**N. Y., S. I., St. George**—C. D. Van Name, pres. Richmond Boro., let contract repairing with wood block pavement roadway of Richmond Ave. from Richmond Terrace to south property line, and Richmond Terrace from York Ave. to Sailors' Snug Harbor Dock, to J. Johnson Sons, West New Brighton, $31,182 and $26,720 respectively. Noted June 24.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received bids June 24, repaving roadway of Rockland Ave. from Forest Hills Rd. to point 1,100 ft. west of Manor Rd., from J. Johnson Sons, $41,334; J. E. Donovan, 2205 Richmond Terrace, Port Richmond, $40,523; C. Vanderbilt, 24 Elizabeth St., West New Brighton, $41,254. Noted June 17.

Pa., Pittsburgh—City received bids June 21, improving 2nd Ave. from Liberty to Grant Sts., from Booth & Flinn, Ltd., 1942 Forbes St., $148,226; J. H. McQuade & Sons Co., Bakewell Bldg., $156,979; T. Cronin Co., South 17th and Muriel Sts., $160,074; Whillpe St. from Goodman St. to city line, involving 9,002 cu.yd. grading, (b) 7,226 sq.yd. asphalt paving, (c) 3,675 lin.ft protected concrete curbing, (a) 266 lin.ft. protected concrete radius curbing, (e) 6 catchbasins, (f) 134 lin.ft. terra cotta pipe from M. O'Herron Co., South 1st and McKean Sts., (a) $1.25, (b) $3.66, (c) $1.25, (d) $1.50, (e) $150 each, (f) $4.50, total $44,383; T. Cronin Co., South 17th and Muriel Sts., (a) $1.25, (b) $3.60, (c) $1.50, (d) $2, (e) $100, (f) $5, $44,803; Booth & Flinn, Ltd., 1942 Forbes St., (a) $1, (b) $4.05, (c) $130, (d) $1.50, (e) $125, (f) $4, $44,922. Noted June 17.

★**Md., Frederick**—Comrs. Frederick Co. let contract building 2 mi. concrete road from Middletown toward Harmony, to M. J. Grove Lime Co., Limekiln, Md., $60,541.

★**W. Va., Beckley**—Raleigh Co. let contract grading Eccles-Surveyor Rd., involving 44,555 cu.yd. earth excav., 673 cu.yd. mass concrete, 5,960 lb. reinforcing steel, 389 ft. 15 in. and 445 ft. 18 in. vitr. clay pipe and 479 rubble masonry, to Higgins & Co., Charleston, $63,733.

★**W. Va., Middlebourne**—Tyler Co. let contract grading 4 mi. Sisterville-Friendly

Streets and Roads (Continued)

Rd., 16 ft. wide, to W. F. Allen & Co., Clarksburg. About $38,000. Noted May 27.

★**W. Va., Winfield**—Putnam Co. let contract building 4 mi. asphalt and bituminous macadam road from Cabell Co. line to Beyond Hurricane, to Clifford Eng. Co., Maine St., Farmingdale, N. J., $97,563.

★**S. C., Bishopville**—City let contract paving various streets and sidewalks, to Powell Contg. & Constr. Co., Columbia. About $105,000.

★**S. C., Florence**—Florence Co. let contract grading, surfacing and draining 5.982 mi. Florence-Sumter Rd., 16 ft. wide, 1 course concrete, involving 22,924 cu.yd. dry earth excav., to Slattery & Henry, Greensville. $200,257.

Ohio—State Highway Dept., Columbus, received bids June 18, building roads in following counties:

Ashland Co., grading, constructing bridges and culverts and paving with monolithic brick, 3.781 mi. Sect. B, Ashand-Wooster Rd., from Foster-Haffner Constr. Co., Dayton. $175,598.

Coshocton Co., grading, constructing bridges and culverts and paving with monolithic brick, 2.474 mi. Sect. E, Newcomerstown-Coshocton Rd., from T. J. Norman & Son, West Lafayette. $122,854.

Erie Co., grading, constructing drainage structures and paving with plain concrete, 3.051 mi. Sect. A., Lima-Sandusky Rd., from E. F. Hoffman, Castalia. $124,217.

Franklin Co., (a) grading, constructing drainage structures and paving on same .84 mi. Sect. 2., Natl. Rd., (b) paving between interurban tracks on same from Billiter & Connell, West Jefferson. (a) brick, $100,865; Franklin Asphalt Paving Co., Columbus, (a) sheet asphalt, $130,972, (b) $22,254.

Gallia Co., grading, constructing bridges and culverts and paving with bituminous macadam, 6.248 mi. Sect. F-2 and G, Jackson-Gallipolis Rd., from Miller Bros., Gallipolis. $179,219.

Guernsey Co., grading, building drainage structures and paving with brick on sandstone base, .54 mi. "Village of Fairview" Natl. Rd., from C. E. Wilson, Barnesville, $22,228.

Sandusky Co., grading, constructing drainage structures and paving with brick, 6.542 mi. Sect. L Fremont-Perrysburg Rd., from Modern Constr. Co., Fremont. $425,512. (bituminous concrete) $413,819.

Union Co., grading constructing bridges and paving with bituminous macadam, 2.888 mi. Sect. D, Columbus-Marysville Rd., from T. D. Vancamp, Cincinnati. $84,720; J. C. McCann, 262 Midland Ave., Columbus, $89,870.

Wayne Co., grading, constructing bridges and culverts and paving with monolithic brick, 4.08 mi. Sect. F, Cleveland-Wooster Rd., from Lee, Griggs & Anderson, Millersburg, $167,630 Smith Constr. Co., Youngstown, (bituminous macadam) $151,418. Noted May 27 and June 3.

O., Cleveland—City received bids grading, draining, curbing, paving and repaving (a) Superior Ave. from East 12th to East 21st Sts., (b) Superior Ave. from East 21st to East 27th Sts., (c) East 21st St. from St. Clair to Payne Aves., (d) Aetna Rd. from East 78th to East 82nd Sts., involving 22,400 sq.ft. brick block, 335,800 sq.ft. granite block, 33,135 sq.yd. wood block, 18,850 cu. yd. grading, 349,000 sq.ft. 4 and 8 in. concrete base, 12,850 ft. stone curbing and 13,980 ft. French tile drain guttering, (e) West 88th St. from Denison to Almira Aves., (f) Fidelity Ave., from West 105th St. to West Blvd., (g) Vineyard Ave. from Warner Rd. to city limits, (h) Jeffries Ave. from Warner Rd. to city limits, 1,822 sq.yd. asphalt, 93,050 sq.ft. brick block, 5,040 cu.yd. grading, 93,050 sq.ft. 4 in. concrete base, 7,150 ft. stone curbing and 7,150 ft. French tile drain guttering, (i) Beck Ave. from East 40th to East 44th Sts., (j) Oakwood Ave. from East 71st to East 72nd Sts., (k) Pittsburgh Ave. from Bway. to East 27th St., 7,740 sq.ft. brick block, 28,000 sq.ft. granite block, 1,590 yd. grading, 29,740 sq.ft. 4 in. concrete base, 980 ft. stone curbing and 2,960 ft. French tile drain guttering, from Riley Bros., The Arcade, (a) $181,698, (b) $159,386, (c) $41,084, (d) $23,951, (e) $21,031, (f) $17,323, (g) $26,365, (h) $29,230, (i) $4,853, (j) $7,930; Bentley Bros., 1836 Euclid Ave., (a) $182,784, (c) $40,528, (k) $18,960; Enterprise Paving & Constr. Co., 8440 Bway., (a) $184,940, (b) $159,799, (d) $24,388, (g) $25,418, (h) $28,163; Burnett & Hathaway, c/o Pavers' Exch., (b) $162,472, (c) $40,143, (k) $20,836; A. J. Pejsa, East 93rd St., (d) $23,830, (g) $26,099, (h) $28,911, (i) $4,759, (j) $7,890, (k) $21,091; Roehl Bros., West 25th St. and Clark Ave., (e) $19,311, (f) $16,972; Cleveland-Trinidad Paving Co., The Arcade, (f) $16,972.

★**O., Hamilton**—Butler Co. let contract resurfacing 4.5 mi. Darrtown Pike, 20 ft. wide, asphalt, to Andrews Asphalt Paving Co., 7 Rentschler Bldg. About $65,000.

★**O., Kenton**—City let contract paving 1,500 ft. Cherry St., 30 ft. wide, asphaltic concrete, to H. P. Streicher Co., 319 Terminal Bldg. About $37,500.

★**Ind., Indianapolis**—City let contract paving 2,609 ft. Guilford Ave. from 42nd to 46th St., 24 ft. wide, bituminous concrete, to J. N. Morgan & Son, at $5.95 per lin.ft., total $30,901; grading and paving 3,349 ft. Blue Ridge Rd. from Illinois St. to Boulevard Pl., 40 ft. wide, to Mansfield Eng. Co., 1011-14 Fletcher Savings & Trust Bldg., $32,081. Noted April 8.

★**Ind., Terre Haute**—Comrs. Vigo Co. let contracts to Carpenter Constr. Co. improving Dodd Rd., Sect. 1 and 2, $142,505 and $121,369 respectively, C. F. Hill Rd., $120,680, Seidenbender Rd., $172,000; Premier Constr. Co., W. E. Eppert Rd., $204,000; to Connery & Cline, building bridge on Lockport Rd., $6,800.

Mich., Detroit—City received bids furnishing labor and material for grading and paving with 1 course concrete, 2 x 6 in. retaining plank sides and stone headers (a) Alley 1,174 between St. Jean, Caldwin, Sylvester and Canfield Aves, (b) 1,195 between Brush, Beaubien, Brady and Illinois Sts., (c) 1,176 between Beechwood, Grand River, Ivanhoe and Spokane Sts., (d) 1,177 between 14th, Wabash, Marquette and Ferry Park Aves., (e) 1,178 between Fisher, Crane, Goethe and Mack Aves., (f) 1,179 between Wilson, Taylor and Clairmount, (g) 1,180 between West Grand Blvd., Vinewood, Hancock and Warren Sts., (h) 1,181 between Linwood St., La Salle Blvd. and La Salle Gardens N., from Otis Cement Constr. Co., 806 Hammond Bldg., (a) $5,183, (b) $5,667, (c) $9,813, (d) $6,248, (e) $8,395, (f) $5,905, (g) $8,773, (h) $6,980; Lester & Shepard, 400 Penobscot Bldg., (a) $5,155, (b) $5,589, (c) $8,308; T. E. Currie, 20 McGraw Bldg., (a) $4,821, (e) $7,993; R. J. Powelson Co., 1577 Iriquois St., (b) $5,775, (c) $9,996, (d) $6,333, (f) $5,723; R. A. Mercier, 746 Hudson Ave., (c) $9,996, (d) $6,100, (g) $8,412, (h) $7,108; R. Porath, 1131 McKinley Ave., (g) $8,872, (h) $7,093.

★**Wisconsin**—State Highway Dept., Madison, let contract improving Green Bay-Oconto Rd., Federal Aid Project 114, Oconto Co., to C. E. Lucia, Big Suamico, $19,836. Work involves 19,775 cu.y.d. earth and 28 cu.yd. borrow excav., 284.5 cu.yd. Class "A" concrete, 42,904 cu.yd. gravel surfacing, etc.

★**Wis., Green Bay**—City let contract improving various streets, to F. P. Caughlin Co., Humboldt Ave., Milwaukee. About $194,000.

★**Wis., North Milwaukee**—City let contract building 28,100 sq.ft. cement walks, to Schoonmaker Constr. Co., Wauwatosa, cutting at $1.50, fill, $1.50, walks, $0.25 and driveway, $0.30.

★**Wis., Superior**—City let contract paving 6 mi. Grand Ave. from city limits to Spaulding Ave., 18 ft. wide, concrete, to Peterson & Nelson, 1201 13th St. About $264,000.

★**Ia., Manning**—Town let contract paving, curbing and guttering streets, to Akin & Flutter, Corning. About $275,000. Noted Feb. 5.

★**Ia., Spirit Lake**—Dickinson Co. let contract grading and paving 4.8 mi. Federal Aid Project 68, from Milford to Clay, involving 51,059 sq.yd. Class "A" concrete and 9,612 cu.yd. dry excav., to Koss Constr. Co., 2818 5th St., Des Moines, $212,161. Noted June 10.

★**Kan., Garden City**—Finney Co. let contract building 17½ mi. Santa Fe Trail, to M. Ammerman, Salina. About $700,000. Noted June 24.

★**Kan., Kansas City**—Wyandotte Co. let contract grading and building culverts on Bonner-Piper Rd., involving 50.8 cu.yd. concrete, 1 ton steel and 13,701 cu.yd. earth excav., to H. A. Kepler, 700 N. 12th St., $37,416; Reidy Rd., involving 76.6 cu.yd. concrete, ½ ton steel, 54,147 cu.yd. earth and 10,335 cu.yd. rock excav., to Spitcaufsky Bros., Kansas City. $65,958.

★**South Dakota**—State Highway Comn., Pierre, let contract grading and draining 24.46 mi. Britton-Sisseton Highway, Federal Aid Project 41, Marshall and Roberts Counties to Jahnig & Davis, Britton, $215,107; graveling, also grading and draining 28.07 mi. Aberdeen-Webster Rd. and Yellowstone Trail, Federal Aid Project 22, Day Co., to Comrs. Day Co., Webster, $59,166 and $177,602 respectively. Noted Mar. 25 and April 1.

South Dakota—State Highway Comn., Pierre, received bids graveling 24.46 mi. Britton-Sisseton Highway, 18-20 ft. wide, Marshall and Roberts Counties, from H. B. Sherburn, Britton, $72,189; Stevens Bros., St. Paul Minn. $75,242. Noted April 1.

★**Wyo., Evanston**—Uinta Co. will grade 7 mi. Hog Back Rd. from Jackson's Hole to state line, 18 ft. wide. About $50,000. Work will be done by day labor under supervision of A. M. Williams, supt. of constr.

★**Tex., Eldorado**—Schleicher Co. will grade, surface and drain 7.35 mi. Highway 4, San Angelo-Sonora Rd., 16 ft. wide. About $168,581; including 10% for engineering and contingencies. Work will be done by day labor. Noted June 24.

Tex., Georgetown—Comrs. Williamson Co. received bids grading, surfacing and draining (a) 5.66 mi. Highway 2, Bartlett-Granger Rd. (new location), 16 ft. wide, involving 4,352 cu.yd. earth borrow, 23,954 cu.yd. earth excav., 308.63 cu.yd. Class "A", 58.1 cu.yd. Class "B" and 1.4 cu.yd. Class "C" concrete, 41,274 lb. plain steel bars in place and 11,453 cu.yd. gravel, (b) grading, surfacing and draining 5.66 mi. Highway 2, Bartlett-Granger Rd. (old location) 16 ft. wide, 2,010 cu.yd. earth borrow, 10,527 cu.yd. earth excav. in roadway, 218.4 cu.yd. Class "A" and 19.88 cu.yd. Class "B" concrete, 19,332 lb. reinforcing steel bars and 12,909 cu.yd. gravel, from Brown & Root, Taylor, (a) $44,862, (b) $35,264; Sherman, Walton & Humphreys, Mexia, (a) $50,740, (b) $40,695; Williamson Co., Georgetown, c/o S. Moore, co. judge, (a) $34,562, (b) $23,772. New location eliminates 2 railroad crossings and if decided upon will mean construction of new road. Noted June 10.

Tex., Gilmer—Upshur Co. received bids June 17, grading, surfacing and draining (a) 9.015 mi. Highway 42, Federal Aid Project 160, 12 ft. wide, involving 39 acres clearing and grubbing, 15,865 cu.yd. gravel, 110.58 cu.yd. Class "C" concrete, 42,392 cu. yd. earth excav., etc., (b) 25.877 mi. Highway 11 from Gregg to Camp Counties, 12 ft. wide, 40,378 lin.ft. scarifying, 36,093 cu. yd. gravel, 46,682 cu.yd. earth excav., 96,441 lb. reinforcing steel, 815.8 cu.yd. Class "A" and 384.1 cu.yd. Class "B" concrete, from C. W. Brice, Gilmer, (a) $61,543; Tibbett & Tibbett, Mineral Wells, (a) $63,604, (b) $176,871; Smith Bros., Crockett, (a) $70,193, (b) $207,453. Noted June 3 and 10.

Tex., Mt. Pleasant—Titus Co. received bids June 16, gravel surfacing and draining (a) 11.21 mi. Highway 1, Federal Aid Project 27, 12 ft. wide, (b) 7.26 mi. Highway 1 from 4 mi. east of here to Morris Co. line, 16 ft. wide, (c) 5.148 mi. Highway 11 from here to Camp Co. line, 12 ft. wide, (d) 5.75 mi. Highway 35, State Aid Project 84, 16 ft. wide, from Smith Bros., Crockett, (a) $152,883, (b) $61,925, (c) $40,527, (d) $44,792; Lone Star Bridge & Steel Co., Houston, (a) $56,107, (b) $14,683, (c) $7,544, (d) $16,305. Noted June 10.

★**Tex., Paris**—Lamar Co. let contracts grading, excavating and paving 62.37 mi. various highways, 18 ft. wide, to Womack Constr. Co. and McElwrath & Rodgers, Paris, $325,000; building bridges and drainage structures on same, to Austin Bros. Bridge Co., 1815 Coombs St., Dallas, $143,000. Work involves 88 acres clearing and grubbing, 336,000 cu.yd. unclassified earth and 1,500 cu.yd. structural excav., 10,100 cu.yd. ditching, 194,797 cu.yd. Class "A" and 275.38 cu.yd. Class "B" concrete, 168,802 lb. reinforcing steel for concrete bridges and culverts, 1580.3 cu.yd. Class "A" and 832 cu.yd. Class "B" concrete in bridges and culverts, 484,800 lb. structural steel, etc.

★**Tex., San Antonio**—Bexar Co. let contract grade surfacing and paving 6.77 mi. Highway 2, Pearsall Rd., 16 ft. wide, to Chapin-Coglazier Constr. Co., Moore Bldg. $43,504, including 10% for engineering and contingencies. Noted June 24.

★**Utah**—State Highway Dept., Salt Lake City, let contract grading and surfacing 30.53 mi. Price-Emery Highway, 20 ft. wide, to Reynolds-Ely Co., Salt Lake City. $231,501.

★**Utah, Provo**—Utah Co. let contract paving 1.5 mi. road west from Lehi, 18 ft. wide, also 1.7 mi. road west from Payson, 18 ft. wide, 7 in. concrete, to Wattis & Samuels, Newhouse Bldg., Salt Lake City, $39,959 and $49,565 respectively; 2.4 mi. Center St. west, 18 ft. wide, 7 in. concrete, also 3.1 mi. Pleasant Grove to Vineyard, 18 ft. wide, 7½ in. concrete, to Gray & Murdock, Salt Lake City, $64,772 and $86,194 respectively.

★**Ariz., Flagstaff**—City let contract building 1.098 mi. State Highway through here, to Warren Bros., 204 Noll Bldg., Phoenix, $74,929. Work involves 2,549 cu.yd. unclassified excav. at $1.90 per cu.yd., 15,690 sq.yd. 6 in. bitulithic paving, $3.43, 76 cu.yd. Class "A" concrete in culverts, $36, 12 cu. yd. Class "B" concrete, $25, 374 cu. yd. excav., $2.50, 89 cu.yd. concrete bridge flooring, $36, and 113 cu.yd. rubble concrete abutments, $25.

Streets and Roads (Continued)

★**Wash., Davenport**—Lincoln Co. let contract surfacing with crushed gravel 11 mi. Donohue Rd. 3, to Northwestern Paving Co., Spokane, $28,525, grading, to S. G. Kinder, Mansfield, $50,979. Noted Feb. 26.

★**Wash., South Bend**—Pacific Co. let contract subgrading and paving 4.63 mi. road, 9, 10 and 18 ft. wide, involving 25,578 sq.yd. concrete, to Albert & Son., Chehalis, $73,065.

★**Cal., Martinez** — Bd. Supervs. Contra Costa let contract grading and paving 1 mi. of main streets in town of Crockett, concrete and bitulithic, to R. Blanco, Vallejo, $26,567; 7 mi. Concord-Clayton Rd. and 4 mi. Ygnacio-Vallejo Rd., oil bound macadam, to A. J. Grier, $48,860 and $37,302 respectively.

★**Cal., San Luis Obispo**—Bd. Supervs. San Luis Obispo Co. let contract grading, draining and paving 11 mi. Route 3, Sect. A, San Luis Obispo-Cambria Rd., 5 in. concrete, to Hunt-Waugh Constr. Co., 1847 West 43rd St., Los Angeles, $171,625.

★**Ont., New Toronto**—Town let contract improving 8th, 19th, 21st, and 22nd Sts., involving 2,200 sq.yd. concrete, 2,700 lin. ft. concrete sidewalks, 600 ft. 4 x 6 ft. concrete storm sewers and 2,500 ft. 6 in. water mains, to Central Foundation Co., Norwich Union Bldg., Toronto. About $40,000.

★**Ont., Owen Sound**—City let contract paving 2 mi. various streets, involving 35,000 sq.yd. bitulithic wearing surface to Warren Bituminous Co., McKinnon Bldg., Toronto, also concrete base, and 3 mi. curbing and guttering, to Curran & Clement, Orilla. About $150,000.

★**Ont., Welland**—Welland Co. let contract building 5½ mi. road from Thorold to Black Horse and Garrison Rd. west from Ft. Erie, waterbound macadam 16 ft. wide, to E. G. Law, 107 Hillsdane Ave., East Toronto, $15,769 per mi.

B. C., South Vancouver—City let contract resurfacing 3.5 mi. Marine Drive, 16 ft. wide, bituminous macadam, to Harrison & Lamond, 744 Hastings St. W., Vancouver. About $50,000.

★**B. C., Vancouver** — City let contract hardsurfacing 3 mi. various streets, asphaltic macadam on macadam base, to Columbia Bitulithic Co., Ltd., 402 Pender St. W., at $1.20 per sq.yd.

Railways

PROPOSED WORK

Quebec—Grand Trunk Ry. System (Canadian Government Ry.), McGill Bldg., Montreal, soon receives bids building 3 mi. single track from Victoriaville to Arthabaska. H. R. Safford, 359 Melville Ave., Montreal, ch. engr.

PRICES AND CONTRACTS AWARDED

New York—Dept. Pub. Welfare, Municipal Bldg., New York City, received bids June 24, building (a) coal railway and trestle and installing coal hoisting apparatus at power house, Blackwell's Island, (b) constructing and equipping new automatic coal railway and trestle, at power house, Metropolitan Hospital, from A. M. Hazell, Inc., 25 Church St., New York City, (a) $17,880, (b) $23,600; O. Metz, 119 Palmetto St., Brooklyn, (a) $19,200, (b) $25,475; P. T. Cox, 150 Nassau St., New York City, (a) $19,900, (b) $27,700.

Excavation and Dredging

PROPOSED WORK

Miss., Tunica—Excavation — Yazoo-Coldwater D. D. plans to build system in Tunica, De Soto and other counties, to include 7 mi. diversion channel, earth dam and levee, involving 10,000,000 cu.yd. dry earth excav. and embankment. S. B. Fithian, hr. Falcon.

Ark., Osceola—Dredging—D. D. 8 had plans prepared by Morgan Eng. Co., engrs., Goodwyn Institute Bldg., Memphis, Tenn., for 85 mi. redredging, involving 2,500,000 cu.yd. dragline excav. T. P. Emerson, secy.

Ark., Osceola—Dredging—D. D. 9 had plans prepared by Morgan Eng. Co., engrs., Goodwyn Institute Bldg., Memphis, Tenn., for 85-100 mi. redredging, involving 9,500,000 cu.yd. dragline excav.

Tex., Port Arthur—Ditch—Supervs. Port Arthur Fresh Water Dist. plan to build 6.6 mi. intake ditch, etc., on Sabine River, 10 mi. above Orange, near Kansas City Southern Crossing. About $1,000,000. Nagle-Witt-Rollins, Amer. Exch. Natl. Bank Bldg., Dallas, engrs.

Cal., Madera—**Irrigation**—**Madera Irrigation Dist. having plans prepared by Quinton, Code & Hill, engrs., Hollingsworth** Bldg., Los Angeles, for 3,900 ft. gravity type concrete masonry dam, in San Joaquin River, near Friant and Millerton, to raise water level 285 ft. and impound 400,000 acre feet, involving 1,300,000 cu.yd. masonry. Above engineers to have charge of construction of dam. T. H. Means, ch. engr. of Dist., 58 Sutter St., San Francisco, to have charge of distributing system to serve 350,000 acres, pumping plants and drainage system. Election will be held to vote on $15,000,00 to $20,000,000 bonds for project. Noted Aug. 7.

N. B., St. John—Dredging—Dept. Pub. Wks., Ottawa, soon receives bids dredging, here. About $450,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Miss., Cleveland** — Excavation — Drainage Comrs. D. D. 10, Bolivar Co., let contract excavating Ditch 1, involving 450,766 cu.yd., to McWilliams Co., Inc., South Memphis St., Memphis, Tenn., $0.19½.

★**B. C., Vancouver**—Dredging—Harbor Comrs., 712 Pender St., W., let contract dredging and filling on site of Ballantyne Pier, to Grant & McDonald, 1201 Georgia St. About $600,000.

Industrial Works

PROPOSED WORK

Mass., Boston—F. A. Norcross, archt., 46 Cornhill St., soon lets contract building 4 story, rein.-con. bakery and storehouse, rein.-con. flooring, concrete foundation, on Boylston St., for Women's Educational & Industrial Union, 264 Boylston St. About $75,000. Noted May 20.

Mass., Cambridge — Monks & Johnson, engrs., 99 Chauncey St., Boston, soon let contract building 1 and 3 story rein.-con. plant, rein.-con. flooring, concrete foundation, here, for Barta Press Co., 28 Oliver St. Boston. About $125,000.

Mass., Cambridge—F. F. Jonsberg Co., archts. and engrs., 16 Central St., Boston, soon lets contract building 2 story, 140 x 230 ft., rein.-con. warehouse and refrigerating plant, rein.-con. flooring, concrete foundation, on Albany and Pacific Sts., for E. E. Gray Co., 154 Hanover St., Boston. About $250,000. Noted April 8.

Mass., East Springfield (Springfield P. O.)—New England Westinghouse Co., 165 Bway., New York City, soon lets contract building 4 story, brick and concrete machine shop, rein.-con. flooring, concrete foundation, here. About $225,000. B. H. Prack, Keystone Bldg., Pittsburgh, Pa., engr.

Mass., Willimansett (Holyoke P. O.)—New England Tire & Rubber Co., Springfield, plans to build large brick and rein.-con. plant, here. F. H. Callahan, pres. Private plans.

Mass., Worcester—E. T. Chapin, archt., 340 Main St., scon lets contract building 1 story, 80 x 95 ft., brick, concrete and steel, garage rein.-con. flooring, concrete foundation on School St., for M. N. Ullman, 50 Water St. About $50,000.

Conn., East Hartford (Hartford P. O.)—A. F. Way Co., 32 Union Pl., Hartford, soon lets contract building 1 story, 50 x 150 ft., brick and concrete plant, rein.-con. flooring concrete foundation, here. About $75,000. M. B. Harding, 33 Elm St., Westfield, Mass., archt.

Conn., Fairfield—Bridgeport Deoxidized Bronze & Metal Co., Iranistan Ave., Bridgeport, plans to build 1 story, concrete and steel factory, on Benson Rd., here. Architect not selected.

Conn., Waterbury—M. J. Daly & Sons, 543 Bank St., soon let contract building 1 story, 110 x 180 ft., brick and steel plant, rein.-con. flooring, concrete foundation. About $80,000. Private plans.

Conn., Waterbury—E. J. Manville Machine Co., 574 East Main St., soon lets contract building 2 story, 50 x 200 ft., brick and mill construction plant, concrete foundation. About $65,000. Private plans.

N. Y., Batavia—Batavia Specialty Co., Harvester Ave., plans to build 70 x 250 ft., rein.-con. plant. About $100,000.

N. Y., Buffalo—Eberhardt Steel Products Co., 41 Perry St., had plans prepared for 1 story, 100 x 200 ft. factory at 622-628 East Ferry St. C. Eberhardt, Jr., pres.

N. Y., Falconer — Jamestown Malleable Products Corp., Jamestown, having plans prepared for 400 x 400 ft., brick and steel foundry here. About $300,000. O. A. Lenna, pres.

N. Y., New York—Hill-Ware Co., c/o McCormick Co., archts. and engrs., 41 Park Row, soon lets contract building brick, steel and concrete bakery, rein.-con. flooring, concrete foundation, on 165th St. About $100,000.

N. Y., New York—S and Z Bldg. Co., c/o J. M. Felson, archt. and engr., 1133 Bway., having revised plans prepared for 4 story, rein.-con. and steel garage and service station, rein.-con. flooring, concrete foundation, on Manhattan Ave. and 130th St. About $150,000. Noted June 24.

Pa., Horrell (Canoe Creek P. O.)—Standard Powder Co., Phila., purchased several hundred acres, here, and plans to construct plant, to consist of twenty-one 1 story buildings with standard gauge connecting railroad and macadam road. About $1,000,000.

Pa., Pittston—Pittston Silk Throwing Co., 91 North Main St., plans to build 1 story, 60 x 150 ft., brick mill, rein.-con. flooring, rock foundation, on North Main St. About $60,000. Architect not selected.

Pa., Whites Ferry (Falls P. O.)—Industrial Home plans to build 2 story, 100 x 400 ft., rein.-con. and brick dairy, rein.-con. flooring, rock foundation. About $[illegible]000. Architect not selected.

Md., Baltimore—I. Silberstein, 607 Equitable Bldg., had plans prepared by S. Ridgely, archt., 2730 North Calvert St., for 3 story, 48 x 144 ft., brick, concrete and steel industrial building, concrete foundation, on Paca and Fayette Sts. About $150,000.

N. C., Charlotte—Charlotte Spinning Mill Co. having plans prepared by Watson Eng. Co., archts. and engrs., Hippodrome Bldg., Cleveland, O., for 3 story, 100 x 300 ft. spinning mill and boiler house, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $200,000.

Ga., Savannah—Atlantic Coast Line R. R., Bull St., plans to build roundhouse, turntable and additions to Southover shops. About $250,000. J. E. Willoughby, Wilmington, N. C., ch. engr.

Fla., Pensacola—Alexandria Cooperage & Lumber Co., Alexandria, La., plans to build cypress mill, here. About $200,000.

O., Cleveland—Amer. Can Co., 1677 East 40th St., having plans prepared by C. C. Preis, archt. and engr., 120 Bway., New York City, for 6 story, 60 x 170 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Payne Ave. and East 41st St. About $200,000. H. C. Meyer, supt.

O., Cleveland—G. J. Koller, 724 Prospect Ave., purchased site and plans to build 3 story, rein.-con., brick and steel warehouse and commercial, rein.-con. flooring, concrete foundation, on Euclid Ave. and East 84th St. About $100,000. Architect not selected.

O., Cleveland—Standard Envelope Mfg. Co., c/o M. Altschul, 1011 Oregon Ave., plans to build 2 story, brick and steel factory, brick foundation. About $75,000. Architect not selected.

Ill., Chicago—See "Buildings."

Ill., Chicago—E. Katzinger Co., 120 North Peoria St., having plans prepared by A. S. Alschuler, archt., 28 East Jackson Blvd., for factory on Armitage and Cicero Aves., with 200,000 sq.ft. floor space. About $[illegible],000.

Wis., Milwaukee—Amer. Metal Products Co., Clinton St., plans to build 80 x 220 ft. foundry, on Burnham St. C. J. Zeise, genl. mgr.

Wis., Racine—Case Plow Wks., Mead St., plans to build 4 story, 123 x 138 ft., rein.-con. addition to factory. About $140,000. Foltz & Brand, 111 West Washburn St., Chicago, engrs.

Wis., West Bend—West Bend Heat & Light Co. plans to build 113 x 150 ft. power plant. Cost between $80,000 and $100,000. Combustion Eng. Co., 11 Bway., New York City, engrs.

Ia., Sioux City—Sioux City Casket Co., 900 5th St., soon lets contract building 2 story, 44 x 190 ft., factory and office, brick. About $200,000. Beuttler & Arnold, Grain Exch. Bldg., archts. Noted May 6.

Wyo., Shoshoni—Wyoming Chemical Products Co., Duluth, Minn., plans to construct plant, to include one 30 x 60 ft., three 40 x 100 ft. and two 40 x 120 ft. buildings, wood construction. About $180,000. W. G. Weyl, Shoshoni, engr.

Tex., Dallas—Samson Tractor Co., Keating Bldg., having plans prepared for assembling plant. About $100,000. L. F. Garlock, mgr.

Tex., Dallas—Texas Paper Co., 1200-1206 Patterson Ave., having plans prepared building 4 story, 100 x 254 ft., concrete and brick warehouse concrete foundation, on Walton and Indiana Sts. About $250,000.

Tex., Ft. Worth—L. L. Hawes, archt., Clark Ave., receives bids about Aug. 1, building large factory, here, for Simmons Co., 1347 South Michigan Ave., Chicago. About $200,000.

(Industrial Works (Continued)

Ont., Ingersoll—Dominion Cone Co., Ltd., 14 Morrow Ave., Toronto, and Folding Paper Boxes, Ltd., plans to build 3 story, concrete, brick and steel factory, rein.-con. flooring, concrete foundation, here. About $50,000. Architect not selected.

Ont., Toronto—Sunlight Soap Co., Eastern Ave., plans to build 3 story, rein.-con., brick and steel addition to factory, rein.-con. flooring, concrete foundation. About $350,000. Architect not selected.

Ont., Windsor—Universal Car Agency, Chatham and Pelisier St., having plans prepared by J. C. Pennington, archt., La Belle Bldg., for 2 or 3 story, rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Chatham St. About $75,000.

BIDS DESIRED

N. Y., Dannemora—Until July 7, by C. F. Rattigan, supt. state prisons, Capitol, Albany, building refrigeration plant and cooling rooms, for kitchen building, at Clinton Prison, here. L. F. Pilcher, state archt.; advertised in this issue.

N. Y., Ogdensburg—Until July 7, by State Hospital Comn., Capitol, Albany, altering and building addition to central heating plant, at St. Lawrence State Hospital, here. L. F. Pilcher, state archt.; advertised in this issue.

N. J., Butler—Until July 12, by Boro. Council, furnishing labor and material building addition to lighting plant. J. F. Bormuth, clk.; advertised in this issue. Noted May 27.

Pa., New Kensington—Genl. Electric Co., Erie, receiving bids building 1½ story, 70 x 260 ft., brick and steel factory, rein.-con. flooring. About $100,000. Private plans.

Pa., Pittsburgh—Flocker Motor Co., Union Arcade, receiving bids building 1 story, 75 x 100 ft. service shop and show room, concrete, brick and steel, rein.-con. flooring, on Cypress and Aspen Sts. About $50,000. W. W. Williams, Magee Bldg., archt.

Mich., Detroit—Until July 6, by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, building 3 story, 101 x 155 ft., rein.-con., brick and steel service station, rein.-con. flooring, concrete foundation, for Kirby Ave. Development Co., c/o architects. Noted June 24.

Mich., Detroit—Until July 6, by H. S. Starkey, secy. Bd. Water Comrs., 232 Jefferson Ave., building 1 story, 90 x 120 ft., brick and steel machine repair shop, rein.-con. flooring, concrete foundation.

Wis., Milwaukee—W. H. Krueger Motor Car Co., 485 Jefferson St., receiving bids building 2 story, 40 x 120 ft., rein.-con. and brick garage, rein.-con. flooring, concrete foundation. About $60,000. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Biddeford**—Saco-Lowell Shop, 77 Franklin St., Boston, let contract building 1 story, 160 x 200 ft., rein.-con. and steel foundry, rein.-con. flooring, concrete foundation, here, to Aberthaw Constr. Co., 27 School St., Boston. About $250,000.

★**Mass., Boston**—W. L. Putnam and A. Lyman, 60 State St., let contract altering and building 4 story, 44 x 150 ft., brick and timber addition, to warehouse, concrete foundation, on Washington St., to N. Hurwitz, 294 Washington St. About $100,000.

★**Mass., Dorchester** (Boston P. O.)—Simmons & Weiner, c/o S. S. Eisenberg, archt., 15 Court Sq., Boston, will build 1 story, 150 x 180 ft., rein.-con. garage, rein.-con. flooring, concrete foundation, on Dorchester Ave. and Faulkner St., here. About $100,000. Work will be done by day labor under supervision of architect.

★**Mass., Holyoke**—J. and W. Jolly, Inc., South East St., let contract building 2 story, 100 x 100 ft., brick and steel foundry, concrete flooring, to Casner Ranger Constr. Co., Bond St. About $75,000.

★**Mass., Lynn**—J. F. Hunt, 28 Mulberry St., will build 1 story, 90 x 150 ft., brick and steel garage, concrete flooring and foundation, on Pleasant St. About $50,000. Work will be done by day labor.

★**Mass., New Bedford**—T. M James, archt., 3 Park St., Boston, let contract to E. A. Abbott Co., 3 Park St., Boston, altering and building 3 story, brick and mill construction addition to plant, concrete foundation, on Church St., for W. C. Jones Co., Nash Rd. About $75,000. Noted June 24.

★**Mass., Springfield**—Western Massachusetts Cadillac Co., Inc., 521 Worthington St., let contract building 1 story, 102 x 107 ft., brick, concrete and steel, garage and service station, rein.-con. flooring, concrete foundation, on State and Oak Sts., to A. W. Wylie, 599 State St. About $65,000.

★**Mass., Worcester**—Cutting, Carlton & Cutting, archts., 44 Front St., let contract to E. D. Ward Co., 52 Foster St., building 1 and 2 story, 60 x 160 ft., brick and rein.-con. garage, sales and service station, rein.-con. flooring, concrete foundation, on Park Ave., for H. J. Murch, 731 Main St. About $150,000. Noted March 18.

★**R. I., Bristol**—Jenks & Ballou archts. and engrs. 1035 Grosvenor Bldg. let contract to C. I. Bigney Constr. Co., 357 Westminster St., Providence, building 4 story, 100 x 130 ft., brick and mill construction addition to plant, concrete foundation, for Cranston Worsted Co. About $160,000. Noted June 24.

★**R. I., Woonsocket**—Glenbrook Worsted Mills let contract building 1 story, 85 x 200 ft., brick and mill construction factory, concrete foundation, on Mason St., to J. C. N. Bouvier, 189 Sayles St. About $100,000.

★**Conn. East Hartford** (Hartford P. O.)—Olds & Whipple, 166 State St., Hartford, let contract building 1 story, 180 x 220 ft., brick and steel plant with 3 story, 25 x 80 ft. ell, rein.-con. flooring, concrete foundation, here, to Austin Co., 217 Bway., New York City. About $150,000.

★**Conn., Hartford**—Amer. Cement Co., 686 Windsor Ave., will build 1 story, 50 x 275 ft. and 1 story, 40 x 140 ft., brick and terra cotta warehouse, concrete foundation. About $50,000. Work will be done by day labor.

★**N. Y., Elmhurst** (Flushing P. O.)—Factory Constr. Co., 44 Court St., Brooklyn, will build 1 story, 100 x 200 ft., brick and steel garage, rein.-con. flooring, concrete foundation, in East Elmhurst. About $100,000. Work will be done by day labor.

★**N. Y., New York**—Crotona Realty Co., 170 Bway., will build 1 story, 85 x 150 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Southern Blvd. and 172nd St. About $50,000. Work will be done by day labor. W. Weschler, pres.

★**N. Y., New York**—J. W. Goff, 309 Bway., will build 1 story, 100 x 220 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Jerome Ave. and 177th St. About $50,000. Work will be done by day labor.

★**N. Y., New York**—A. D. Russell, 20 Exchange Pl., let contract building 3 story, 60 x 100 ft., rein.-con. and steel stable, rein.-con. flooring, concrete foundation, at 515 West 43rd St., to J. T. Brady, 103 Park Ave. About $95,000.

★**N. Y., Olean**—See "Miscellaneous."

★**N. Y., Syracuse**—Atmospheric Nitrogen Corp., Milton Ave., let contract building 1 story brick, rein.-con. and steel plant, rein.-con. flooring, concrete foundation, on Willis Ave., to J. W. White, Eng. Corp., 43 Exch. Pl. New York City. About $500,000.

★**N. J., Carteret**—Carteret Oil & Refining Co. let contract building 1 story, 100 x 260 ft., brick and steel addition to factory, to Amer. Concrete Steel Co., 27 Clinton St., Newark. About $175,000.

★**N. J., Morristown**—Manhattan Rubber Co., Willet St., Passaic, let contract building rein.-con., brick and steel plant, rein.-con. flooring, concrete foundation, to Stone & Webster, 120 Bway., New York City. About $1,000,000.

★**Pa., Erie**—Genl. Electric Co. let contract building 1 and 2 story, 230 x 900 ft., brick and steel machine shop, rein.-con. flooring, to Hughes-Foulkrod Co., Oliver Bldg., Pittsburgh; building foundations, to H. Shenk Co., Erie. Total $1,000,000.

★**Pa., Pittsburgh**—See "Industrial Works."

★**Md., Baltimore**—Chesapeake Mfg. Co., Sharp and Barre Sts., let contract building 3 story, 42 x 125 ft., concrete and brick factory, concrete foundation, to H. S. Rippel, 1929 West Baltimore St. About $125,000.

★**Md., Baltimore**—N. Davis & Co., 19 South Front St., let contract building 3 story, 24 x 40 x 53 x 59 ft., brick and steel warehouse, rein.-con. flooring, concrete foundation, at 805-11 Plowman St., to R. H. Frazier & Son, 224 West Mulberry St. About $100,000.

★**Md., Baltimore**—Natl. Enameling & Stamping Co., Race and Ostend Sts., let contract building 3 story, 61 x 76 ft., rein.-con. and brick addition to plant, concrete foundation, to J. Waters Bldg. Co., 23 East Center St. About $100,000. Noted April 29.

★**N. C., Charlotte**—J. H. Cutter, Commercial Bank Bldg., let contract building cotton warehouse, to J. A. Jones & Co., Realty Bldg. About $300,000.

★**S. C., Charleston**—Cyclone Starter & Truck Co. let contract building 1 story, 100 x 260 ft. factory and 30 x 44 ft. boiler house, brick, steel and concrete, rein.-con. flooring concrete foundation, to H. K. Ferguson Co., Vickers Bldg., Cleveland, O. About $200,000.

★**O., Akron**—Akron Grocery Co., Mill and Summit Sts., let contract building 5 story, 80 x 210 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, to Carmichael Constr. Co., 524 Hamilton Bldg. About 200,000. Noted June 3.

★**O., Cleveland**—Champion Bed Spring Co., 3717 Iron Court, let contract building 2 story, 58 x 172 ft., brick and steel factory, brick foundation, at 6500 Park Ave. to Hubert-Lear, East 37th St. and Iron Court. About $80,000. Noted June 24.

★**O., Cleveland**—Judd Automobile Co. 4601 Euclid Ave., let contract building 2 story, 120 x 235 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on East 46th St and Euclid Ave., to M. E. Bertram & Co., 1081 East 171st St. About $125,000. A. Henn, secy.

★**O., Cleveland**—Lake Erie Steel Co., Stop 13—A. B. C. line, let contract building 1 story, 50 x 180 ft., brick and steel addition to mill, brick foundation, to Republic Structural Iron Wks. Co., East 53rd St. About $75,000.

★**O., Cleveland**—Mechanical Rubber Co. Lisbon Rd., let contract building 1 story, 34 x 102 ft. rein.-con., brick and steel substation, rein.-con. flooring, concrete foundation, to Stone & Webster Co., Leader News Bldg. About $100,000.

★**O., East Akron** (Akron P. O.)—Northern Ohio Traction & Light Co., Terminal Bldg., Akron, let contract building car barn, here, to H. P. Moran Co., Terminal Bldg., Akron. About $93,000.

★**O., East Cleveland** (Cleveland P. O.)—Natl. Lamp Co. of General Electric Co. Nela Park, let contract building 1 story, 48 x 86 ft., rein.-con., brick and steel heating plant, rein.-con. flooring, concrete foundation, to Heller Bros., East 152nd St. and St. Clair Ave., Cleveland. About $75,000.

★**Ill., Chicago**—Stewart-Warner Speedometer Co., 1828 Diversey Parkway, let contract building 6 story, 96 x 170 ft., rein.-con. and brick factory, rein.-con. flooring concrete foundation, at 830 Diversey Parkway, to J. Jensen & Sons, 1634 North Mozart St. About $350,000.

★**Ill., Marseilles**—Natl. Biscuit Co., 10th Ave. and 15th St., New York City, let contract building 8 story, rein.-con. and steel warehouse and factory, rein.-con. flooring, concrete foundation, here, to J. Griffiths & Son Co., 112 West Adams St., Chicago. About $900,000. Noted June 3.

★**Ia., Cedar Rapids**—H. T. Hedges let contract building 1 story, brick and steel garage and repair shop, concrete flooring and foundation, to T. Stark & Co., Cedar Rapids. About $50,000.

★**Ia., Muscatine**—Muscatine Packing Co. let contract constructing plant, to include 50 x 100 ft. manufacturing building, 100 x 200 ft. cold storage, and 70 x 85 ft abattoir, all 5 story, also office building and stock pens, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Federation Constr. Co., Sioux City. About $1,000,000; cost plus percentage basis.

★**Mo., Kansas City**—Quality Ice Co., 4th and Oak Sts., will build 2 story, 50 x 90 ft., rein.-con. storage pl., rein.-con. flooring About $50,000. Work will be done by day labor.

★**Mo., Kansas City**—Tarbett & Sornell, archts., Republic Bldg., let contract building 3 story, 112 x 142 ft., rein.con., brick and stone garage, rein.-con. flooring, concrete foundation, on 10th and Wyandotte Sts., to Pratt & Thompson, Republic Bldg. Owner's name withheld.

★**Mo., St. Louis**—Blanton Oleomargarine Co., 1st and Spruce Sts., let contract building 5 story, 72 x 151 ft., rein.-con. and brick plant and power house, to Kellerman Contr. Co., International Life Bldg. About $300,000.

Buildings

PROPOSED WORK

Mass., Agawam—Church—St. William Roman Catholic Society, Springfield, plans to build church, here. About $100,000. T. D. Beaver, bishop. Architect not selected.

Mass., Attleboro—Bank and Office—W. R. Walker & Son, archts., 17 Custom House St., Providence, R. I., soon let contract building 5 story, 60 x 140 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Park St., for 1st Natl. Bank, Main St. About $175,000. Noted May 27.

Mass., Brookline—Sales—C. Allbright, archt., 6 Beacon St., Boston, soon lets contract building 2 story, 100 x 270 ft., brick and limestone, rein.-con. flooring, concrete foundation, on Commonwealth and St. Paul Sts., here, for D. Cerussi, 15 Exchange St. Boston. About $200,000. Noted May 27.

Mass., Fitchburg—School—School Comn. having plans prepared by S. W. Haynes, archt., Main St., for 3 story, brick and steel, on Academy and Elm Sts. About $400,000.

Mass., Readville (Boston P. O.)—Church—Maginnis & Walsh, archts., 100 Boylston St., Boston, soon lets contract building 1 story, brick or stone, rock or concrete foundation, on West Milton St., for St. Anne Roman Catholic Society. About $100,000. D. F. Regan, pastor. Noted June 10.

Buildings (Continued)

Conn., Winsted — Society — Knights of Columbus, Main St., plans to construct 2 story, 75 x 160 ft., brick and concrete. About $100,000. Architect not selecetd.

N. Y., Batavia—School—City voted $153,000 bonds to improve William and East Main St. Schools and convert Knights of Columbus clubhouse on Bank St. into school. Noted June 10.

N. Y., Brooklyn—Bank—Koch & Wagner, archts. and engrs., 32 Court St., receive bids about July 10, building 1 story, 50 x 100 ft., brick, steel and stone, brick foundation, on Bedford and DeKalb Aves., for East Brooklyn Saving Bank, 643 Myrtle Ave. About $110,000.

N. Y., Lackawanna — Community — City issued $100,000 bonds to build community house. J. O'Connor, city clk.

Pa., Charleroi—Bank—First Natl. Bank of Charleroi having plans prepared by W. L. Stoddart, archt. and engr., 9 East 40th St., New York City, for altering brick and stone, brick foundation. About $500,000.

Pa., Erie—Bank—Second Natl. Bank, 8th and State Sts., soon lets contract building 1 story, 60 x 130 ft., brick and stone, brick foundation, on 9th St. About $400,000. W. L. Stoddart, 9 East 40th St., New York City, archt. and engr. Noted March 4.

Pa., Wilkes-Barre — Clubhouse — City plans to build brick culbhouse, rock foundation, in Hollenback Park. About $120,000. Architect not selected.

Md., Baltimore—Bank and Office—Natl. Bank of Baltimore, Baltimore and St. Paul Sts., has purchased site adjoining present building and plans to construct 20 story. T. R. Thomas, pres.

Md., Baltimore—Temple—Maryland Lodge A. F. & A. M. having plans prepared by C. N. Friz, archt., 1523 Munsey Bldg., for enlarging present building on St. Paul St. About $2,000,000.

Md., Baltimore—Theatre, Store, etc.—F. H. Keiser, Pottstown, Pa., receives bids about July 12 building 2 and 3 story, 90 x 172 ft., concrete and brick, rein.-con. flooring, concrete foundation, at 1317-33 Pennsylvania Ave., here. About $200,000. Lockman & Murphy, 356 Drexel Bldg., Phila., archts. Noted May 13.

W. Va., New Cumberland—Courthouse—Hancock Co. election July 19, to vote on $110,000 bonds to build new 2 story courthouse on Square.

O., Akron—Hotel—C. Brill plans to build 6 story, 150 room hotel, on East Market St. About $300,000.

O., Akron—Hotel and Theatre—J. Eberson., archt., 64 East Van Buren St., Chicago, Ill., receives bids about Sept. 1 building 10 story, 133 x 225 ft. hotel and 1 story, 109 x 185 ft. theatre, rein.-con. and brick, rein.-con. flooring, concrete foundation, for Akron Prospect Co. About $1,250,000.

O., Cleveland—High Schools—Bd. Educ., East 6th St. and Rockwell Ave., plans to build four 3 story, 30 room, brick, steel and concrete, Junior High Schools, rein.-con. floorings, concrete foundations, one on East 116th and Corbett Sts., one on Holmes Ave., one on Hyde Ave. and West 44th St., and other in Woodland Hills Park. About $2,000,000 each. W. R. McCormack, East 6th St. and Rockwell Ave., archt.

O., Cleveland — Hotel — B. Lederman, 10709 Pasadena Ave., having plans prepared by M. Weiss, archt., 618 Union Bldg., for 6 story, 60 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 105th St. and Euclid Ave. About $500,000.

O., Cleveland—Schools—Bd. Educ., East 6th St. and Rockwell Ave., plans to build two 3 story, 16 room, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, one on East 175th St. near St. Clair Ave. and one on East 145th St. and Castalia Ave. About $750,000 each. W. R. McCormack, East 6th St. and Rockwell Ave., archt.

O., Cleveland—School—Church of The Holy Family, East 131st St. and Chapelside Ave., having plans prepared by W. Koehl, archt., 906 Park Bldg., for 3 story, 12 room, rein.-con. and brick, concrete foundation. About $125,000.

O., Euclid — Convent — Good Shepherd Sisters, East 30th St. and Carnegie Ave., purchased site and plan to build 3 story, rein.-con., brick and steel, rein.-con flooring, concrete foundation, at Stop 10½ Euclid Ave. About $300,000. Architect not selected.

O., Springfield—Schools—Bd. Educ. having plans prepared by O. D. Howard, archt., 8 East Broad St., Columbus, for remodeling 2 story, school, on Fulton St., also building 2 story, 110 x 128 ft., brick, stone and concrete, on Maiden Lane. About $100,000 and $225,000 respectively.

O., Youngstown — Office — L. J. Hunter, atty., L. Miller, archt., 359 Arlington St., and J. P. Francis, 1112 Wick Bldg. (representing stock company), acquired option on lease and plan to build 10 or 12 story, on Boardman and Phelps Sts. About $600,000.

Mich., Detroit — Club House — Amity Lodge, I. O. O. F., 35 Vincennes St., having plans prepared by A. Clubb, archt., Goebel Bldg., for 4 story, 50 x 100 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Vincennes St. About $120,000.

Mich., Detroit—Home—Old Folks' Jewish Home, c/o I. M. Lewis, archt., Congress Bldg., having plans prepared for 2 story, 50 x 90 ft., brick, concrete and steel, brick foundation, on Edmund Pl. About $100,000.

Ill., Chicago—Office, etc.—J. F. Jelke Co., 759 South Washtenaw Ave., having plans prepared by Graham, Anderson, Probst & White, archts., 1417 Ry. Exch. Bldg., for office building and garage, each 2 story, 112 x 120 ft., concrete, steel and brick, concrete foundations, on Washtenaw Ave. and Polk St. About $600,000.

Ill., Chicago—Office—Standard Oil Co. of Indiana, 910 South Michigan Ave., had plans prepared by Marshall & Fox, archts., 721 North Michigan Ave., for 9 story, 133 x 238 ft. rein.-con., steel and brick, concrete foundation. About $1,250,000.

Wis., Milwaukee—Store—E. Schuster & Co., 12th and Vliet Sts., rejected bids building 3 story, 150 x 150 ft. addition. About $250,000. Work will be readvertised. Noted May 13.

Wis., Two Rivers — High School — Bd. Educ. receives bids about Aug. 15 building 3 story, 144 x 198 ft. rein.-con. brick, steel and hollow tile, brick foundation. About $400,000. J. D. Chubb, Dearborn St., Chicago, Ill., archt. Noted Jan. 8.

Kan., Ft. Scott—Church—Hawk & Parr, archts., 501 Sec. Bldg., Oklahoma, Okla., soon receives bids building 2 story, 60 x 105 ft., brick and stone. About $100,000.

Mo., Springfield — Schools — Bd. Educ. plans to sell $600,000 bonds to build and equip schools. E. J. Hoffman, secy.

Okla., Shawnee—High School—Bd. Educ. having plans prepared by A. C. Davis & Son, archts., Shawnee, for 3 story, 75 x 170 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000.

Col., Craig—Bank—Craig Natl. Bank plans to build 2 story bank. About $130,000.

Col., Colorado Springs—Home—International Typographical Union, 221 Hagerman Bldg., plans to build an addition to Union Printers' Home. About $200,000.

Que., Dixie—Club House—Royal Montreal Golf Club soon receives bids building rein.-con. and steel, on Lake Shore, here. About $450,000.

Ont., Kingston—School—Dominion Government voted $265,000 bonds to build 3 story concrete and steel addition to Royal Military College, Barriefield St., rein.-con. flooring, concrete foundation.

Ont., Kitchener — Theatre — Lasky Film Corp., King St., plans to build 1 story, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation. About $350,000. Architect not selected.

Ont., Ottawa—Store—L. R. Steel Co., 323 Washington St., Buffalo, N. Y., plans to build store on Sparks St. About $200,000.

Ont., Peterboro — Exhibition — Peterboro Industrial Exhibition having plans prepared by W. G. Barry, archt., 539 Gilbert St., for 1 story, 100 x 300 ft., concrete, brick and steel, concrete foundation. About $120,000. A. Denne, pres.

Ont., Toronto—School—Separate School Bd., 67 Bond St., having plans prepared by C. J. Reade, archt., 67 Bond St., for 2 story, 12 room, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Beverly St. About $160,000.

Ont., Toronto—School—Bd. Educ., College St., plans to build 3 story, 30 room, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Greenwood Ave. About $400,000. Address, A. McKay, Central Technical School. Architect not selected.

BIDS DESIRED

Mass., Mattapan (Boston P. O.)—Dining Room—Until July 13, by Commonwealth of Massachusetts, Comm. of Mental Diseases, 36 State House, Boston, building 2 story, brick and concrete, rein.-con. flooring, concrete foundation (west group), at State Hospital, here. About $200,000. Kendall, Taylor & Co., 93 Federal St., Boston, archts. and engrs. Noted June 24.

Mass., Watertown (Boston P. O.)—Bank—Until July 6, by Union Market Natl. Bank, building 1 story, 45 x 71 x 80 x 105 ft., triangular shaped. Dennison & Hirons, 475 5th Ave., New York City, archts.

N. J., Roselle Park (Elizabeth P. O.)—School—Until July 20, by Bd. Educ., at Robert Gordon School, building Abbott School. W. G. Elicker, dist. clk.; advertised in this issue. Noted June 17.

Pa., Uniontown—Store—Until July 7, by A. Kahn, archt., Marquette Bldg., Detroit, for 9 story, 38 x 56 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Gallatin Ave. and Main St., for Aaron Furniture Co. Noted June 10.

W. Va., Morgantown—Bank and Office—Monongahela Bldg. Co. receiving bids building 8 story, 78 x 86 ft., brick, steel and limestone, rein.-con. flooring, on High and Court Sts. About $250,000. S. F. Hecker, Bessemer Bldg., Pittsburgh, Pa., archt.

Fla., Gainesville—Schools—Until July 5, by E. R. Simmons, supt. Alachua Co. Public Schools, building 170 x 230 ft. high school and 66 x 267 ft. grade school, brick, tile, terra cotta or stone and stucco. Total cost, $300,000. About $150,000 now available.

N. C., Wake Forest—Hotel—Until July 15, by R. W. Warren, building hotel. About $100,000. F. B. Simpson, Raleigh, archt.

N. C., Wilmington—Church—Until July 15, by Bd. Trustees building 3 story, 54 x 130 ft. addition to 1st Baptist Church. About $100,000. H. L. King, Richmond, Va., archt.

O., Brookville—High School, etc.—Until July 9, by Bd. Educ., c/o C. S. Prass, clk., furnishing labor and material for building 2 story, fireproof high school, including auditorium and gymnasium.

Ill., Amboy—Bank—D. H. Burnham & Co., archts., 209 South La Salle St., Chicago, receiving bids building 1 and 2 story, 50 x 100 ft., brick and timber, concrete foundation, for 1st Natl. Bank. About $100,000. Noted May 13.

Ia., Collins—School—Until July 9, by Bd. Educ., building 2 story, 68 x 109 ft., brick, rein.-con. and steel, concrete foundation. About $120,000. T. Thorson, Forest City, archt. Noted May 13.

Ia., McCallsburg — School — Until July 8, by Bd. Educ., building 60 x 100 ft., rein.-con. and brick. About $110,000. W. L. Pedicord, Iowa Falls, archt.

Minn., St. Paul—School—Until July 12, by City Clerk, building 2 story, 60 x 128 ft., rein.-con. and brick addition, on Randolph Heights. About $100,000. C. A. Haulsee, City Hall, archt. Noted Jan. 1.

Kan., Linwood—High School—Bd. Educ. Dist. 2, receiving bids building 3 story, 58 x 100 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $110,000. W. E. Hulse & Co., Hoke Bldg., Hutchinson, archts. Noted May 13.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Vt., Springfield—School—School Bd. let contract building 2 story, 60 x 75 ft., brick and steel, concrete foundation, to Allen Bros., Amherst, Mass. About $100,000.

★Mass., Boston — School — School Dept. let contract building 2 story addition to Michael Angelo School, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Charter St., to J. Bowen Co., 184 Dudley St., Roxbury, $247,000. Noted June 17.

★Mass., Cambridge — School — Buckingham School Corp. let contract building 2 story, 75 x 130 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Buckingham and Parker Sts., to F. L. and C. E. Whitcomb, 17 Warehouse St., Boston. About $100,000.

★Mass., Lowell—Saco-Lowell Shops, 77 Franklin St., Boston, let contract building 1 story, 130 x 140 ft., brick and steel foundry, rein.-con. flooring, concrete foundation, on Walker St., here, to D. H. Walker, 529 Dutton St. About $100,000.

★Mass., Taunton—Theatre and Stores—H. P. Groves, archt., 40 Middlesex St., Lowell, let contract to Weiss Constr. Co., 40 Court St., Boston, building 2 story, brick and mill construction, concrete foundation, for Black-Spitz Theatres, Inc. Cost between $150,000 and $175,000. Noted May 13.

★R. I., Arctic—Theatre—H. P. Groves, archt., 40 Middlesex St., Lowell, Mass., let contract to Weiss Constr. Co., 40 Court St., Boston, building 2 story, 67 x 138 ft., brick and steel, concrete foundation, here, for Black-Spitz Theatres, Inc., Taunton, Mass. About $150,000. Noted June 24.

★R. I., Lonsdale (Pawtucket P. O.)—Housing—Lonsdale Co. let contract building one 28 x 97 ft., two 26 x 44 ft. and one 26 x 120 ft., brick and timber houses for workmen, concrete foundations, to J. W. Bishop Co., Butler Exch., Providence. About $125,000.

★N. Y., Brooklyn — Church, etc. — St. Michael Church, c/o G. E. Steinbach, archt. and engr., 157 West 74th St., New York City, let contract building 1 and 3 story, 80 x 82 ft. and 30 x 195 ft., brick and stone church and monastery, brick foundations, on Atlantic Ave., to A. Wischerth, 518 Jamaica Ave., Jamaica. About $175,000.

Buildings (Continued)

★**N. Y., New York**—Bank and Office—State Bank, 363 Stone Ave., Brooklyn, let contract building 6 story, 25 x 100 ft., brick and stone, brick foundation, at 349 West 34th St., here, to J. F. Meehan, 224 West 34th St. About $100,000. Noted May 13.

★**N. Y., New York**—Courthouse—Bd. Estimate, Municipal Bldg., let contract building brick, steel and stone, concrete foundation, on Centre, Worth, Baxter and Pearl Sts., to Rodgers & Hagerty, Inc., 103 East 125th St., $1,900,000. Noted June 3.

★**N. Y., New York**—Office—C. Banks, 14 West 40th St., let contract building 16 story, brick, steel and stone, concrete foundation, on 40th St. near 6th Ave., to Leddy & Moore, 105 West 40th St.

★**N. Y., New York**—Office—Natl. Park Real Estate Corp., 32 Union Sq., will build 26 story, brick, steel and stone, concrete foundation, at 7-11 Water St. Work will be done by day labor. Noted April 15.

N. J., Trenton—Capitol—State Comrs. received bids June 22, for general contract building east wing, 4 story, 50 x 300 ft., rein.-con., brick, steel and limestone, rein.-con. flooring, on West State St., from L. Bossi Eng. Co., 43 West 27th St., New York City, $473,994; Standard Constr. Co., 1713 Sansom St., Phila., $484,600. Noted June 10.

N. J., Vineland—Dormitory—State Comrs. Trenton, received bids June 22, for general contract building 3 story, 53 x 104 ft., rein.-con., brick and steel, rein.-con. flooring, at Feeble Minded Institute here, from G. W. Shaner & Sons, Palmyra, $108,030; W. R. Graham and J. H. Wells, 3649 Filbert St., Phila., $110,449; J. D. Pasquale, Vineland, $117,556. Noted June 10.

★**Pa., Pittsburgh**—Sales and Service—Highland Automobile Co., 5928 Penn Ave., let contract building 2 and 3 story, brick and steel, rein.-con. flooring, on Liberty St. and Central Ave., to Toupet, Biel & Conley, 5814 Ellsworth Ave. About $400,000.

★**Md., Baltimore**—Exchange—Chesapeake & Potomac Telephone Co., 5 Light St., let contract building concrete, brick and stone, concrete foundation, on Kate Ave., to Frainie Bros. & Haigley, 18 Clay St. Cost, including equipment, $250,000. Noted June 3.

★**S. C., Charleston**—Infirmary—Todd, Simmons & Todd, archts., Broad St., let contract to McDevitt & Fleming Co., 309-11 1st Natl. Bank Bldg., Chattanooga, Tenn., constructing Thompson Memorial Infirmary, on Calhoun and President Sts., 3 story, 35 x 102 ft., brick. About $125,000. Noted Nov. 27.

★**O., Canton**—School—Bd. Educ. let excavating, masonry, steel, fire proofing, roofing and carpentry work contracts for 2 story, 150 x 250 ft. yellow buff brick and limestone, on 14th St. and Oxford Ave., to R. H. Evans Co., Tuscarawas St. W., $179,024. Noted June 3.

★**O., Cleveland**—Hotel—I. Margolin, 10527 Churchill Ave., let carpentry contract building 8 story, 45 x 220 ft., brick, steel and concrete, rein.-con. flooring, concrete foundation, on East Blvd., to P. Margolin, 8023 Central Ave.; masonry work will be done by day labor. About $1,500,000. Noted April 29.

★**Mich., Grand Rapids**—School—St. Adelbert Church let contract building 3 story, 120 x 220 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, to J. McNabb & Son, 202 Murray Bldg.

★**Ill., Chicago**—Bank—Albany Park Natl. Bank, c/o C. Hatzfeld, archt., 7 South Dearborn St., let contract building 1 story, 50 x 125 ft., concrete and brick, concrete foundation, on Bernard and Lawrence Aves., to C. W. Gindale, 3333 LaSalle St. About $100,000. Noted May 13.

★**Ill., Elgin**—Horological—Elgin Natl. Watch Co. let masonry contract for 3 story, 50 x 118 ft. brick, stone and terra cotta, rock foundation, on Grove Ave., to Giertz & Sons; carpentry contract, to F. L. Ackman, both of Elgin. Total cost, $100,000.

★**Ia., Iowa City**—Store—H. E. Hunter, archt., Cedar Rapids, let contract building brick and steel, concrete foundation, to T. Stark & Co., Cedar Rapids. About $125,000, owner's name withheld.

Minn., Minneapolis—Chemistry—D. F. Mullen, secy. State Bd. Control, St. Paul, received bids June 15, building 3 story, rein.-con., brick and Bedford stone addition, at University of Minnesota, here, from Gauger-Korsmo Constr. Co., 301 Endicott Bldg., St. Paul, $225,994, J. Peterson, 3152 16th Ave. S., Minneapolis, $247,800, J. and W. A. Elliott, 906 Lumber Exch. Bldg., $254,725.

★**Minn., Minneapolis**—School—Bd. Educ. let general contract building Miles Standish School, 2 story, 75 x 229 ft., on 22nd Ave. S., to Madsen Constr. Co., 848 Builders Exch., $162,477, heating, to H. Kelly & Co., 927 Plymouth Bldg., $30,135; general contract building Minnehaha School, 2 story, 75 x 210 ft. on 31st St. and 29th Ave., to F. G. McMillan, 2 Southeast 5th St., $145,448, heating and ventilating, to Bjorkman Bros., 712 South 10th St., $29,025.

★**Minn., Jordan**—School—Bd. Educ. let contract building 2 story, 67 x 110 ft. rein.-con. to Bracker Constr. Co., 638 Builders Exch. Bldg., Minneapolis. About $100,000; cost plus percentage basis.

★**Mo., St. Louis**—School—Bd. Educ., 911 Locust St., let contract building 2 story, 132 x 175 ft., rein.-con. and brick, at 226 South Euclid St., to Kellerman Contg. Co., International Life Bldg. About $312,000.

★**Okla., Frederick**—Court House—Tillman Co. let contract building 4 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to C. M. Dunning Constr. Co., Oklahoma. About $250,000; cost plus percentage basis. Noted June 3.

★**Wash., Seattle**—School—Bd. Educ. let contract building 3 story, concrete and brick, at foot of Holly St., to Butler Constr. Co., Central Bldg., $103,425.

★**Ont., Sudbury**—High School—Bd. Educ. let contract building 3 story, 11 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Sherwood & Sherwood, Harbor Bldg., Toronto. About $225,000. Noted May 13.

★**Ont., Sudbury**—School—Bd. Educ. let contract building 2 story, 8 room, concrete, brick and steel, rock foundation, to Linklator & Jackson, Stafford Bldg. About $100,000.

★**Ont., Toronto**—Hotel—United Hotels Ltd., King Edward Hotel, let general contract building 20 story, 500 room, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on King St., E., to P. H. Secord & Sons, 133 Nelson St., Brantford. About $2,000,000; cost plus percentage basis. Noted Apr. 15.

Federal Government Work

PROPOSED WORK

Conn., New London—Relaying Water Line—Spec. 4244—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to relay water line from Colver Pond to Submarine Base, here. About $7,000.

N. J., Lakehurst—Electric Traveling Platforms and Hoists—Spec. 4233—Bureau Yards & Docks, Navy. Dept., Wash., D. C., received no bids building for dirigible hangar, at Naval Air. Sta., here. Noted June 17.

BIDS DESIRED

N. Y., Buffalo—Sand, Gravel, Crushed Limestone, etc.—Until July 8, by Supt. Lighthouses, furnishing and delivering sand, gravel, crushed limestone and 500 bbl. American Portland cement, at Fairport Harbor, O.; advertised in this issue.

N. Y., Oswego—Alterations to Post Office and Customhouse—Until July 15, by Treas. Dept., Wash., D. C., altering, here. J. A. Wetmore, superv. archt.

Pa., Pittsburgh—Steel Hull Derrick Boat—Until July 14, by U. S. Engr. Office, 2111 Farmers Bank Bldg., furnishing and delivering one 50 ton non-propelling steel hull derrick boat; advertised in this issue.

Del., Lewes—Boiler—Until July 22, by Treas. Dept., Wash., D. C., removing 2 boilers and furnishing and installing one 40 h.p. vertical tubular, high pressure boiler, at U. S. Quarantine Sta., Delaware Breakwater, here.

D. C., Wash.—Altering Building—Until July 6, by Treas. Dept., altering on northeast corner 15th and E Sts. J. A. Wetmore, superv. archt.

D. C., Wash.—Repairing Asphalt Pavements—Until July 12, by Dist. Comrs., 509 Dist. Bldg., repairing for 1 and 2 year period, beginning July 1, 1920; advertised in this issue.

D. C., Wash.—Sheet Asphalt Pavements—Until July 12, by Dist. Comrs., 509 Dist. Bldg., laying 65,000 sq.yd. sheet asphalt pavements; advertised in this issue.

Va., Front Royal—Post Office—Until Aug. 13, by Treas. Dept., Wash., D. C., building, here. J. A. Wetmore, superv. archt.

La., New Orleans—Widening and Deepening—Until July 30, by U. S Engr. Office, Custom House, widening and deepening portion of Intracoastal Waterway between Calcasieu River, La., and Sabine River, La. and Tex.; advertised in this issue.

La., Opelousas—Removing Old Conduit, etc.—Until July 5, by Treas. Dept., Wash., D. C., removing old conduit, wiring and lighting fixtures and furnishing and installing new ones, in U. S. Courthouse and Post Office, here. J. A. Wetmore, superv. archt.

O., Cleveland—Removing Present Conduit, etc.—Until July 15, by Treas. Dept., Wash., D. C., removing present conduit, wiring and lighting fixtures and furnishing and installing new ones, at U. S. Marine Hospital, here. J. A Wetmore, superv. archt.

O., Cleveland—Repairing Breakwater and Placing Riprap—Until July 19, by U. S. Engr. Office, Federal Bldg., repairing rubble mound east breakwater and placing riprap in front of west breakwater, at Cleveland Harbor. Former bids rejected; advertised in this issue. Noted June 24.

Ia., Des Moines—Remodeling Post Office—Until July 20, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

Mo., St. Louis—Repairing Boiler Plant—Until July 16, by Treas. Dept., Wash., D. C., repairing, at U. S. Marine Hospital, here.

Utah, Park City—Post Office—Until Aug. 2, by Treas. Dept., Wash., D. C., building, here. J. A. Wetmore, superv. archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Ft. Williams**—Wire Fence—U. S. Engr. Office, War Dept., Wash., D. C., let contract building, here, to C. Profenno, Portland, $14,240.

★**R. I., Newport**—Hangar, Wooden Pier, etc.—Spec. 4152—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building hangar, wooden pier and foundation for kite balloon hangar, at Naval Air Sta., here, to Hyde & Baxter, 711 13th St., N.W., Wash., D. C., $34,000 (120 days). Noted June 10.

★**R. I., Providence**—Dredging—U. S. Engr. Office let contract dredging in Housatonic River, Conn., to T. A. Scott Co., Inc., 2929 Pequot Ave., New London, Conn., $9,600. Noted May 27.

★**R. I., Providence**—Maintenance Dredging—U. S. Engr. Office let contract for maintenance dredging at Saybrook Bar, at mouth of Connecticut River, Conn., to J. S. Packard Dredging Co., 1004 Turks Head Bank Bldg., $51,450. Noted May 20.

★**N. Y., Rockaway**—Elevating and Extending Marine Railway—Spec. 4184—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract elevating and extending marine railway, at Naval Air Sta., here, to A. M. Hazel, 26 Courtlandt St., New York City, $11,873 (90 days). Noted June 10.

N. J., Cape May—Repairing Power House Equipment—Spec. 4235—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids repairing at U. S. Naval Section Base, here, from G. E. Eng. Co., 22 Leight St., New York City, $5,482 (90 days); G. S. Curtis, Cape May, $3,552 (75 days). F. J. Eisinger, 141 7th Ave., Brooklyn, $4,281 (90 days).

★**N. J., Lakehurst**—Power Plant Equipment—Spec. 4128—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract furnishing and installing at Naval Air Sta., here, to Lord Electric Co., 105 West 40th St, New York City, $391,205 (300 days). Noted June 10.

★**N. J., Lakehurst**—Quarters Shop and Power House—Spec. 4082—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing at Naval Air Sta., here, to Hughes Foulkrod Co., 1406 Commonwealth Trust Bldg., Phila., $477,000 (240 days). Noted June 10.

★**Pa., Phila.**—Fence and Gates—Spec. 4187—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Navy Yard Hospital, here, to Cyclone Fence Co., 403 Stock Exch. Bldg., $52,052. Noted June 17.

Pa., Phila.—Mattress Factory—Spec. 4163—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 23, building, here. (1) work complete, from M. Melody & Son, 1322 Race St., (late bid), (1) $167,800, (1a) $164,284, (1b) $157,885, (3) add $50, deduct $21.25, (4) add $1.75, deduct $.85; T. Reilly Co., 1616 Thompson St., (1) $176,943 (210 days), (2) deduct $2,000, (1a) deduct $7,400, (1b and 2a) deduct $14,800 (10 days), (2) $2 deduct $.75; Hughes Faulkrod Co., 1406 Commonwealth Trust Bldg., (1) $179,100 (240 days), (2) $176,200 (240 days), (1a) $7,346, (1b and 2a) $14,518, (2b) $15,268, (3) add $60, deduct $40, (4) add $2.10, deduct $.65; W. R. Dougherty, 1608 Sansom St., (1) $200,137 (240 days), (2) $197,667 (240 days), (1a) $8,000, (1b) $16,000, (3) add $60, deduct $26, (4) add $2, deduct $.75. Noted June 17.

★**Pa., Phila.**—Repairing Roof Coverings—Spec 4231—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract, repairing of storehouse 332, to Warren Ehret Co., 36th St. and Grays Ferry Ave., $3,989 (45 days). Noted June 17.

★**Pa., Phila.**—Resurfacing Macadam Roads—Spec. 4230—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract, to Curtis Bro., Sharon Bldg., Tacony, $3,732 (30 days). Noted June 17.

Federal Government Work (Continued)

★Pa., Phila.—Steam Distributing System—Spec. 4220—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract, installing in main eastern section, here, to W. G. Cornell Co., Colonial Trust Bldg., $16,270 (120 days). Noted June 17.

★D. C., Anacostia — Main Interceptor — Dist. Comrs., 509 Dist. Bldg., Wash., D. C., let contract building in Sewer Sect. 12, to W. F. Brenizer, 101 New York Ave., N.E., Wash., D. C., $4,800.

D. C., Wash.—Alterations and Additions to Laboratory—Spec. 4182—Bureau Yards & Docks, Navy Dept., Wash., D. C., received only bid altering and building additions to aeronautical engine testing laboratory, at Navy Yard, from Hyde & Baxter, 711 13th St., N. W., $14,990 (140 days).

★D. C., Wash.—Conduit—U. S. Eng. Office, War Dept., let contract furnishing 2 in. fibre, to Fibre Conduit Co., Orangeburg, N. Y., $7,558.

★D. C., Wash.—Searchlight Towers—U. S. Eng. Office, War Dept., let contract furnishing 3 steel searchlight towers, to Cleveland Iron Wks., Baltimore, Md., $11,192.

★D. C., Wash. — Trunk Sewer — Dist. Comrs., 509 Dist. Bldg., let contract building trunk sewers in Connecticut Ave. between Kanawha and McKinley Sts., to W. F. Brenizer, 101 New York Ave., N.E., $30,000.

Va., Hampton—Steel Hangar, Barracks, etc.—Constr. Div., War Dept., Wash., D. C., received bids June 25, constructing (1) buildings, (2) roads, (3) sewers and water systems, (4) work complete, from Stang & Mitchell, Phila., (4) $914,000; P. F. Gormely Constr. Co., Union Trust Bldg., Wash., D. C., (1) $635,000, (2) $127,000, (3) $162,000, (4) $930,000; G. E. Wyne, Home Life Bldg. Wash., D. C., (1) $676,000, (4) $989,000; Boyle-Robertson Constr. Co., Evans Bldg., Wash., D. C., (1) $701,996, (2) $140,648, (3) $157,340, (4) $999,984; W. Curridor Constr. Co., Norfolk, (1) $117,700. Noted May 13.

★Va., Hampton Roads — Landing Platform—Spec. 4223—Bureau Yards & Docks, Navy Dept., Wash., D. C., building, at Naval Air Sta., here, to Hyde & Baxter, 711 13th St., N.W., Wash., D. C., $49,890 (150 days). Noted June 10.

Va., Norfolk—Mechanical Equipment—Treas. Dept., Wash., D. C., received bids June 21, installing, at health hospital, Sewell's Point, here, from S. W. Rittenhouse, 1316 Harvard St., N. W., Wash., D. C., $165,863, alternate 1, deduct $2,139, (2) add $1,366; W. G. Cornell Co., 923 12th St., N. W., Wash., D. C., $190,500 alternate (1) deduct $2,860, (2) $150; G. E. Eng. Co., 22 Leight St., New York City, $197,982, alternate (1) deduct $2,880, (2) deduct $500. Noted June 3.

★Va., Norfolk—Roads and Walks—Spec. 4203—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, at Naval Hospital, here, to G. E. Eng. Co., 22 Leight St., New York City, $29,934 (120 days). Noted June 17.

★Va., Quantico — Roads and Altering Buildings — Spec. 4202 — Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing concrete roads and altering buildings, here, to McLean Contg. Co., Fidelity Bldg., Baltimore, Md., $164,498 (180 days). Noted June 17.

★Va., Quantico—Storehouses, Garage and Kite Balloon Hangar—Spec. 4225—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Marine Flying Field, here, to McLean Contg. Co., 1415 Fidelity Bldg., Baltimore, Md., $42,000 (150 days). Noted June 10.

W. Va., South Charleston — Railroad Track Scales—Spec. 4207—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 23, furnishing and installing, at Naval Ordnance Plant, here, (1) work complete, from Strait Scale Co., Shauney and Adams Sts., Kansas City, Kan., (1) $10,340 (120 days), (2) $3,270 (100 days), (3) $1,170 (100 days), (4) $1,490 (90 days), (5) $630 (80 days), (6) $220 (80 days), (7) $1.50; Fairbanks Scale Co., 416 Broome St., New York City, (1) $1,749, (2) $17,300, f.o.b. Noted June 10.

★S. C., Charleston—Gyro Room and Torpedo Racks—Spec. 4159—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract, building, here, to Donnell-Zane, 350 Bway., New York City, $15,393 (120 days).

★S. C., Paris Island—Automatic Sprinkler System—Spec. 4213—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing at Marine Barracks, here, to Globe Automatic Co., 2035 Washington Ave., Phila., $32,800. Noted June 10.

★S. C., Paris Island—Concrete Walks—Spec. 4206—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building additions, at Marine Barracks, here, to Newport Contg. & Eng. Co., Law Bldg., Newport News, Va., $13,000 (100 days). Noted June 10.

★S. C., Paris Island—Fresh Water Main—Spec. 4219—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing 8 in. at Marine Training Camp, here, to Noland Clifford Co., 330 28th St., Newport News, Va., $54,789 (150 days). Noted June 10.

★S. C., Paris Island—Overhang and Gratings—Bureau Yards & Docks Navy Dept., Wash., D. C., let contract for overhang on north side of Bldg. 11 and gratings for buildings at Marine Barracks, here, to Newport News Contg. & Eng. Co., Law Bldg., Newport News, Va., $23,217 (120 days). Noted June 24.

S. C., Paris Island — Power Plant Improvements—Spec. 4211—Bureau Yards & Docks, Navy Dept., Wash., D. C., received only bid June 21, improving at Marine Barracks, here, (1) work complete, from Noland Clifford, 330 28th St., Newport News, Va., (1) $149,452 (225 days), (2) deduct $2,000, (3) $5,000. Noted June 10.

★S. C., Paris Island—Remodeling Quarters and Fireproofing Buildings—Spec. 4212—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract remodeling and fireproofing, at Marine Barracks, here, to Newport News Contg. Co., Law Bldg., Newport News, Va., $56,689 (150 days). Noted June 17.

★S. C., Paris Island—Repairs to Roof—Spec. 4238—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract repairing roofs of various buildings at Marine Corps Barracks, here, to Newport Contg. & Eng. Co., Inc., Law Bldg., Newport News, Va., $22,680.

★Fla., Pensacola—Additional Stowage—Spec. 4170—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing, in existing torpedo storehouse, here, to C. H. Turner Co., 17½ South Palafox St., $11,125 (120 days). Noted June 17.

Fla., Pensacola—Dirigible Hangar—Spec. 4172—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 21, for additional permanent construction, at Naval Air Sta., here, from Pensacola Shipbuilding Co., Blount Bldg., $146,500 (90 days), (2) $60,000, (3) $12,000; Hyde & Baxter, 711 13th St., N. W., Wash., D. C., (1) $176,181 (240 days), (2) deduct $107,240 (90 days), (3) deduct $5,750 (10 days), (4) $1,240 (180 days). Noted June 10.

★Tex., Ft. Worth—Gate Boxes—Spec. 4216—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building along line of natural gas pipe line between here and Petrolia, to Echole Bros., 1010½ Main St., $5,257 (40 days). Noted June 17.

Wash., Puget Sound—Auxiliary Equipment and Piping—Spec. 4179—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 23, furnishing and installing for air compressor, here, from Carroll Electric Co., 714 12th St., Wash., D. C., $49,800 (180 days); C. C. Moore & Co., Sheldon Bldg., San Francisco, Cal., $59,861 (240 days). Noted June 17.

★Cal., Mare Island—Fence and Gates—Spec. 4197—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Naval Hospital, here, to Standard Fence Co., 310 12th St., Oakland, $14,784 (60 days). Noted June 17.

★Cal., Mare Island—Paving—Spec. 4209—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract paving various streets, here, to United Constr. Co., Vallejo, $30,365 (80 days). Noted May 27.

Cal., Mare Island—Paving—Spec. 4209—Pub. Wks. Office, received bids June 16, paving various streets, from United Constr. Co., Vallejo, $16,925; Clinton Constr. Co., 140 Townsend St., San Francisco, $20,200.

Miscellaneous

PROPOSED WORK

River Terminals—Nashville, Tenn.—City having plans prepared by Freeland, Roberts & Akers, consult. engrs., 1212 Independent Life Bldg., constructing river terminals, to include piers, warehouses, stockyards, side tracks and roads. About $300,000.

Breakwater—Chicago, Ill.—South Park Comrs., 57th St. and Cottage Grove Ave., plan to build 1 mi. breakwater in Lake Michigan to provide room for approximately 8,000,000 cu.yd. of fill; to be in three sections; off 15th, 35th and 59th Sts. L. White, ch. engr.

Timber, Castings, Steel, etc.—Milwaukee, Wis.—See "Bridges under Contracts Awarded."

Steam Shovel, etc.—Shoshoni, Wyo.—Wyoming Chemical Products Co., Duluth, Minn., plans to purchase 1 small steam shovel, 2 mi. narrow gage railroad and dump cars. W. G. Wey, Shoshoni, engr.

Vaults—Toronton, Ont.—Canadian Bank of Commerce, Yonge St., plans to build 2 story, rein.-con., brick and steel and marble, rein.-con. flooring, concrete foundation, on Atlantic Ave. About $100,000. Architect not selected.

Gas System—Wallaceburg, Ont.—Wallaceburg Gas Co., Duncan St., plans to construct natural gas distribution system. About $75,000. Engineer not selected.

BIDS DESIRED

Gate Valves—Boston, Mass.—Until July 8, by city, furnishing twenty 16 in. gate valves.

Bleachers — New Bedford, Mass. — Until July 8, by Park Bd., building concrete bleachers at Buttonwood Park. About $25,000. Brown & Poole, New Bedford, engrs.

Bleachers — New Bedford, Mass. — Until July 7, by Park Bd., building concrete bleachers at Victory Park. About $25,000. Brown & Poole, New Bedford, engrs.

Road Materials—St. George, S. I., N. Y.—See "Streets and Roads."

Foundation — Akron, O. — J. Ebersole, archt., 64 East Van Buren St., Chicago, Ill., receiving bids building concrete foundations for 10 story, 133 x 225 ft. hotel and 1 story, 109 x 185 ft. theatre, here, for Akron Prospect Co.

Dock—Milwaukee, Wis.—Rockwell Mfg. Co., 572 Park St., receiving bids for 230 ft. pile and concrete dock, 3 ft. wide, capped piles. F. E. Gray, 86 Michigan St., archt.

Culverts—Toronto, Ont.—Until July 7, by W. A. McLean, deputy minister of highways, Parliament Bldgs., constructing concrete culverts in Edwardsburg Twp., Sect. C, (Contr. 93); Oxford Twp., Sect. A (Contr. 94); Marlborough and North Gower Twps., (Contr. 95); North Gower Twp., Sect. A ,(Contr. 96); North Gower and Nepean Twps. (Contr 97), and Nepean Twp., Sect. B, (Contr. 98). About $70,000. G. Hogarth, Parliament Bldgs., engr. Cement and steel supplied by province. Noted May 6, under "Bridges."

Equipment — Vancouver, B. C. — Harbor Comrs. receiving bids for equipment for dredging and filling. W. G. Swan, 712 Pender St., W., engr.

Pier and Transit Sheds—Vancouver, B. C.—Until Aug. 7, by Harbor Comrs., building 350 x 1,200 ft. rein.-con. pier and transit sheds (to be known as Ballantyne Pier), involving 14,200 cu.yd. earth excav., 59,500 cu.yd. earth fill, 56,000 cu.yd. rein.-con., 30,000 cu.yd concrete, 27,000 lin.ft. wood piling, 900 lin.ft. clay pipe, 30 tons steel in girders, 28 tons steel ⅜ in. plate column protectors, 434,000 sq.ft. ⅜ in. asphalt, 750 tons wrought steel, and 380 tons new rails, etc. About $3,000,000. A. D. Swan, 10 Phillips Pl., Montreal, Que., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Piers—New York, N. Y.—M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., let contract reconstructing pier and new freight pier at Stanton St., to Lustig & Weil, 103 Park Ave., $117,074. Noted June 10.

★Subway Subtrack—New York, N. Y.—J. H. Delaney, comr. transit constr., 49 Lafayette St., let contract completing Sect. 2, Route 8, of 14th St.—Eastern Rapid Transit extending under East 14th St. from Irving Pl. to Ave. B, to P. McGovern, 50 East 42nd St., $3,336,000. Noted June 24.

★Heating Apparatus, etc.—Olean, N. Y.—City let contract installing heating apparatus in Schools 1, 2, 3, 4 and 7, to Power Efficiency Corp., White Bldg., Buffalo, $148,201; excavating and building cold storage and boiler house in rear of Olean High School, to L. E. Corsett, Olean, $42,347.

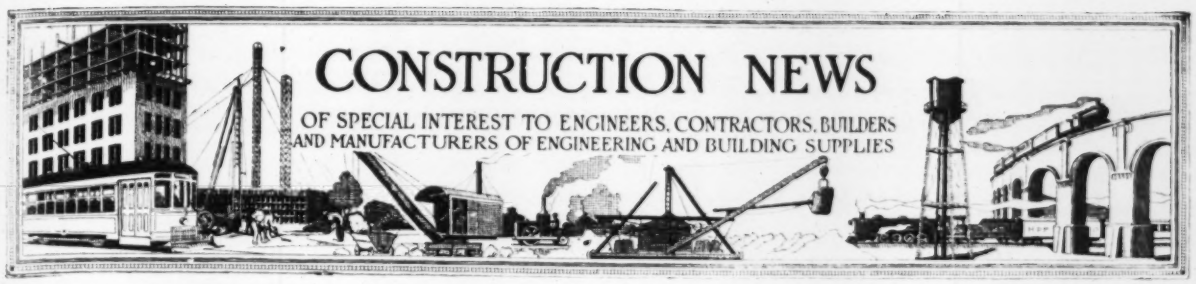
★Sheds—Stapleton, S. I., N. Y.—M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., New York City, let contract building freight shed at Piers 12 and 13, to Post & McCord, 101 Park Ave., New York City, $1,986,800; 15 and 16, to Snare & Triest, 8 West 40th St., New York City, $2,021,500; 17 and 18, to McHarg-Barton, 171 Madison Ave., New York City, $945,924. Noted June 3.

★Smokestack—Danville, Va.—Dan River & Riverside Cotton Mills, let contract building rein.-con. smokestack, 250 ft. high from foundation, 10 ft. diameter at smallest point, to Webber Chimney Co., Chicago.

★Steel Pipe—Pontiac, Mich.—City let contract furnishing 5,870 lin.ft. 48 in. lock bar steel for filtration plant, to East Jersey Pipe Corp., 350 21st Ave., Paterson, N. J., $12.65 per ft., total, $74,255.

Street Lighting System — Green Bay, Wis.—City received bid June 8, for ornamental street lighting system, from E. A. Brown & Co., 916 North 6th St., Kansas City, Kan., $38,576. Noted June 3.

★Slide Gates—San Francisco, Cal.—Bd. Pub. Wks. let contract furnishing and installing 33 x 42 in. slide gates for Hetch Hetchy Dam (Contr. 67), to Union Machine Co., 934 Brannan St., $170,000 plus $16 per day for foreman's services.



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
July 12	Buffalo, Minn.	July 1
July 12	Cherokee, Ia.	July 8
July 13	Albert Lea, Minn.	July 8
July 14	Maple Heights (Bedford P. O.), O.	July 8
July 15	Pipestone, Minn.	July 1
July 16	Trenton, N. J. Adv. July 8.	July 8
July 16	Cherokee, Ia.	July 8
July 19	Pleasant Ridge, Mich. Adv. July 8.	July 8
July 23	Akron, O.	June 24
July 30	Galveston, Tex. Adv. July 8.	July 8

SEWERS

July 12	Amery, Wis.	July 1
July 12	Milford, Mich.	June 24
July 13	Milwaukee, Wis.	July 8
July 14	Fairfield, Conn.	July 8
July 14	Phila., Pa.	July 8
July 14	Williamsport, Pa.	July 8
July 14	Maple Heights (Bedford P. O.), O.	July 8
July 19	Dallas, Ore.	May 27
Aug. 2	Pontiac, Mich.	July 1

BRIDGES

July 12	Chadds Ford, Pa.	June 24
July 12	Nevada	June 24
July 13	Wisconsin	July 8
July 15	Oswego, Kan.	July 8
July 15	Fond du Lac, Wis.	July 8
July 15	New York, N. Y.	July 8
July 19	Oroville, Cal.	July 8
July 20	Milledgeville, Ga.	July 8
July 21	Warrenton, Ga.	July 8
July 21	Frederica, Del. Adv. July 1 and 8.	July 1
July 22	Camilla, Ga.	July 8
July 30	Banff, Alta.	July 8

STREETS AND ROADS

July 12	Fergus Falls, Minn.	June 17
July 12	Madison, W. Va.	June 17
July 12	Auburn, N. Y.	June 24
July 12	Troy, Kan.	June 24
July 12	Baltimore, Md.	June 24
July 12	Brainerd, Minn.	July 1
July 12	Olympia, Wash.	July 1
July 12	Auburn, N. Y. Adv. July 8.	July 8
July 12	Johnstown, N. Y. Adv. July 8.	July 8
July 12	Hollidaysburg, Pa.	July 8
July 12	Baltimore, Md. Adv. July 8.	July 8
July 12	Beckley, W. Va.	July 8
July 12	Fairmont, Minn.	July 8
July 12	Alexandria, Minn.	July 8
July 12	Shorewood (Milwaukee P. O.), Wis.	July 8
July 12	Richmond, Tex.	July 8
July 12	Yonkers, N. Y.	July 8
July 13	Redwood Falls, Minn.	July 1
July 13	Ft. Scott, Kan.	June 24
July 13	Ft. Scott, Kan.	July 1
July 13	Grand Forks, N. D.	July 8
July 13	Long Prairie, Minn.	July 8
July 13	Wisconsin	July 8
July 14	Ontario	July 1
July 14	Baltimore, Md.	June 24
July 14	Tavares, Fla.	June 10
July 14	Mora, Minn.	June 24
July 14	Camden, N. J. Adv. July 8.	July 8
July 14	Winder, Ga.	July 8
July 14	Greenville, Tex.	July 8
July 14	Hillsboro, N. D.	July 8
July 14	New York, N. Y.	July 8
July 14	Brooklyn, N. Y.	July 8
July 15	Austin, Tex.	July 1
July 15	Flemington, N. J.	June 24
July 15	Lawrenceville Ga.	July 8
July 15	Marietta, Okla.	July 8
July 15	Washington, Kan.	July 8
July 15	Montreal, Que.	July 8
July 15	New York, N. Y.	July 8
July 16	Nashville, Tenn.	July 1
July 16	Charleston, W. Va.	July 1
July 16	New Mexico	June 24
July 16	Missouri	July 8
July 17	New Mexico	June 24
July 17	Berkeley Springs, W. Va.	July 8
July 19	Okeechobee, Fla. Adv. July 1 and 8.	July 1
July 19	Silver Lake, O.	July 1
July 19	St. Clairsville, O.	July 8
July 19	Toronto, O.	July 8
July 19	Cocoa, Fla.	July 8
July 20	Moundsville, W. Va.	July 1
July 20	Berkeley Springs, W. Va.	July 8
July 20	North Carolina	July 8
July 21	Springfield, Ill. Adv. July 8.	July 8
July 22	New Brunswick, N. J. Adv. July 8.	July 8
July 23	Garden City, Kan.	June 24
July 23	Missouri	July 8
July 24	Crowley, La. Adv. July 1 and 8.	July 1
July 25	Ohio	July 1
July 28	Freehold, N. J. Adv. July 8.	July 8
July 30	Davidson, Sask.	July 8
Aug. 5	Ft. Myers, Fla. Adv. July 8.	July 8

EXCAVATION AND DREDGING

July 14	Emmetsburg, Ia.	July 8
July 15	Carroll, Ia.	July 8
July 17	Belzoni Miss.	June 24
July 19	Cape Girardeau, Mo. Adv. July 8.	July 8
July 20	Rensselaer, Ind.	July 8
July 20	Mason City, Ia.	July 8
July 21	Marcy, N. Y. Adv. July 8.	July 8
July 27	Le Mars, Ia. Adv. July 8.	July 8
Aug. 4	Marengo, Ia. Adv. July 8.	July 8

INDUSTRIAL WORKS

July 10	Brooklyn, N. Y.	July 8
July 12	Butler, N. J.	July 1
July 13	Baltimore, Md.	July 8
July 14	Cleveland, O.	July 8
July 15	Cleveland O.	July 8
July 19	Brooklyn, N. Y.	July 8
July 25	Fargo, N. D.	July 8
Aug. 1	Cambridge, Mass.	July 8
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

July 10	Milltown, N. B.	July 8
July 10	New York, N. Y.	July 8
July 12	St. Paul, Minn.	July 1
July 12	Far Rockaway, N. Y.	July 8
July 13	South Milwaukee, Wis.	July 8
July 14	Washington, D. C.	July 8
July 14	Warren, O.	July 8
July 15	Montreal, Que.	July 8
July 15	Wake Forest, N. C.	July 1
July 15	Jonesboro, Ark.	May 27
July 15	Coleraine, Minn.	June 10
July 15	Wilmington, N. C.	July 1
July 15	Kalamazoo, Mich.	July 8
July 15	Brooklyn, N. Y.	July 8
July 16	Fullerton, Cal.	June 17
July 19	Montreal, Que.	July 8
July 19	Marble, Minn.	July 8
July 19	Emporia, Kan.	July 8
July 19	Ipswich, S. D.	July 8
July 20	Roselle Park (Elizabeth P. O.), N. J.	July 1
July 20	Lake Park, Minn.	July 8
July 25	Liberty Center, Ia.	June 24
July 26	Lankin, N. D.	July 8
July 30	Oakes, N. D.	July 8
Aug. 1	Jamestown, N. D.	July 8
Aug. 1	Baltimore, Md.	July 8
Aug. 2	Salina, Kan.	June 17
Aug. 2	Media, Pa.	July 8
Aug. 9	Oberon, N. D.	July 8
Aug. 16	Sioux City, Ia.	June 17

FEDERAL GOVERNMENT WORK

July 12	Additions and Repairs to Conduit, etc.—Zanesville, O.	June 24
July 12	Repairing Asphalt Pavements—Wash., D. C. Adv. June 24 to July 8.	July 1
July 12	Sheet Asphalt Pavements—Wash., D. C. Adv. June 24 to July 8.	July 1
July 12	Wharf, Bulkhead, etc.—Cape Charles, Va.	July 8
July 14	Seagoing Hopper Dredge Sabine—Galveston, Tex. Adv. June 17 to July 8.	June 17
July 14	Steel Hull Derrick Boat—Pittsburgh, Pa. Adv. July 1 and 8.	July 1
July 14	Kitchen and Commissary Equipment—Spec. 4177—Brooklyn N. Y.	July 8
July 14	Excavating Canal—Colusa, Cal.	July 8
July 14	Road Work—Idaho	July 8
July 15	Removing Present Conduit, etc.—Cleveland, O.	July 1
July 15	Galvanized Wire, Wire Strand, Staples and Wire Rope Clips — Memphis, Tenn. Adv. June 24 to July 8.	June 17
July 15	Dredging — Wilmington, Del. Adv. June 17 to July 8.	June 17
July 15	Gate and Valve Operating Machinery — Pittsburgh, Pa. Adv. June 24 to July 8.	June 24
July 15	Portland Cement—Memphis, Tenn. Adv. July 1 and 8.	July 8
July 16	Repairing Boiler Plant — St. Louis, Mo.	July 1
July 19	Repairing Breakwater and Placing Rip Rap—Cleveland, O. Adv. July 1 and 8.	July 1
July 21	Pier—Spec. 4165—Guantanamo, Cuba Adv. July 8.	July 8
July 21	Sewers—Wash., D. C. Adv. July 8.	July 8
July 21	Railroad—Ogden, Utah Adv. July 8.	July 8
July 24	Dredging — New York, N. Y. Adv. June 24 to July 8.	June 24
July 27	Surface Drainage System, etc.—Galveston, Tex. Adv. July 8.	July 8
July 28	Remodeling Post Office and Customhouse—Fall River, Mass. Adv. July 8.	July 8

Bids Close		See Eng News-Record
July 28	Extending Workroom—Chattanooga, Tenn.	July 8
July 29	Remodeling Customhouse and Post Office—Astoria, Ore.	July 8
July 30	Widening and Deepening — New Orleans, La. Adv. July 1 and 8.	July 1
July 30	Remodeling Post Office—Battle Creek, Mich.	July 8
July 30	Superstructure — Wash., D. C. Adv. July 8.	July 8
Aug. 11	Temporary Storehouse — Spec. 4229—Pearl Harbor, H. T. Adv. July 1 and 8.	July 8

MISCELLANEOUS

July 12	Tractors, Elevating Graders and Dump Wagon—Wadena, Minn.	June 17
July 12	Road Materials—New York, N. Y.	July 8
July 12	Truck—St. George, S. I., N. Y.	July 8
July 13	Dam—Summer Lake, Ore.	July 8
July 13	Gate Boxes, Covers, etc. — Jersey City, N. J.	July 8
July 15	Road Grader—Mott, N. D.	July 8
July 15	Truck—Fond du Lac, Wis.	July 8
July 15	Foundation—Ottawa, Ont.	July 8
July 20	Terminal Freighthouse — New York, N. Y. Adv. June 24 to July 8.	June 24
July 20	Conduits, etc. — Detroit, Mich.	July 8
July 20	Breakwater — Cape Bald, N. B.	July 8
July 23	Steam Pump — Trenton, N. J. Adv. July 8.	July 8
July 29	Dam—Inlet, N. Y. Adv. July 8	July 8
Aug. 7	Pier and Transit Sheds — Vancouver, B. C.	July 1

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Marcy — State Hospital Comn., Capitol, Albany, soon receives bids building filter pump house, sedimentation basin, filter and apparatus, chlorinating and pumping apparatus, storage reservoir, dam, 3-12 in. c.i. pipe line, etc., for Utica State Hospital. About $400,000.

Mich., Buchanan—City plans to extend waterworks system, to include installation 2 new pumps. Burd & Griffels, Kelsey Bldg., Grand Rapids, engrs.

Mich., Durand — City having tentative plans prepared by R. A. Murdoch, engr., Free Press Bldg., Detroit, for improving waterworks equipment, laying water mains and building electrical driven pumping addition. About $50,000.

Ill., Newton—City plans to extend waterworks system, to include new filter plant. About $25,000. Fuller & Beard, Chemical Bldg., St. Louis, engrs.

Wis., River Falls—City having plans prepared for 150 ft. dam, 24 ft. high. About $25,000. L. P. Wolff, Guardian Life Bldg., St. Paul, Minn., engr.

Ia., Mason City—City election July 31, to vote on $300,000 bonds to improve waterworks system.

Minn., North Branch—See "Sewers."

★**Ariz., Phoenix**—City received no bids June 16, building infiltration intake system and installing 32 mi. 36-38 in. Redwood stave pipe line from here to a point on Verde River. Work will be done by day labor. About $400,000. Noted June 3.

Ont., Stamford—Township plans to build waterworks system, involving 5 mi. 6 in. c.i. pipe, elevated tank, pumps, etc. About $125,000. C. F. Munroe, Niagara Falls, clk.

BIDS DESIRED

N. J., Trenton—Until July 16, by Bd. Comrs., furnishing and installing new pumping equipment, consisting of centrifugal pump, motor and turbine driven generator. L. D. Hirsch, clk.; advertised in this issue. Noted June 24.

O., Maple Heights (Bedford P. O.)—Until July 14, by village, laying c.i. water mains in Pease, Maple and Granger Rds., Milo, Forest and Beech Aves., Libby and Granger Court and Elm Drive. Cost to exceed $25,000. C. G. Holtz, clk. C. W. Courtney, 509 Leader-News Bldg., Cleveland, engr.

Mich., Pleasant Ridge—Until July 19, by L. R. Kennedy, village clk., furnishing material and labor building 27,640 ft. 6-10 in. Class "B" c.i. pipe watermains; advertised in this issue.

Ia., Cherokee—Until July 12, by State Bd. Control, Des Moines, improving waterworks system at State Hospital, to include 5,000 ft. 8 in. pipe line, pump house, reservoir and pumping machinery. W. E. Buell, 229 Davidson Bldg., Sioux City, engr. Noted June 24.

Minn., Albert Lea—Until July 13, by city, building waterworks system, to include 2 motor driven centrifugal pumps with automatic controls, 2 air compressors and 2 motors with belt drive, 1 horizontal driven double suction pump, capacity 800 gal. per minute, against 50 ft. total head direct, connected to one 14 brake h.p. steam turbine. R. G. Lindgren, Albert Lea, engr. Noted June. 24.

Tex., Galveston—Until July 30, by J. D. Kelley, city secy., furnishing labor and material building concrete and steel reservoirs. H. Exall Elrod Co., Interurban Bldg., Dallas., engrs.; advertised in this issue. Noted June 17.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Buffalo—Comrs. Pub. Wks. received bids June 29, building storm water drainage system for Scajaquada Creek, from Buffalo Dredging Co., 1104 D. S. Morgan Bldg., $1,449,000; F. L. Cohen, 1002 Prudential Bldg., $1,465,000; Eastern Concrete Steel Co., D. S. Morgan Bldg., $1,490,800. Noted June 3.

★**N. Y., New York**—B. S. Coler, comr. Dept. Pub. Welfare, Municipal Bldg., let contract furnishing labor and material building and completing water supply system, etc., at Seaview Hospital, also sections of new mains at Farm Colony, Richond Boro, to N. D. Stefano, 257 Glenn Ave., Tompkinsville, S. I., $85,950. Noted July 1.

★**Tex., Cisco**—City let contract building hollow concrete dam across Clear Fork of Brazos River, 125 ft. high, ¼ mi. long, to H. F. Friestedt, Chicago, Ill., $915,000. Work involves 90,000 ft. c.i. pipe, 37,000 cu. yd. rein.-con., 90,000 cu.yd. earth and 5,000 cu.yd. rock excav., 20,000 cu.yd. overhaul, 12,000 lb. asphalt, 50M ft. lumber, etc. Noted June 24.

★**Tex., Ft. Worth** — See "Industrial Works."

★**Wash., Fairfield**—City Council let contract building complete waterworks system, steel construction, circulating type, to Standard Asphalt & Paving Co., 517 North Lincoln St., Spokane, $43,586.

★**Wash., Wenatchee** — City let contract building filtration and pumping plant, 3,000,000 gal. daily capacity, to California Filter Co., Spokane. About $60,000. Noted May 20.

Sewers

PROPOSED WORK

N. Y., Marcy — State Hospital Comn., Capitol, Albany, soon receives bids constructing sewerage system, including filter beds, settling tank, 4-15 in. tile pipe, chlorinating apparatus, etc., at Utica State Hospital, here.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received no bids July 1, building temporary sanitary sewer and appurtenances in Seaside Blvd. Work will be readvertised.

O., Canton—City plans to build sewage disposal plant and small reservoir above beds for surplus water for flushing purposes, install battery in Imhoff tanks and extend storm water sewerage system. Future proposed improvements include duplication of present plant, building twin main truck sewer and additional sludge drying beds, etc. About $100,000. A. Sarver, city engr.

O., Oakwood—City plans to build sanitary sewers in various streets. Sewer Dist. 1, Oakwood Heights, involving 30,000 ft. 6-18 in. vitr. pipe. About $100,000. J. B. Allen, 606 U B Bldg., Dayton, engr.

O., Yorkville—City Council soon receives bids building sanitary sewerage system. About $75,000. K. Rothormund, engr.

Wis., Cumberland—City having plans prepared for sanitary sewerage system and disposal plant. About $80,000. L. P. Wolff, Guardian Bldg., St. Paul, engr.

Minn., North Branch—City having plans prepared by J. F. Druar, engr., Globe Bldg., St. Paul, for 25,000 ft. of sewers, also waterworks system, including tower tank, deep well and pump. About $75,000.

Minn., Wabasso—City having plans prepared by J. F. Druar, engr., Globe Bldg., St. Paul, for sewerage system. About $45,000.

Minn., West Concord—City having preliminary surveys made by L. P. Wolff, engr., 1000 Guardian Life Bldg., St. Paul, for sanitary and storm sewage system. About $40,000.

Ore., Portland—City had plans prepared and soon receives bids building sewers in Glisan St. from 10th St. to Willamette River, cost $42,670; East 65th St. from Hassalo to Willow Sts., $1,586; East 86th St. from East Ash and East Stark Sts., $2,665; East 20th St. from Prescott to Alberta Sts., $4,896; East 17th St. from Wygant to Alberta Sts., $1,494; East 22nd St. from Killingsworth Ave. to Dekum St., $35,981; East 18th St. from Prescott to Emerson Sts., $9,578; also Killingsworth Ave. and East 17th St. Sewerage System, $48,121; Ainsworth Ave. and Kerby St. Sewerage System, $39,582; Killingsworth and Vernon Aves. Sewerage System, $28,774. O. Laurgaard, city engr.

BIDS DESIRED

Conn., Fairfield—Until July 14, by S. I. Root, supt. of highways, laying 3,340 ft. 36 in. vitr. sewer pipe in Stratfield Dist.

Pa., Phila.—Until July 14, by J. C. Wagner, act. dir. Dept. Pub. Wks., building branch sewers (Schedule A); main sewers, Rock Run extension in Ontalauna and 18th Sts., 66th and 67th Aves., N., also in Ogontz Ave. (Schedule B); 12 in. c.i. pipe across Godfrey Ave., at 7th St. (Schedule C); Frankford Creek high level intercepting sewer-retaining walls along Wingohocking Creek (Schedule D). Noted July 1.

Pa., Williamsport—Until July 14, by B. C. Houck, city clk., building sewer in Seth St. from Rose Alley to point 325 ft. east, Penn St. from East Jefferson St. to Pennsylvania Canal and Boyd St. from Arch St. to alley west of Howard St., involving 2,000 ft. 10 in. vitr. pipe. About $30,000.

O., Maple Heights (Bedford P. O.)—Until July 14, by village, laying sewers and watermains and building concrete sidewalks on Clement Ave., vitr. and c.i. pipe. Cost to exceed $25,000. C. G. Holz, clk. C. W. Courtney, 509 Leader-News Bldg., Cleveland, engr.

Wis., Milwaukee—Until July 13, by Comr. Pub. Wks., furnishing material and laying sewers in Albert Pl. from Louis to Green Bay Aves., involving 2,555 ft. 8-12 in. vitr. pipe, 20 manholes, Atkinson Ave. from 15th to West 19th Sts., 3,712 ft. 8-15 in. vitr. pipe, 20 manholes, Center St. from 46th to 49th Sts., 1,181 ft. 15-24 in. vitr. pipe, 10 manholes, Center St. from 49th to 50th Sts., 380 ft. 15 in. vitr. pipe, 2 manholes, Elliott Circle from 58th to 59th Sts., 462 ft. 12 in. vitr. pipe and 2 manholes, Meinecke Ave. from 48th St. west, 208 ft. 24 in. vitr. pipe and 2 manholes, 19th St. from Atkinson Ave. south, 2,603 ft. 8-12 in. vitr. pipe, 20 manholes, 7th St. from Green Bay Ave. to Lake St., 3,750 ft. 8-21 in. vitr. pipe and 24 manholes, and Windsor Pl. from 60th St. to Elliott Circle, 181 ft. 12 in. vitr. pipe and 1 manhole. About $35,000. G. Stahl, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Boston—City received bids building sewer in (a) Market St., Brighton, (b) Public Alley 909, (c) Babcock St., from A. Cefalo, (a) $23,333, (c) $10,218; J. Tedesca, (a) $23,624, (c) $10,498; J. Barletta, (a) $25,410; T. Coughlin, (b) $11,132, (c) $11,311; W. M. Barrett Co., (b) $11,489; V. Grande, (b) $14,194.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract furnishing labor and material, repairing sewer in Greene Ave. between Lewis and Marcy Aves., to Brook

Sewers (Continued)

Jos. Alcatraz Co., 407 Hamburg Ave., $104,-[illegible]; Greene Ave. at Washington Ave., to Booth & Flynn, Ltd., 17 Battery Pl., New York City, $452,222; Bay Parkway from 81st to 82nd Sts., to Murphy Bros., $12,656. Noted June 17.

★**Tex., Ft. Worth** — See "Industrial Works."

★**Col., Ft. Morgan**—City let contract building storm sewers in various streets, to Craig-White Co., Sterling, $26,044. Noted May 20, under "Streets and Roads."

Bridges

PROPOSED WORK

N. J., Belmar — Bd. Freeholders Monmouth Co., Freehold, rejected bids building Strauss bascule bridge over Shark River, between here and Avon. About $91,000. Noted May 27.

O., Cleveland—Cuyahoga Co. election Nov. 2 to vote on $200,000 bonds to build 120 ft. concrete and steel bridge, 40 ft. wide, over Big Creek Valley. W. A. Stinchcombe, co. engr.

Wisconsin—State Highway Dept., Madison, had plans prepared for bridges in the following counties:

Barron Co., Beaver Creek Bridge, 8 x 20 ft., Dover Twp.

Bayfield Co., Pine Creek Bridge, 30 x 24 ft., Pilsen Twp.

Dane Co., Zoellner Bridge, 8 x 26 ft., Dane Twp., also Dane Co. Bridge 8 x 24 ft., Fitchburg Twp.

Iowa Co., County Line Bridge, 6 x 20 ft., Brigham Twp.

Iron Co., Shields Bridge, 10 x 20 ft., Saxon Twp.

Kenosha Co., Schreck Bridge, 8 x 24 ft., Salem Twp.

Kewaunee Co., Sipple Bridge, 8 x 24 ft., Carlton Twp.

Eau Claire Co., Stillman Bridge, 18 x 24 ft., Clear Creek Twp.

Jefferson Co., Coons Bridge, 10 x 20 ft., Hebron Twp.

Pierce Co., Bjornson Bridge, 16 x 22 ft., El Paso Twp., Meyers Bridge, 30 x 18 ft., Ellsworth Twp., also Olivet Bridge, 18 x 24 ft., Gilman Twp.

St. Croix Co., Klauser Bridge, 16 x 16 ft., Forest Twp., Church Bridge, 40 x 20 ft., Rush River Twp., Martin Bridge, 18 x 16 ft., Klowitter Bridge, 10 x 22 ft., and Hadden Bridge, 10 x 16 ft. All bridges to have rein.-con. spans and concrete abutments.

Que., St. Joseph de Beauce—Dept. Pub. Wks., Quebec, plans to build 85 ft. steel bridge, 22 ft. wide over Lac Saumon, on Beauce-Sherbrooke Rd. About $75,000. Address A. Galipeault, 115 St. Pierre St., Quebec.

Ont., Chaudiere—Dept. Pub. Wks., Ottawa, soon receives bids building steel bridge, below here. About $27,000.

Ont., Port Dover—Norfolk Co. having plans prepared by E. H. Darling, engr., Lister Bldg., Hamilton, for 120 ft. steel trunnion bascule lift bridge with 20 ft. roadway, over harbor. About $60,000.

BIDS DESIRED

N. Y., New York—Until July 15, by Park Bd., at office of Dept. Parks, Municipal Bldg., furnishing labor and material building North Island of Plaza at 5th Ave. between 59th and 60th Sts., Manhattan Boro., repaving with heavy traffic sheet asphalt on concrete foundation, center roadway of Bronx and Pelham Parkway, between Old White Plains and Boston Rds., Bronx Boro.

N. Y., New York—Until July 15, by Dept. Plants & Structures, Municipal Bldg., building Eastchester Bridge over Eastchester Creek. About 500,000. Former bids rejected. G. A. Whalen, comr. Noted July 1.

Ga., Camilla—Until July 22, by Bd. Rds. and Revenues, Mitchell Co., building 7 bridges, one 48 ft., one 144 ft., one 96 ft., one 64 ft., one 176 ft., one 96 ft., and one 32 ft. long, also 2 rein.-con. box culverts, on Dixie Highway, Federal Aid Project 95. Work involves 773.05 cu.yd. Class "A" and 707.66 cu.yd. Class "B" concrete, 129,692 lb. reinforcing steel, 1,350 cu.yd. wet and dry excav., and 1,300 sq.yd. Kentucky Rock Asphalt surfacing.

Ga., Milledgeville—Until July 20, by Bd. Comrs. Rds. and Revenues Baldwin Co., building 240 ft. bridge over Town Creek, 18 ft. wide on Milledgeville-Sandersville Rd. 12 mi. from here. Work involves 338.29 cu.yd. Class "A," and 96 cu.yd. Class "B" concrete, 45,088 lb. reinforcing steel, 1,188 lin.ft. concrete piles, 150 cu.yd. dry and 50 cu.yd wet excav. Alternate bid, 365.49 cu.yd. Class "A" and 204.24 cu.yd Class "B" concrete, 59,930 lb. reinforcing steel, 2,805 lin.ft. wood piles, 365 cu.yd. dry and 250 cu.yd. wet excav.

Ga., Warrenton—Until July 21, by Comrs. Rds. and Revenues, Warren Co., raising one 60 ft. span steel truss over Golden Creek, also building one 80 ft. bridge over Rocky Comfort Creek, one 20 ft. over Long Branch, one 40 ft. over Short Creek and one 20 ft. over Fowlers Branch. Work involves 222.07 cu.yd. Class "A" and 202.09 cu.yd. Class "B" concrete, 41,258 lb. reinforcing steel, 765 lin.ft. wood pile, 85 cu.yd. wet and 300 cu.yd. dry excav. Alternate bids will be received with the provision that State Highway Dept. is to furnish cement.

Wisconsin—Until July 13, by State Highway Dept., Madison, building 70 ft. span steel truss bridge at Sta. 81-18, on Benton-Shullsburg Rd., Federal Aid Project 137, Lafayette Co. Work involves 248 cu.yd. Class "B" and 26 cu.yd. Class "E" concrete 44,720 lb. structural steel, etc.

Wis., Fond du Lac—Until July 15, by A. Hunter, city clk., building 60 ft. steel plate girder bridge, on Western Ave. R. Peters, city engr.

Kan., Oswego—Until July 15, by Bd. Comrs. Labette Co., building 8 low water and 7 flat top bridges, involving 64,560 lb. reinforcing steel, 624 cu.yd. Class "A," 26 cu.yd. Class "B" and 414 cu.yd. Class "C" concrete. W. J. King, Oswego, engr.

Cal., Oroville — Until July 19, by State Highway Comn., 515 Forum Bldg., Sacramento, building substructure and rein.-con. approach spans to bridge across Feather River, near here, involving 1,850 cu.yd. mass of pier bases, including crib, caissons or cofferdam, 1,880 cu.yd. Class "C" and 470 cu.yd. Class "A" Portland cement concrete. Commission to furnish reinforcing steel, floor joint plates and Portland cement. A. B. Fletcher, state highway engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

New Jersey—State Highway Comn., Trenton, received bids June 28, building (a) Bridge C, and (b) Bridge D, on State Highway Route 2, Roebling-Bordentown Sect., Burlington Co., from Empire Eng. Co., 2218 Chestnut St., Phila., (a) $63,664, (b) $18,-482; East Jersey Bridge Co., 175 Smith St., Perth Amboy, (a) $54,281, (b) $22,550; H. W. Schrimpf, Lewis St., Perth Amboy, (a) $58,028, (b) $29,822; Selbach-Meyer Co., West New York, (a) $54,999. Noted June 10.

Wis., Beloit—City received bid June 28, building 249 ft. rein.-con. bridge, 66 ft. wide, on Central St., from Stein Constr. Co., 204 Grand Ave., Milwaukee $82,500. Noted June 24.

★**Ark., Mena**—Comrs. Polk Co. let contract building bridges and abutments, in Rd. Impvt. Dists. 2 and 3, to Maxwell Constr. Co., Columbus, Kan. About $122,-000. Noted May 20.

★**New Mexico** — State Highway Dept., Capitol Bldg., Santa Fe, let contract building Logan Bridge, 734 ft. long, with 420 ft. steel arch span, over Canadian River, New Mexico, Federal Aid Project 39, Quay Co., to Midland Bridge Co., 504 Ry. Exch., Kansas City, Mo. Noted May 13.

★**Arizona**—State Highway Dept., Phoenix, let contract building bridges and culverts on 18.047 mi. Sects. A and B, Globe-Geronimo Highway, between Globe and Rice, Gila Co., to A. W. Daniels, Box 996, Globe, $19,177, involving 3,360 cu.yd. unclassified excav. for structures at $1 per cu.yd., 60 cu.yd. backfill for culvert and pipe, $.70, 130 cu.yd. ditching and channel change, $1, 636 cu.yd. selected gravel for type B fords, $3.50, 435 cu.yd. Class "A" concrete $16, 273 cu.yd. Class "C" concrete $9, 45 lin.ft. double pipe railing, $1.

Streets and Roads

PROPOSED WORK

Mass., Boston—Pub. Wks. Dept. soon lets contract building 30,000 lin.ft. straight granite edgestone curb. Private plans.

N. J., Flemington—Bd. Freeholders Hunterdon Co. plans to pave 3 mi. road from Stockton to Sergeantville. G. Davis, White House Station, engr.

N. J., Hoboken—Blvd. Comn. Hudson Co. (Jersey City) soon receives bids improving portion Park Ave., here. About $50,000. Noted April 15.

N. J., Jersey City—City having plans prepared for widening Bergen Ave. from Sip Ave. to Bergen Sq. Cost to exceed $116,500. F. A. Dolan, clk.

N. J., Jersey City—City having plans prepared for repaving West Side Ave. from Montgomery St. to Communipaw Ave.; granite block. About $100,000. C. Van Keuren, city engr.

N. J., Secaucus (Weehawken P. O.)—Town having plans prepared and soon receives bids improving Front St. Cost to exceed $50,000.

Pa., Clearfield—Clearfield Co. voted $1,-000,000 bonds to build roads. L. C. Norris, clk.

Pa., Clearfield—Comrs. Clearfield Co. (Clearfield) and Blair Co. (Hollidaysburg) soon receive bids building 5 mi. Janesville Pike, 18 ft. wide, 4 mi. in Clearfield Co. and 1 mi. in Blair Co., stone and concrete. About $50,000. D. A. McCloskey, Court House, Hollidaysburg, and E. W. Hess, Kratzer Bldg., Clearfield, engrs.

Pa., Ebensburg—H. T. Jones, controller Cambria Co., soon receives bids building Menoher Highway from Roxbury Ave. to Southmont, Johnstown, involving 7,043 ft. concrete or brick. Cost between $160,000 and $175,000.

Va., Danville—City plans to expend $150,-000 to pave roads. C. L. Scott, Jr., engr. for Chamber Commerce.

W. Va., Charleston—City plans to pave, repave or resurface Jackson St. from Thompson St. to end of present paving; East Ave. from Washington to Kanawha Sts.; Oney St. from Kanawha to Quarrier Sts.; Quarrier St. from California to Michigan Aves.; Virginia St. from Reynolds St. to Elk River Bridge; Alderson St. from Kanawha to Virginia Sts.; Monongalia St. from Pennsylvania to Tennessee Aves., Birch St. from Bigley to Indiana Aves.; Beuhring Ave. from Wyoming to Virginia Sts.; Darst St. from McClung St. to end of street; Duffy St. from McClung to Darst Sts.; alley west of Ruffner Ave. from Quarrier St. south to an alley; Reynolds St. from Lovell St. to end of curb; North Rand St. from Court to Summers Sts.; 6th St. from Hunt to Florida Sts.; California Ave. from Quarrier to Kanawha Sts.; alley west from Ruffner Ave. from Quarrier St. north to an alley. F. A. McGrew, clk.

W. Va., Madison—Boone Co. soon receives bids grading 3.08 mi. Kancoline-Racine Rd. About $65,000. J. P. Blundon, co. engr.

W. Va., Ripley — Jackson Co. election July 17, to vote on $90,000 bonds to surface roads in Union Dist.

S. C., St. George—Dorchester Co. having surveys made for building roads. Bonds for $320,000 sold for project. I. S. Hulto, chn.

O., Boonville—Comrs. Warrick Co. received no bids June 8, building 2½ mi. Lincoln Ave. Rd., broken rock, Ohio Twp. Noted June 3.

Mich., Allegan—Bd. Comrs. Allegan Co. soon receives bids building 4 mi. Covert Act. Rd., west of Wayland, also 4½ mi. west of Bradley, 12 ft. gravel. L. F. Levin, co. engr.

Mich., Detroit—City having plans and specifications prepared for grading, shaping and paving with sheet asphalt on 6 or 8 in. concrete base, Berea, Medina, etc., curbstone, Burnett St. from Grand River to Plymouth Aves.; Colfax Ave. from Tireman to Dailey Aves.; Cavalry Ave. from Jefferson Ave. to Fort St.; Concord Ave. from Lambert to Harper Aves.; Collingwood Ave. from Linwood Ave. to Dexter Blvd.; Chalmers Ave. from Charlevoix to Mack Aves.; Conger Ave. from Baldwin to Maxwell Aves.; Clairmount Ave. from Wildemere Ave. to Dexter Blvd.; Dexter Blvd. from Lawrence to Collingwood Aves.; Elmhurst Ave. from Oakman Blvd. to Linwood Ave.; Gray Ave. from Kercheval to Charlevoix Aves.; Galster Ave. from Garfield to Forest Aves.; Harvey Ave. from Junction to Campbell Aves.; Heck Pl. from Garfield to Hancock Aves.; Holcomb Ave. from Harper to Peter Hunt Aves.; Hazelwood Ave. from Dexter Blvd. to Quincy Ave.; Ironwood Ave. from Begole to Tireman Aves.; Inglis Ave. from Scotten St. to point 368 ft. east; Joy Rd. from Linwood to Grand River Aves.; Kanter Ave. from Elmwood St. to East Grand Blvd.; Linwood Ave. from Lawrence to Collingwood Aves.; Lawrence Ave. from Linwood Ave. to Dexter Blvd.; Leland Ave. from Riopelle to Orleans Sts.; Lane Ave. from alley west of Central to Green Aves.; Lycaste Ave. from point 100 ft. south of Detroit Terminal R.R. to southerly termi-

Streets and Roads (Continued)

nus; Lane Ave. from Lawndale to Elsmere Aves.; Marlborough Ave. from Kercheval to Waterloo Aves., Milford Ave from Vinewood to Beechwood Aves.; Oakdale Ave. from Mandel to Woodmere Aves.; Parkhurst Ave. from Woodward Ave. to John R. St.; Pasadena Ave. from 12th St. to Livernois Ave.; Philadelphia Ave. from La Salle to Linwood Aves.; St. Thomas Ave. from Townsend to Centerline Aves.; St. John Ave. from Martin to Central Aves.; Stair Ave. from Ferndale to Dix Aves.; Townsend St. from Harper to Miller Aves.; 28th St. from Milford Ave. to Moore Pl.; Underwood St. from Grand River to Southfield Aves.; Warren Ave. from Sheridan to Iroquois Aves.; Whitewood Ave. from Begole to Tireman Aves.; Witt Ave. from Michigan Central R.R. to Springwells St. C. W. Hubbell, city engr.

Wisconsin—State Highway Dept., at div. office, Rhinelander, rejected bids building Antigo-Merrill Rd., Federal Aid Project 166, Langlade Co. Work involves 29,726 cu.yd. earth excav., 223.24 cu.yd. concrete in culverts, 46.45 acres clearing and grubbing, etc. About $76,029.

Minn., Bemidji—Beltrami Co. rejected bids June 7, grading and graveling 6 mi. Federal Aid Project 143, Job 1912, State Route 6; 6 mi. Federal Aid Project 57, Job 1901, Div. D; 12 mi. Federal Aid Project 162, Job 1910; 11 mi. County Job 1909; 10 mi. Federal Aid Project 136, Divisions A and B, all 24 ft. wide. S. D. Snyder, Bemidji, engr. Noted May 6.

Minn., Carlton—Carlton Co. rejected bids May 12, grading and graveling 4 mi. Federal Aid Project 123, State Route 3, 24 ft. wide. About $30,000. Project postponed. Noted Apr. 29.

Minn., Duluth—St. Louis Co. rejected bids May 12, grading 7.5 mi. Co. Jobs 2,002 and 2,003; 8.6 mi. Federal Aid Projects 180 and 182 and Co. Jobs 2,004 and 2,005; 6.8 mi. Federal Aid Project 83, and Co. Job 2,006, all 24 ft. wide. R. W. Acton, Duluth, engr. Noted May 6.

Minn., Hallock—Kittson Co. rejected bids May 19, building 3 mi. State Aid Job 2,006, 24 ft. wide. About $30,000. Project abandoned. Noted May 13.

Minn., Hallock—Kittson Co. rejected bids May 19, grading and graveling 13 mi. Federal Aid Project 151, 24 ft. wide. Noted May 6.

Minn., Wadena—Wadena Co. received no bids May 25, grading and graveling 5 mi. Federal Aid Project 152, 24 ft. wide. About $35,000. E. Ward, Wadena, engr. Noted May 13.

Tex., Bastrop—Bastrop Co. having plans prepared grading, surfacing and draining 9.679 mi. Highway 20, in Rd. Dist. 4, through McDade, 14 ft. wide, involving 8.52 acres clearing and grubbing, 22,512 cu.yd. embankment borrow, 17,708 cu.yd. earth excav., 13 ton c.i. pipe, 17,656 cu.yd. gravel, 17,589 lb. reinforcing steel, 179.65 cu.yd. Class "A," 196.34 cu.yd. Class "B," and 13.83 cu.yd. 1:2:3 concrete. About $70,000. A. F. Mitchell, Cameron, engr.

Tex., Cameron—Milam Co. having plans prepared surfacing and draining 8.1 mi. Highway 44 from 1½ mi. north Rockdale to Minerva, 14 ft. wide, involving 35,500 cu.yd. embankment borrow, 17,596 cu.yd. gravel, 22,393 lb. reinforcing steel, 341.04 cu.yd. Class "A" and 425.72 cu.yd. 1:2:3 concrete. About $84,346. A. F. Mitchell, Cameron, engr.

Tex., Coleman—Coleman Co. having plans prepared grading, surfacing, draining and building steel span bridges on Highway 7 from 2.2 mi. northwest of here to Brown Co., 16 ft. wide, Federal Aid Project 194, involving 10 acres clearing and grubbing, 1,300 sq.yd. rein.-con., 92,000 cu.yd. earth and 1,800 cu.yd. rock excav., etc. About $263,833. W. E. Dickerson, Coleman, engr.

Tex., Ft. Worth—Tarrant Co. rejected bids received July 1, grading, paving and draining 5.857 mi. Highway 1 from Dallas Co. line through Arlington, 16 ft. wide. Work involves 1.17 acres clearing and grubbing, 20,084 cu.yd. earth borrow, 38,448 cu.yd. earth excav., 72,132 sq.yd. concrete pavement, 69,021 lb. reinforcing steel, 502.2 cu.yd. Class "A," 20.35 cu.yd. Class "B" and 177 cu.yd. Class "C" concrete, etc. About $309,392. R. V. Glenn, co. engr. Noted June 17.

Tex., Greenville—Hunt Co. having plans prepared grading, surfacing and draining 8.69 mi. Highway 1 from east line Rd. Dist. 1 to Hopkins Co. line, 16 ft. wide, involving 4 acres clearing and grubbing, 48,760 cu.yd. earth excav., 81,573 gal. bituminous material, 23,897 cu.yd. crushed stone, 46,580 lb. structural steel, 275 cu.yd. Class "A" and 261 cu.yd. Class "B" concrete. About $205,498. A. D. Duck, Greenville, engr.

Tex., Marshall—Harrison Co. having plans prepared grading, surfacing and draining 15.9 mi. Highway 8 from Panola Co. north, 12 ft. wide, involving 5 acres clearing and grubbing, 41,600 cu.yd. borrow, 20,870 cu.yd. earth and 130 cu.yd. loose rock excav., 4.55 mi. scarifying, 51,000 lb. reinforcing and 17,000 lb. structural steel, 480 cu.yd. Class "A," 145 cu.yd. Class "B" and 30 cu.yd. Class "C" concrete. About $112,855. G. A. Duren, Marshall, engr.

Quebec—Dept. Rds., Quebec, soon receives bids building 40 mi. waterbound macadam roads, 18 ft. wide, in Matane.

Que., Quebec—Dept. Rds. soon receives bids building roads in Gaspe and Bonaventure counties, waterbound macadam. About $1,000,000.

Ont., St. Thomas—Elgin Co. plans to expend about $180,000 for improving roads, macadam and gravel. F. Pineo, Court House, road supt.

BIDS DESIRED

N. Y., Auburn—Until July 12, by J. P. Jaeckel, city mgr., improving Grover St. from South to Osborn Sts.; advertised in this issue.

N. Y., Brooklyn—Until July 14, by E. Riegelmann, boro. pres., regulating and repaving with Grade 1 granite on concrete foundation, roadway of Atlantic Ave. from Clinton St. to Flatbush Ave. with permanent asphalt and Grade 1 granite on 6 in. concrete foundation, Bergen St. from Court to Smith Sts., West 5th St. from Sea Breeze to Surf Aves., regulating and paving with permanent asphalt on 6 in. concrete foundation, East 10th St. from Ave. O to Ave. P, Junius St. from Sutter to Blake Aves., Newport St. from Van Sinderen Ave. to Hinsdale St., 81st St. from 20th to 21st Aves.

N. Y., Johnstown—Until July 12, by G. E. Yerdon, city clk., paving 882 ft. Chase St. and 520 ft. North Melcher St., bituminous macadam, also resurfacing 2,310 ft. North and South Melcher Sts.; advertised in this issue.

N. Y., New York—Until July 14, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with sheet asphalt on concrete foundation, roadway of Bway. from 14th to 17th Sts., West 36th St. from 8th to 9th Aves. 82nd St. from Ave. A to 2nd Ave. East 51st St. from 3rd to Park Aves. 12th St. from 6th to Greenwich Aves., with 3 in. asphaltic concrete on concrete foundation, West 36th St. from 8th to 9th Aves. East 51st St. from 3rd to Park Aves., East 82nd St. from Ave. A to 2nd Ave., 12th St. from 6th to Greenwich Aves., Bway. from 14th to 17th Sts., with 3 in. asphalt block on concrete foundation, East 82nd St. from Ave. A to 2nd Ave., 12th St. from 6th to Greenwich Aves., East 51st St. from 3rd to Park Aves., Bway. from 14th to 17th Sts., West 36th St. from 8th to 9th Aves., with wood block on concrete foundation, Bway. from 14th to 17th Sts.

N. Y., Yonkers—Until July 12, by Bd. Contr. & Supply, paving and improving McLean Ave. from westerly line of Tibbets Rd. to Central Park Ave., curbing on both sides of Garden St. from Nepperhan to Palisade Aves. and St. Mary's St. from Riverdale to Hawthorne Aves. L. Griffith, city engr.

N. J., Camden—Until July 14, by C. F. Wise, chn. Rd. Com., Bd. Freeholders Camden Co., improving Clements Bridge Rd., Haddon Heights and Barrington Boroughs and Centre Twp.; advertised in this issue.

N. J., Freehold—Until July 28, by Bd. Freeholders Monmouth Co., rebuilding Keyport Co. Rd. C. E. Close, clk.; advertised in this issue.

N. J., New Brunswick—Until July 22, by Bd. Freeholders Middlesex Co., improving Jamesburg-Helmetta Rd., Jamesburg Boro. and Monroe Twp. T. J. Mulvihill, clk.; advertised in this issue.

Pa., Hollidaysburg—Until July 12, by R. W. Smith, secy. Boro. Council, paving and curbing Garber St. between Pennsylvania and Union Sts., 18 ft. wide, involving 2,300 sq.yd. rein.-con. on 5 in. concrete base and 1,750 lin.ft. concrete curbing. About $30,000. J. L. Henry, Walsh Bldg., engr.

Md., Baltimore—Until July 12, by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving 0.78 mi. state highway, through town of Belair, Contr. H-18A. J. N. Mackall, chn.; advertised in this issue.

W. Va., Beckley—Until July 12, by Comrs. Raleigh Co. grading and draining 5 mi. road from mouth of Spruce Creek to Artie. About $50,000. H. R. Anderson, road engr.

W. Va., Berkeley Springs—Until July 17, by Comrs. Morgan Co. hard surfacing 3 mi. Hancock-Berkeley Springs Rd., including 3,000 ft. concrete paving, 16 ft. wide. About $20,000. F. L. Hawkins, engr.

W. Va., Berkeley Springs—Until July 20, by Comrs. Morgan Co. grading (a) 6 mi. road from Paw Paw to Enon Bridge, (b) 8 mi. road from Great Cacapon to Fishers, (c) includes (a and b) and 18 mi. road from Great Cacapon to Paw Paw. About $[illegible]000. F. L. Hawkins, Berkeley Springs, engr.

North Carolina—Until July 20, by State Highway Dept. at Div. office, Greensboro, grading and top soiling 7.2 mi. Federal Aid Project 57, Rowan Co. About $30,000. W. S. Fallis, Raleigh, state highway engr.

Ga., Cartersville—Until July 14, by H. C. Hill, Ordinary of Barrow Co., at Winder, building 11.3 mi. Federal Aid Project (a) 28 and (b) 148, State Aid System, Route 11, involving 1.18 acres clearing and grubbing, 28,189 cu.yd. common and borrow and 1,092 cu.yd. rock excav., 17,756 cu.yd. top soil, 10,338 sta.yd. overhaul, 1,782 lin.ft. 15-24 in. drain pipe, 155.6 cu.yd. concrete in headwalls, 56.01 cu.yd. Class "A" and 5.59 cu.yd. Class "B" concrete in culverts, 4,118 lb. reinforcing steel, etc.; (b) 4.01 acres clearing and grubbing, 36,073 cu.yd. earth, 562 cu.yd. rock, and 4,850 cu.yd. borrow excav., 10,996 sta.yd. overhaul, 12,152 cu.yd. top soil, 737 lin.ft. 15-24 in. drain pipe, 61.5 cu.yd. concrete in headwalls, 22.8 cu.yd. Class "A" and 8.4 cu.yd. Class "B" concrete in culverts, 101,026 lb. reinforcing steel, 642.5 lb. Class "A" and 79.2 lb. Class "B" concrete in bridges, etc. J. W. Hawkins, 703 Walton Bldg., Atlanta, div. engr.

Ga., Lawrenceville—Until July 15, by Bd. Comrs. Rds. and Revenues, Gwinnett Co., building 14.22 mi. Federal Aid Projects (a) 117 and (b) 162, on State Aid System Route 8. Work involves (a) 2.91 acres clearing and grubbing, 31,258 cu.yd. common and 1,406 cu.yd. rock excav., 13,400 sta.yd. overhaul, 19,936 cu.yd. top soil surfacing, 194 lin.ft. 15-30 in. pipe relay, 945 lin.ft. 4-30 in. D. S. V. pipe, 84.12 cu.yd. concrete in headwalls, 276.72 cu.yd. Class "A," 16.02 cu.yd. Class "B" and 8.25 cu.yd. Class "C" concrete in culverts, 270 cu.yd. Class "A" and 192.2 cu.yd. Class "B" concrete in bridge, 64,964 lb. reinforcing steel, 1,100 lin.ft. concrete piles, etc., (b) 4.91 acres clearing and grubbing, 29,908 cu.yd. common and 1,890 cu.yd. rock excav., 11,755 sta.yd. overhaul, 1,052 lin.ft. 15-30 in. drain pipe, 64.32 cu.yd. Class "B" concrete in headwalls, 252.36 cu.yd. Class "B" and 72.5 cu.yd. Class "A" concrete in culverts, 7,184 lb. reinforcing steel, etc., also removing old bridge, involving 112.9 cu.yd. Class "A" concrete, 21,012 lb. reinforcing steel, 630 lin.ft. concrete piles, etc.. J. W. Hawkins, 703 Walton Bldg., Atlanta, div. engr.

Fla., Cocoa—Until July 19, by City Council, improving various streets, involving 2,500 cu.yd. grading and 15,000 sq.yd. paving. A. L. Bruner, clk. C. M. Rogers, Daytona, engr.

Fla., Ft. Myers—Until Aug. 5, by J. W. Owens, city clk., grading and paving sections of Oak, Hendry, Monroe, and 1st Sts., cement concrete, asphaltic concrete, sheet asphalt, asphaltic block and vitr. brick. J. A. Davidson & Son, city engrs.; advertised in this issue.

O., Clairsville—Until July 19, by Comrs. Belmont Co., paving 2 mi. Flushing-Uniontown Pike, concrete, also 2 mi. Martins Ferry, vitr. brick, both 16 ft. wide. L. A. Darrah, Martins Ferry, engr.

O., Maple Heights (Bedford P. O.)—See "Sewers."

O., Toronto—Until July 19, by J. N. Shaw, clk., furnishing labor and materials for grading, curbing and paving Vollmer St. and River Ave. westwardly to 4th St., Freeman Ave. from 3rd to 4th Sts. and Cleveland St. from River Ave. to 4th St.

Illinois—Until July 21, by Dept. Pub. Wks. & Bldgs., Springfield, paving 0.81 mi. Sect. 23, Lincoln Highway, Project 1, Lee Co., 0.7 mi. Sect. M. and 1 mi. Sect. L. Dixie Highway, Project 2, Iroquois Co. Bids will also be received by cities of Ashton and Watseka, widening portion of pavement within corporate limits. F. L. Bennett, dir.; advertised in this issue.

Wisconsin—Until July 13, by State Highway Dept., Madison, paving 3.63 mi. Portage-Baraboo Rd., Federal Aid Project 177, Sauk Co., involving 12,943 cu.yd. earth, 30

Streets and Roads (Continued)

cu.yd. rock and 441 cu.yd. borrow excav., 103 cu.yd. Class "A" concrete, 1,200 sq.yd. concrete surfacing, 18 ft. wide, 35,400 sq.yd. feather edge gravel, 26 ft. wide, etc.

Wis., Shorewood (Milwaukee P. O.)—Until July 12, by village, paving Oakland and Maryland Aves. and 2 alleys, involving 2,002 sq.yd. concrete paving and 10,700 cu.yd. grading. About $60,000. F. Ullius, Jr., 1288 Murray Ave., engr.

Minn., Alexandria—Until July 12, by Douglas Co., grading and graveling 7 mi. Federal Aid Project 131, State Rd. 1, 24 ft. wide, involving 29,423 cu.yd. excav. and overhaul, 2,500 lin.ft. guard rail, 1,196 lin.ft. 12-24 in. sectional concrete culvert, 110 ton mi. haul of culverts, and 8,234 cu.yd. load and haul. About $50,000. A. Webster, Alexandria, engr. Noted June 24.

Minn., Fairmont—Until July 12, by Martin Co., building 4 mi. Federal Aid Project 72, State Rd. 3, involving 44,303 cu.yd. excav., 3,080 lin.ft. guard rail, 364 lin.ft. 12-30 in. port culvert; 5 mi. Federal Aid Project 71, State Rd. 1, 46,720 cu.yd. excav., 887 lin.ft. 12-24 in. port culvert; 6 mi. State Aid Job 1906, State Rd. 3, 53,257 cu.yd. excav., 2,580. lin.ft. guard rail, 73 lin.ft. 12-18 in. port culvert 8,380 cu.yd. load and haul, gravel surface material, 13.7 cu.yd. concrete in culvert. About $96,000. J. W. Mills, Fairmont, engr. Noted Mar. 11.

Minn., Long Prairie—Until July 13, by L. J. Ramstad, aud. Todd Co., building 17 mi. Federal Aid Project 99, State Rd. 1, 24 ft. wide, involving 0.7 acres clearing and grubbing, 78,990 cu.yd. excav., 75,325 cu.yd. overhaul, 1,685 lin.ft. 12-30 in. port culverts, etc. About $85,000. Noted April 29.

Kan., Washington—Until July 15, by City Council, improving 2nd, 3rd and 4th Sts., involving 7,438 cu.yd. earth excav., 12,507 lin.ft. 8 in. combined curb and gutter, 18,141 sq.yd. vitr. brick, sheet asphalt or asphaltic concrete, etc. Black & Veatch, Interstate Bldg., Kansas City, Mo., engrs.

N. D., Grand Forks—Until July 13, by Grand Forks Co., grading and draining 14 mi. road from Thompson west towards Northwood, Sect. A, Federal Aid Project 41. Work involves 43,973 cu.yd. Class A and 51,760 cu.yd. Class B excav., 20,853 cu.yd. overhaul, 1,752 lin.ft. 18 and 24 in. pipe culverts, 102.78 cu.yd. 1:2:4 and 80 cu.yd. 1:2½:5 concrete, 7,950 lb. reinforcing steel. H. Anderson, aud.

N. D., Hillsboro—Until July 14, by Traill Co., grading and draining 7.04 mi. road from Burton to north county line, Federal Aid Project 67. Work involves 2.5 acres clearing and grubbing, 2.5 acres plow and harrow sod, 38,702 Class B excav., furnishing and hauling 1,446 lin.ft. 18 and 24 in. corrugated metal pipe culverts, 62.64 cu.yd. 1:2½:5 concrete in headwalls, 53.7 cu.yd. 1:2 and 4 concrete in box culverts, 4,494 lb. reinforcing steel, etc. G. D. Olson, aud.

Missouri—Until July 16, by State Highway Dept., Jefferson City, building 8.62 mi. Dexter-Malden-Kennett Rd., 24 ft. wide, Federal Aid Project 26, Dunklin Co., involving 470 cu.yd. earth excav., 1,970 cu.yd. borrow, 44,426 lin.ft. grading, 80,972 sq.yd. Stec. "A" gravel pavement, 7.4 cu.yd. Class "B" concrete masonry, 650 lb. reinforcement for concrete masonry and 30 drainage wells complete, etc. About $118,016.

Missouri—Until July 23, by State Highway Dept., Albany, building 8.86 mi. Sect. A, Jefferson Highway, 24 ft. wide, Federal Aid Project 54, Gentry Co., involving 45,595 cu.yd. earth excav., 11,968 cu.yd. per 100 ft. overhaul, 152.14 cu.yd. Class "B" and 71.9 cu.yd. Class "C" concrete masonry, 10,589 lb. reinforcement for concrete masonry, 982 lin.ft. 12-36 in. rein.con. pipe culverts and 40 lin.ft. relaid pipe culvert, cost $49,310; 4.93 mi. Sect. B, Jefferson Highway, 16 ft. surfaced, Federal Aid Project 54, Gentry Co., 26,025 lin.ft. grading, 46,266 sq.yd. broken stone for bituminous surface on broken stone base course, 104,099 gal. bitumen for bituminous surface course, $115,723.

Tex., Greenville—Until July 14, by Permanent Rd. Bd., Hunt Co., improving 16.5 mi. Greenville-Terrell Rd. from Harlow Switch to Kaufman Co. line, involving 25 acres clearing and grubbing, 90,000 cu.yd. unclassified earth excav., 30 cu.yd. Class "A" concrete, 30,000 lb. reinforcing steel, 45,000 ton crushed stone, 18,750 sq.yd. concrete pavement, furnishing and applying 75,000 gal. bituminous material, etc.; 5.3 mi. Greenville-McKinney Rd. from point 6 mi. west of here to Collin Co. line, 5 acres clearing and grubbing, 30,000 cu.yd. unclassified earth excav., 90 cu.yd. Class "A" concrete, 9,000 lb. reinforcing steel, 5,000 sq.yd. concrete pavement, furnishing and applying 27,000 gal. bituminous material, etc. A. D. Duck, Levy Bldg., engr.

Tex., Richmond—Until July 12, by C. H. Chernoskey, judge Ft. Bend Co., grading, surfacing and draining 13 mi. Highway 35 from Rosenberg to Austin Co. line, 14 ft. wide, involving 14,975 cu.yd. earth borrow, 105,894 cu.yd. unclassified earth excav., 71,000 gal. asphalt, 3,000 cu.yd. cover material, 29,535 lb. reinforcing steel, 29,758 cu.yd. gravel, 350.5 cu.yd. Class "A" and 323.68 cu.yd. Class "B" concrete. About $250,126. Gurley & Gurley, Union Natl. Bank Bldg., Houston, engrs. Noted June 24.

Okla., Marietta—Until July 15, by T. M. Randolph, city clk., improving West 2nd, 3rd and 4th Aves., involving 22,360 sq.yd. paving, 16,400 lin.ft. gutter, 16,210 lin.ft. curb, etc. H. E. Elrod Co., 220 Interurban Bldg., Dallas, engrs.

Sask., Davidson—Until July 30, by city, building 40,000 sq.ft. concrete walks on various streets. About $25,000. A. J. Robertson, clk.

Que., Montreal—Until July 15, by city, building 2½ mi. sidewalks on St. Catherine St. from St. Lawrence to Atwater Sts. About $145,965. A. E. Doncet, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract).

★**Mass., Chicopee**—City let contract building new road on Front St. from Wheatland Ave. to new high school, to Adams & Ruxton Constr. Co., 33 Lyman St., Springfield. About $62,000.

★**Mass., West Roxbury** (Boston P. O.)—City let contract paving track area and space between tracks on Washington St. between Archdale Rd. and south side Corinth St., to Boston Elevated Ry Co., 101 Milk St., Boston. About $26,000.

★**Connecticut**—State Highway Comn., Hartford, let contract paving 1 mi. 3 in. bituminous macadam highway, Wethersfield and Rocky Hill Twps., to Lane Constr. Co., 37 Colony St., Meriden. About $28,000.

New York—F. S. Greene, state highway comr., Capitol, Albany, received bids July 2, improving Rd. 5103, Columbia Co., from Belmar Contg. Co., Inc., Troy, $63,912; Rosoff Eng. Co., 15 Park Row, New York City, $63,965; Kennedy Contg. Co., Albany, $64,554; Rd. 5198, Greene Co., from D. Schoentag, Saugerties, $103,374; Rd. 16, Ulster Co., from Armstrong & Trowbridge, Napanoch, $95,226; T. J. Martin, Beacon, $98,921; Rds. 691, 692 and 5055, Warren Co., from W. L. Lawton, Glens Falls, $70,598; Rds. 937 and 1020, Lewis Co., from W. J. Semper, Watertown, $79,099; I. L. Smith & Son, Lyons Falls, $79,959. Dale Eng. Co. Inc., Mann Bldg., Utica, $80,499; completing Rds. 110 and 247, Fulton Co., from M. Vroman, Gloversville, $13,680; R. Wemple, Fultonville, $14,007. Noted June 24.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract repaving Neptune Ave., Ash and Coffey Sts., to C. Gallagher, $30,818, $12,722 and $9,446 respectively; fencing lots southwest side Visitation Pl., etc., to O. Metz, 119 Palmetto St., $1,013; regulating and repaving Bedford Ave., to Consolidated Asphalt Paving Co., 52 9th St., $97,895. Noted June 17.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received bids June 30, regulating, recurbing and paving (a) Benson Ave., (b) regulating and paving East 15th St., (c) 49th St., (d) 12th Ave., (e) 65th St., (f) Maspeth Ave., (g) regulating, grading and curbing Carrol St., from Uvalde Asphalt Paving Co. 1 Bway., New York City. (a) $18,354, (c) $14,372, (d) $16,543, (e) $10,152; Consolidated Asphalt Paving Co., 52 9th St., (a) $18,816, (c) $14,724, (d) $17,005, (e) $10,428; Brooklyn Alcatraz Asphalt Co., 407 Hamburg Ave., (a) $19,109, (c) $15,005, (d) $17,227, (e) $10,553; C. A. Myers, Stagg St., (b) $11,408, (f) $27,808; Grieco Bros., 172 Russell St., (f) $26,235, Scanlon Bros., (f) $26,903; Rosenthal Eng. Constr. Co., Inc., Rutland Rd., (f) $27,462; Castle Bros., Johnson Pl., (g) $15,740; Connors Bros., Albany Ave., (g) $18,743; P. T. McDermott, 1805 Carroll St., (g) $21,069. Noted June 24.

★**N. Y., College Point** (Flushing P. O.)—M. E. Connolly, pres. Queens Boro., Long Island City, let contract to H. J. Mullen Co., Fulton St., Jamaica, repaving 3rd Ave., cost $86,150, 5th Ave., $31,330, 7th Ave. from 18th St. to Flushing Line $49,965; to Uvalde Asphalt Paving Co. 1 Bway., New York City, 7th Ave. from 13th to 16th Sts., $22,525, Grandview Ave., $43,050; to Cleveland Trinidad Paving Co., Flushing, Grand Ave., $23,198; to Kennedy & Smith, Steinway Ave., $249,888; to A. Hess, Boulevard, $236; to C. Kurth, 917 Forest Ave., Ridgewood, 223rd St., $1,678. Noted June 24.

★**N. Y., Olean**—S. M. Gaylor, comr. Bd. Pub. Wks., let contract paving Front, School and 5th Aves., to Forness & Foot, $106,776. Noted June 3.

N. Y., St. L., St. George—C. D. Van Name, pres. Richmond Boro., received bids repaving Rockland Ave. from point 1,100 ft. west to Manor Rd., and Richmond Rd. from Rockland Ave. to Amboy Rd., from C. Vanderbilt, 24 Elizabeth St., West New Brighton, $32,732 and $17,790 respectively; J. Johnson Sons, West New Brighton, $33,078 and $17,724 respectively; J. E. Donovan, Richmond Terrace, Port Richmond, $33,255 and $17,870 respectively. Noted June 24.

★**N. Y., S. I., St. George**—C. D. Van Name, pres. Richmond Boro., let contract repaving Rockland Ave., to J. Johnson Sons, West New Brighton, $40,334. Noted July 1.

New Jersey—State Highway Comn., Trenton, received bids June 28, grading and paving State Highway Route 3, Ancora-Atco Sect., Camden Co., involving 52,196 sq.yd. concrete, 15,349 cu.yd. earth excav., etc., from E. R. Mixner, Goshen, $405,719; J. M. Kelly Constr. Co., 506 Federal St., Camden, $482,546.

★**N. J., Belvidere**—Bd. Freeholders Warren Co. let contract building Sect. 2, Washington-Buttzville Rd., to Salmon Bros., Netcong, $135,294. Noted June 10.

N. J., Secaucus (Weehawken P. O.)—Town received bid improving Center St. from Hudson Contg. Co., 101 South St. About $185,000; cost plus percentage basis.

Pa., Pittsburgh—City received bids June 21, improving (a) Ferry St., involving (1) 9,269 cu.yd. grading, (2) 5,670 sq.yd. sheet asphalt on 8 in. concrete foundation, (3) 636 sq.yd. vitr. brick pavement, Type 2, on 8 in. concrete foundation, (4) 612 lin.ft. Type 1 protected concrete curbing, (5) 10,400 sq.ft. Type 1 concrete sidewalks, (6) 375 lin.ft. 9 in. terra cotta pipe house lateral connections, (7) 305 lin.ft. 18 in. terra cotta pipe sewer, etc., (8) 5M ft. hemlock lumber in place; (b) Diamond St., (1) 1,422 cu.yd. grading, (2) 925 sq.yd. sheet asphalt on 8 in. concrete foundation, (3) 215 sq.yd. vitr. brick pavement, Type 2, on 8 in. concrete foundation, (4) 535 lin.ft. Type 1 protected concrete curbing, (5) 6,800 sq.ft. Type 1 concrete sidewalks, (6) 5M ft. hemlock lumber in place, etc., from J. H. McQuade & Sons Co., Bakewell Bldg., (a1) $1.25 per cu.yd., (a2) $5.16, (a3) $4.90, (a4) $1.50, (a5) $0.50, (a6) $3.50, (a7) $4.50, (a8) $100, total, $59,061; Booth & Flinn, Ltd., 1942 Forbes St., (a1) $2, (a2) $5, (a3) $5, (a4) $1.30, (a5) $0.30, (a6) $2, (a7) $5, (a8) $125, $62,495, (b1) $2.50, (b2) $5.75, (b3) $5.75, (b4) $1.30, (b5) $0.30, (b6) $125, $16,002; M. O'Herron Co., South 1st St., (a1) $2, (a2) $4.75, (a3) $4.50, (a4) $1.15, (a5) $0.40, (a6) $4, (a7) $5, (a8) $75, $62,790, (b1) $2, (b2) $5.15, (b3) $5.50, (b4) $1.50, (b5) $0.50, (b6) $75, $16,752; T. Cronin Co., South 15th St., (b1) $3, (b2) $4.70, (b3) $5, (b4) $1.50, (b5) $0.30, (b6) $150, $16,753.

★**Pa., Pittsburgh**—City let contract improving 2nd Ave., to Booth & Flinn, Ltd., 1942 Forbes St., $148,226; Whipple St., to M. O'Herron Co., South 1st and McKean Sts., $44,383. Noted July 1.

★**Md. Baltimore**—Bd. Awards let contract oiling and resurfacing old roads in city's new annex, to Pennsylvania Eng. Co., 1119-21 North Howard St., Phila., $90,400.

★**W. Va., Wheeling**—Ohio Co. let contract paving 2,000 ft. National Rd. from Fulton to Glenwood, to Rosser & Maloney, Bellaire, O., $50,886. Noted Feb. 19.

North Carolina—State Highway Comn., at Div. office, Greensboro, received bids top soiling 16.6 mi. Federal Aid Project 80 A, Montgomery Co., from J. T. Plott, Greensboro, $148,384; J. A. Kries & Co., Knoxville, Tenn., $189,556; C. E. Teague, Columbus, Ga., $211,485; 12 mi. Federal Aid Project 111, from C. B. Hester, Greensboro, $61,896; Jamison Bros., Rocky Mt., $74,505. Noted June 17.

★**Kentucky** — State Highway Comn., Frankfort let contract grading and paving 19 mi. 18th St. Rd., Montgomery Co., Ken-

Streets and Roads (Continued)

tucky rock asphalt, to J. H. Cahill, 1540 South 9th St., Louisville, $530,029; 6 mi. macadam road, Jessamine Co., to Higgins Constr. Co., Richmond, $112,858.

★**O., Cleveland**—City let contract grading, curbing, draining and paving East 21st St. from St. Clair to Payne Aves., to Burnett & Hathaway, c/o Paver's Exch., $44,997. Noted July 1.

O., Cleveland—City received bids June 24, paving West 85th, West 74th, West 65th, West 61st, West 41st Sts. and intersecting streets at New York, Chicago & St. Louis R.R. grade elimination, from Roehl Bros., West 25th St. and Clark Ave., $166,887; Rieley Bros., The Arcade, $167,262; Burnett & Hathaway, Society for Savings Bldg., $170,985. Noted June 17.

★**Michigan**—State Highway Comn., Lansing, let contracts to A. J. Smith Constr. Co., 110 West Fort St., Detroit, grading, draining and surfacing 1.7 mi. State Trunk Line Rd. 27-11, 1.527 mi. State Trunk Line Rd. 27-1 and 2.775 mi. State Trunk Line Rd. 27-3, $77,254, $69,969 and $104,332 respectively. Noted May 27.

★**Mich., Detroit** — City let contracts to Detroit Asphalt Paving Co., 20 McGraw Bldg., grading, shaping and paving with sheet asphalt on 8 in. concrete foundation, Linden St. from Harrison St. to 1st alley west, $2,264, McArthur Pl. from McKinley to Vinewood Sts., $8,038, Mackie St. from Green to Solvay Sts., $10,715, Rowan Ave. from Beard to Green Sts., $12,700, St. Thomas Ave. from Centerline to Townsend Aves., $9,870, Townsend Ave. from Harper St. to Miller Rd., $24,231; W. B. Brady Constr. Co., 2940 Woodward Ave., Carter Ave. from Linwood Ave. to Dexter Blvd., $49,502, Radford Ave. from Grand River Ave. to Quincy St., $38,996; Cleveland Trinidad Paving Co., 1972 Grand River Ave., Burlingame Ave. from 12th St. to City Park, $25,130, Parkhurst Ave. from Woodward Ave. to John R. St., $16,278; R. J. Powelson & Co., 1577 Iroquois Ave., Alley 1,162 between 12th, Wilson, Longfellow Aves. and Chicago Blvd., $7,446, 1,167 between 12th, Wilson, Edison and Longfellow Aves., $7,301; T. E. Currie, 20 McGraw Bldg., 1,163 between Seminole, Iroquois, Warren and Moffat Aves., $7,850, 1,165 between Holcomb, Belvidere, Charlevoix and Goethe Aves., $6,949, 1,168 between Pennsylvania, Cadillac, Waterloo and Charlevoix Sts., $6,162; Lester & Shepard, 400 Penobscot Bldg., 1,164 between Townsend, Baldwin, Canfield and Forest Aves., $6,525, 1,166 between Fisher, Crane, Canfield and Forest Aves., $6,337, 1,171 between Concord, Canton, Waterloo and Charlevoix Aves., $7,224; Otis Cement Constr. Co., 806 Hammond Bldg., 1,169 between 12th, 14th and Euclid Aves. and Virginia Park, $8,524, 1,172 between Gratiot, Elmwood, Ludden and Mack Aves., $1,723; R. A. Mercier, 746 Hudson Ave., 1,170 between John R. and Brush Sts., Englewood and Woodland Aves., $7,708, 1,173 between Grand River, Avery and Alexanderine Aves., $1,636. Noted June 24.

★**Ill., Centralia**—See "Buildings."

★**Wisconsin**—State Highway Dept., Madison, let contract building Arcadian Ave., Federal Aid Project 179, Waukesha Co., to Milwaukee Genl. Constr. Co., 857-8th Ave., Milwaukee, $268,864. Work involves 41,459 cu.yd. grading, 45,473 sq.yd. concrete (some rein.-con.) surfacing, 26,000 lb. structural steel and 23,000 bbl. cement.

★**Wis., Fond du Lac**—Fond du Lac Co. State Rd. and Bridge Com. will build 3.57 mi. Fond du Lac-Dottyville Rd., 16 ft. wide. Work involves 33,450 sq.yd. gravel surfacing, 15,131 cu.yd. earth excav., 111.4 cu.yd. concrete in culverts, etc. About $42,782. Work will be done by day labor.

★**Minn., Crookston**—Polk Co. let contract grading and graveling 13 mi. Maple Lake Rd., State Rd. 3, 24 ft. wide, to S. G. Enebek, Warren, $53,471.

★**Minn., Hastings**—Dakota Co. let contract grading and graveling 16 mi. Federal Aid Project 22, 24 ft. wide, to S. J. Groves & Son, Kasota Bldg., Minneapolis. About $196,000. Noted May 6.

★**Minn., Mankato**—Blue Earth Co. let contract grading and graveling 7 mi. Job 2,002, State Rd. 14, to Brown Bros., Kankato. About $52,000.

★**Minn., Minneapolis**—Hennepin Co. let contract grading 3.8 mi. Superior Blvd., Co. Rd. 41, State Rd. 9, involving widening roadway from 24 to 40 ft., to Hanlon & Okes, 338 Lumber Exch. About $46,000.

Minn., Moorhead—Clay Co. rejected bids May 18 and will grade 15 mi. Federal Aid Project 129, 24 ft. wide. About $75,000. Work will be done by day labor. E. Martinson, Moorhead, engr. Noted May 6.

★**Minn., St. Paul**—Ramsey Co. let contract paving 1¼ mi. Snelling Ave. and 1 mi. Stillwater cutoff, 24 ft. wide, concrete, to E. M. Ganley, Plymouth Bldg., Minneapolis, $40,993 and $41,000 respectively; 1¼ mi. Long Lake Rd., 24 ft. wide, concrete, to W. Devine, New Brighton, $40,255.

★**Minn., Walker**—Cass Co. let contract building State Route Job 2,002, 24 ft. wide, involving 80 acres clearing and grubbing, 145,000 cu.yd. excav., 11,000 cu.yd. surfacing, 8,000 yd. overhaul, and 195 cu.yd. concrete in culverts, etc., to M. W. Barnard, 1817 Irving Ave., Minneapolis, $74,800. Noted Apr. 22.

★**Minn., Walker**—Cass Co. rejected bids May 4, and will grade and gravel 8 mi. State Aid Job 2,005, 24 ft. wide. About $60,000. Work will be done by day labor. Noted Apr. 22.

★**Minn., Windon**—Cottonwood Co. let contract graveling 12 mi. Federal Aid Projects 85 and 101, 24 ft. wide, to Camer & Joyce Co., Keokuk, Ia. About $30,000.

★**Wyoming**—State Highway Dept., Cheyenne, let contracts grading and building culverts on 15 mi. section of Yellowstone Highway between Uva and Glendo, Platte Co., to Bagley Bros.; building 3 concrete bridges and one 180 ft. concrete ford, on above project, to J. F. Turpin, Wheatland, $21,500; grading, building culverts and bridges on 3 mi. section Yellowstone Highway, south of Thermopolis, Hot Springs Co., to Taggert Bros., Cowley, $180,200; building 2 sections of Sheridan-Buffalo-Casper Rd., Sheridan and Johnson Counties, to J. E. Hilton, $86,900, bridges on same, to J. F. Turpin, $62,400. Noted June 10.

★**Montana**—State Highway Comn. Helena, let contract gravel surfacing 21.72 mi. Choteau-Sun River Rd., Teton and Cascade Counties, to White, Brown and Leahy, Great Falls, $104,175; constructing road from Havre east to Hill Co. line (1st part of Roosevelt Trail to be built by state), to J. O'Conner, Chinook, $74,877. Noted May 20.

★**Mo., Clayton**—St. Louis Co. let contract paving with Telford macadam, 1.47 mi. Reaves-Barracks Rd., 14 ft. wide, to J. Steffens, Clayton, $26,518.

★**Ark., Mena**—Comrs. Polk Co. let contract building 35 mi. gravel and macadam roads, Impvt. Dists. 2 and 3, to Early & Jones, Sheridan. About $276,000. Noted May 20.

★**Col., Ft. Morgan**—City let contract constructing 59,565 sq.yd. of pavement, to Strange-Maguire Co., Utah Savings & Trust Bldg., Salt Lake City, Utah, $245,658. Noted May 20.

★**Wash., Seattle**—Bd. Pub. Wks. let contract clearing, grading, paving and building sewers, et al., in 40th Ave., N., et al., involving 2,620 sq.yd. subgrading, 1,275 lin.ft. concrete curbing, 3,500 cu.yd. clearing and grubbing, 1,275 lin.ft. 6 in. concrete paving, 1,268 lin.ft. 10 in. and 3,390 lin.ft. 12 in. sewers, to V. Ramaglia & Co., 4823 38th St., N.E., 55,247.

★**Wash., Seattle** — Comrs. King Co. let contract grading and paving 1 mi. Richmond Highlands-Richmond Beach Highway, involving 3,000 cu.yd. earth excav. and 11,000 sq.yd. concrete, to Fiorito Bros., 6022 2nd Ave., N.W., $33,250.

★**Wash., Yakima** — Comrs. Yakima Co. let contract grading and paving 1½ mi. Inland Empire Highway, to Yakima Paving Co., Yakima, $55,750.

Cal., San Diego — Common Council received bids June 28, improving Pine, Witherby and Hortensia Sts., involving (a) paving with asphaltic wearing surface on 4 in. 1 course portland cement, concrete base, (b) cement concrete curbing, (c) additions to 3 catch basins, (d) two 6 in. 2-way fire hydrants, (e) 4 in. watermain, (f) 2 in. watermain, (g) 4 in. sewer laterals, from T. C. Breitenstein, Box 165, (a) $0.265 per sq.ft., (b) $0.70 per lin.ft., (c) $45, (d) $175, (e) $2.30 per lin.ft. (f) $0.90 per lin. ft., (g) $20; Fairchild-Gilmore-Wilton Co., 396 Pacific Electric Bldg., Los Angeles, (a) $0.27, (b) $0.70, (c) $75, (d) $220, (e) $3.30, (f) $1, (g) $30. Noted April 15.

★**Que., St. Marguerite**—City Council let contract building 3½ mi. Chemin-St. Marguerite Rd., 14 ft. wide, 7 in. concrete, to Phoenix Constr. Co., St. Nicholas Bldg., Montreal. About $100,000.

★**Ont., Toronto**—City let contract paving (a) Normandy Blvd. and Dawes Rd., (b) Keele and Linder Sts., (c) Cunningham, (d) Rhodes Ave., (e) York St. from Front to King Sts., (f) Davenport Rd., (g) York St. from King to Queen Sts., asphalt; (h) Neville Pk. Blvd., Keele St., Jones, Hatfield and Glebeholme Aves., (i) Clendenan Rd., (j) Colbeck Ave., (k) Western Ave., (l) Woodbine Ave., bitulithic; 5 ft. concrete sidewalks on (m) Adams and Bartlett Aves., (n) Beresford Ave., (o) Dovercourt, Kingswood and Western Aves., (p) Sanders Ave. and Weston Rd.; 7 ft. walks on (q) Bingham St., (r) McMillian and Pine Sts.; 8 ft. walks on (s) Alton and Eastern Aves., 5 ft. walks on (t) Danforth Ave. and 8 ft. walks on Oakdale Ave.; paving (u) Oakdale and Logan Aves. and Crown Pk. Rd., asphalt and McLean St. wood block; (v) Rhodes Ave. brick block; (w) concrete curbing on 5 streets; to Kilmer & Barber, 10 Adelaide St., E., (a) $20,624; Constr. and Paving Co., Confederation Life Bldg., (b) $41,207; R. C. Harris Wks. Dept., Toronto (c) $5,000, (d) $20,390, (e) $16,500, (i) $39,600, (j) $32,000, (k) $10,500, (l) $27,000, (o) $2 per lin.ft., (v) $13,300, (w) $0.90 to $1 per lin.ft.; Contg. and Paving Co., Continental Life Bldg., (f) $60,400; Godson Contg. Co., Manning Chambers, (g) $22,000, (u) $40,309; Warren Bituminous Paving Co., McKinnon Bldg., (h) $96,435; Ramsay Constr. Co., 39 Indian Rd. Cres., (m) $1.75 per lin.ft., (p) $2; Angotti & Smythe, 819 St. Clarens Ave., (n) $2; W. B. Hughes, 53 Victoria Pk. Ave., (q) $2.55; A. Johnson, 35 Burgess Ave., (r) $2.65 and $2.55 respectively; Grant Contg. Co., 50 Front St., E., (s) $2.80; A. E. Jupp Constr. Co., 47 Sparkhall Ave., (t) 5 ft. $.80, 8 ft., $2.70.

Railways

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Texas**—Cotton Belt Ry., 702 Houston St., Ft. Worth, will lay 85 lb. steel tracks between Texarkana and Mt. Pleasant. About $765,000. Work will be done by day labor.

Excavation and Dredging

BIDS DESIRED

N. Y., Marcy—Drainage—Until July 21, by State Hospital Comn., Capitol, Albany, building drainage system, at Utica State Hospital, here. L. F. Pilcher, state archt.; advertised in this issue.

Ind., Rensselaer—Ditch—Until July 20, by E. D. Nesbitt, supt. of constr., Jasper Co., building J. P. Ryan et al ditch. About $243,106.

Ia., Carroll—Drainage—Until July 15, by P. Stephany, aud. Carroll Co., improving Joint D. D. 81, Carroll Co., and Joint D. D. 72, Sac Co., involving 65,450 ft. 6-44 in. tile. I. W. Hoffman, engr.

Ia., Emmetsburg—Drain—Until July 14, by W. T. Krieger, aud. Palo Alto Co., improving D. D. No. Tri Co. Jt. 1, along Des Moines River in Palo Alto, Pocahontas and Humboldt Counties, involving 670,000 cu. yd. excav.

Ia., Le Mars—Drainage—Until July 27, by Bd. Supervs. Plymouth Co., improving Highway D. D. 1. G. S. Huxtable, co. engr.; advertised in this issue

Ia., Marengo—Ditch—Until Aug. 4, by A. H. Turner, aud. Iowa Co., building North English River. Drainage Ditch 9; advertised in this issue.

Ia., Mason City—Drainage—Until July 20, by P. Weigand, aud. Cerro Gordo Co., building Sects. 3A, 3C, 3D and Laterals 7, 8, 10, 11, 12, 15 and 16, Joint D. D. 1, Cerro Gordo, Hancock and Franklin Counties. Sect. 3A involves 71,500 ft. 6-40 in. tile, Sect. 3C, 14,850 ft. 7-22 in., and Sect. 3D, 36,250 ft. 6-34 in. etc.

Mo., Cape Girardeau—Drainage—Until July 19, by Bd. Superv. of Little River D.D., building 70,000 sq.yd. channel protection in dist. headwater diversion ch., near Nash. J. H. Himmelberger, pres. L. L. Hidinger, chief engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Clarion**—Drain—Wright Co. let contract furnishing labor and material building Drain 194, to Berkland & Littel, Vincent.

Excavation and Dredging (Continued)

and What Cheer Clay Products Co., What Cheer; Drain 193, to E. Freplies, Iowa Falls, and Natl. Sewer Pipe Co., Webster City. Noted June 10.

★**Ia., Council Bluffs**—Ditches—Pottawattamie Co. let contract building Farm Creek Ditch and laterals, Pottawattamie and Mills Counties, involving 437,500 cu.yd. excav., to E. A. Wickham, Council Bluffs. Noted June 3.

★**Ia., Logan**—Drainage—Harrison Co. let contract improving Sects. 2, 3, 11, 14, 15, 21, 22, 23, 26, 27, 28, 34, 35, Pigeon D. D., involving 172,700 cu.yd. excav., to G. W. Condon, 415 Farnam Bldg., Omaha, Neb.

★**Ia., Nevada**—Drainage — Story Co. let contract furnishing labor and material building Indian Creek Twp. D. D. 99, involving 24,651 ft. 6-28 in. tile, to Natl. Sewer Pipe Co., Webster City, and P. K. Mathison, Nevada.

★**Ia., Onawa**—Drainage—Monona Co. let contract furnishing labor and material improving Upper Soldier River D. D. 29, to S. O. Briggs Co., 925-7 City Natl. Bank Bldg., Omaha, Neb. Noted June 3.

★**Ia., Red Oak**—Ditch—Montgomery Co. let contract building 7 mi. open ditch in D. D. 3, to S. O. Briggs Co., 925-7 City Natl. Bank Bldg., Omaha, Neb. Noted May 20.

★**Ia, Waverly**—Drainage—Bremer Co. let contract furnishing labor and material building tile main and submains on D. D. 7, to N. Debel, Tripoli. Noted June 3.

Industrial Works

PROPOSED WORK

Me., Portland—A. Goodside, Fidelity Bldg., having plans prepared by Gorgins & Clarke, archts. and engrs., 46 Portland St. for 5 story, 50 x 100 ft., brick warehouse, on Congess and Gilman Sts. About $50,000.

Me., Portland—New England Cold Storage Co., 329 Commercial St., had plans prepared by Haven & Crosby, 40 Court St., Boston, and J. Gulliver Co., 120 Exchange St., consult. engrs., for 4 story, 75 x 100 ft., brick plant. About $175,000.

N. H., Nashua—Hutchins & French, archts., 6 Beacon St., Boston, soon let contract building 1 story, brick and concrete garage, rein.-con. flooring, concrete foundation, on Main St., for Mercer Bros., 280 Main St. About $50,000.

Mass., Boston—W. F. Schrafft & Sons Corp., 160 Washington St., having plans prepared by Haven & Crosby, archts. and engrs., 40 Court St., for 3 story, 80 x 240 ft. candy plant, rein.-con., on Causeway St. About $200,000.

Mass., Cambridge—Presto-Lite Co., Inc., 30 East 42nd St., New York City, receives bids about Aug. 5, building 1 story, 25 x 100 ft., brick and steel plant, rein.-con. flooring, concrete foundation, here. About $80,000. Private plans. Noted April 8.

Mass., Cambridge—Revere Sugar Refinery, 15 Broad St., Boston, soon lets contract bulding 1 story, 90 x 200 ft., cooperage shop, rein.-con. rein.-con. flooring, concrete foundation, on 9th St., here. About $80,000. H. S. Adams, 100 Ames Bldg., Boston, engr.

Mass., Holyoke — New England Tire & Rubber Co. plans to build large brick, concrete and steel plant, on Main St., South Holyoke.

N. Y., New York—Rigaud Perfume Co., 75 Barrow St., having plans prepared by Sommerfeld & Steckler, archts. and engrs., 31 Union Sq., for 7 story, 50 x 50 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation

N. J., Asbury Park—Hill Bakery Co., North Stockton St., Trenton, plans to build bakery on Main St., here. About $150,000. J. N. Barber, 395 West State St., Trenton, pres.

N. J., Jersey City—Butler Bros., foot 1st St., plan to build addition to warehouse and office, on Bay St. Cost to exceed $200,000. Architect not selected.

Pa., Phila.—Presto-Lite Co., Inc., 30 East 42nd St., New York City, receives bids about Aug. 5, building 1 story, 25 x 100 ft., brick and steel acetylene plant, rein.-con. flooring, concrete foundation. About $80,000. Private plans. Noted April 8.

Pa., Tyrone—Stevenson Laundry Co. receives bids about July 15, building 3 story, concrete, brick and stone laundry on Bald Eagle Ave. and 12th St. About $100,000. Architect not selected.

Del., Wilmington—Wilmington Provision Co., 3rd and Orange Sts., having sketches made by C. B. Comstock, archt. and engr., 110 West 40th St., New York City, for altering and building addition to packing house, on Front St. About $100,000.

Md., Baltimore—Miller Safe Co., Fremont Ave. and Briscoe St., subsidiary of York Safe & Lock Co., York, Pa., plans to construct several 1 story, concrete and steel buildings, covering total area 322 x 725 ft., on Wilkins Ave., Catherine St. and Millington Lane; first unit to contain 60,000 sq.ft. floor space, will be ¼ size of final structure, and will cost about $350,000. Ultimate cost, $1,000,000. J. A. Dempwolf, c/o York Safe & Lock Co., York, Pa., archt.

Md., Baltimore—Steinmetz Electric Motor Car Co., Inc., has acquired newly erected plant of Reus Bros. Co., Western Maryland Railroad and Kate Ave., and plans to enlarge same and construct several others, rein.-con., brick and steel.

Va., Richmond — Baughman Stationery Co., 1322 West Broad St., having plans prepared by Carneal & Johnson, archts., Chamber of Commerce Bldg., for 2 story, 173 x 227 ft., rein.-con. factory, on Marshal and Graham Sts. About $200,000.

O., Chagrin Falls—Adams Bag Co. having plans prepared by E. McGeorge, archt. and engr., 1900 Euclid Ave., Cleveland, for 3 story, rein.-con., brick and steel extension to mill, rein.-con. flooring, concrete foundation. About $100,000.

O., Cleveland—Chandler & Price Co., 6000 Carnegie Ave., having plans prepared by H. McGeorge, archt. and engr., 1731 Northfield Ave., for 4 story, 42 x 108 ft. printing machinery factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Cedar Ave. About $150,000.

O., Cleveland—D. D. Wessels, 1385 East 17th St., having plans prepared by W. G. Caldwell, archt., Park Bldg., for 2 story, 100 x 110 ft., brick, steel and concrete factory, rein.-con. flooring, brick foundation, on East 21st St. and Oregon Ave. About $100,000. Noted April 22.

O., East Cleveland (Cleveland P. O.)—East Cleveland School Bd., c/o C. Amermann, having plans prepared by W. H. Nicklas, archt., 1900 Euclid Ave., Cleveland, for 1 story, 48 x 66 ft., rein.-con., steel and brick heating plant, rein.-con. flooring, concrete foundation, at Prospect School. About $75,000.

O., Lakewood (Cleveland P. O.)—Hertner Electric Co., c/o D. C. Cookingham, 1900 West 112th St., Cleveland, purchased site and plans to build 1 story, 60 x 250 ft., brick and steel factory, brick foundation, on Elmwood Ave. About $100,000. Architect not selected.

O., Massillon—Lucius Mfg. Co. plans to build new 5 or 6 story, 100 x 200 ft. factory.

Mich., Detroit—Harper Hospital, Martin Pl., soon lets contract building 84 x 106 ft. heating plant. A. Kahn, Marquette Bldg., archt.

Mich., Grand Rapids—Amer. Can Co., 120 Bway., New York City, soon lets contract building rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on 6th St. About $1,000,000. M. M. Loony, 120 Bway., New York City, archt. and engr.

Mich., Saginaw—Pere Marquette R.R., 3rd St. Depot, plans to build 1 story, brick and steel roundhouse, concrete foundation, with fifty 110 ft. stalls. G. Tuthill, ch. engr.

Wis., Milwaukee—Amer. Metal Products Co., 671 Kinnickinnic Ave., preparing plans and soon receives bids building 1 story, 80 x 200 ft., brick and steel machine shop and foundry, concrete flooring and foundation, on Burnham St. Private plans. Noted July 1.

Wis., Milwaukee—C. Barkhausen, archt., Iron Blk., receives bids about July 16, building 3 story, 35 x 160 ft., rein.-con. and brick addition to wholesale bakery, rein.-con. flooring, concrete foundation, for Carpenter Baking Co., 102 7th St. Noted May 20.

Kan., Atchison—A. J. Harwi Hardware Co., 9th and Commercial Sts., having plans prepared by W. H. Sayler & Co., archts., Mutual Bldg., Kansas City, Mo., or 5 story, 75 x 150 ft., brick, rein.-con. and steel warehouse, rein.-con. flooring, concrete foundation. About $125,000.

Que., Montreal—Knit to Fit Mfg. Co., Ltd., St. Lawrence Blvd., soon receives bids building factory on Parthenais and Lavinere Sts. About $254,000.

Ont., Sudbury—Continental Wood Products Co., subsidiary of Continental Paper and Bag Co., Ltd., 48 Fermanagh Ave., Toronto, plans to build plant, here. About $500,000.

BIDS DESIRED

Mass., Brookline—Tuck & Gilman, archts. and engrs., 34 School St., Boston, receiving bids building 1 story, 70 x 220 ft., brick and concrete garage, rein.-con. flooring, concrete foundation, on Brainerd Rd., here, for K. Davies, Albany and Oswego Sts., Boston. About $80,000. Noted June 17.

Mass., Cambridge—Until Aug. 1, by F. F. Jonsberg, archt. and engr., 16 Central St., Boston, building 2 story, 100 x 275 ft., rein.-con. storehouse, rein.-con. flooring, concrete foundation, on Albany and Pacific Sts., here, for E. E. Gray Co., 154 Hanover St., Boston. About $250,000.

N. Y., Brooklyn—Until July 19, by Pub. Serv. Comn., 49 Lafayette St., New York City, building rein.-con. and steel storage yard, on Livonia Ave., here. About $600,000.

N. Y., Brooklyn—Until July 10, by L. Allmendinger, archt. and engr., 20 Palmetto St., building brick, rein.-con. and steel laundry, rein.-con. flooring, concrete foundation, on De Kalb Ave., for Sheldon-Foster Supply Co., c/o architect. About $200,000.

Md., Baltimore—Until July 13, by J. A. Dempwolf, archt., care of York Safe & Lock Co., York, Pa. building 1 and 2 story, 123 x 400 ft., rein.-con., and brick, factory, concrete foundation, on Wilkins Ave. and Catherine St., for Miller Safe & Lock Co., Fremont Ave. and Briscoe St. About $1,000,000. Noted July 8.

W. Va., Martinsburg—Natl. Shale Brick Co. receiving bids building clay product factory, brick. About $250,000.

O., Cleveland—Until July 15, by Pavelka Bros., East 37th St. and Bway., building 2 story, 57 x 65 ft., rein.-con., steel and brick addition to factory, rein.-con. flooring, concrete foundation. About $60,000. Anders & Reimers, Erie Bldg., archts. and egrs.

O., Cleveland—Until July 14, by Allen-Osborn Co., archts., Rose Bldg., constructing 4 story, 50 x 90 ft., rein.-con., steel and brick warehouse, rein.-con. flooring, concrete foundation, on East 69th St. and Lexington Ave., for Peoples Transfer Co., c/o L. E. Bevington, 6909 Lexington Ave. About $100,000.

Wis., Milwaukee—Scott & Mayer, archts., Colby-Abbott Bldg., receiving bids building 2 story, 60 x 112 ft. and 70 x 100 ft. varnish factory and warehouse, rein.-con. and brick, rein.-con. flooring, concrete foundation, for Patton Paint Co., 213 Lake St.

N. D., Fargo—Until July 25, by Advance Rumely Thresher Co. constructing 2 story, 125 x 250 ft. brick, concrete and steel factory and office building, rein.-con. flooring, concrete foundation. About $125,000. Noted Mar. 25.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., East Deerfield**—Boston & Maine R.R., North Sta., Boston, let contract building 1 story, 101 x 425 ft., brick and timber addition to engine house, concrete foundation, here, to H. Wales Lines Co., 134 State St., Meriden, Conn. About $150,000.

★**Conn., Bridgeport**—General Motor Serv. & Truck Co., 554 Fairfield Ave., let contract building 1 story, 110 x 120 ft., brick and rein.-con. service station, rein.-con. flooring, concrete foundation, on Holland Ave., to J. R. Sheehan, 211 State St. About $75,000.

★**Conn., Hartford**—L. White, 119 Portland St., let contract building 4 story, 52 x 175 ft., brick and rein.-con. warehouse, office, etc., rein.-con. flooring, concrete foundation, on Winthrop St., to J. H. Grozier Co., 721 Main St. About $200,000. Noted May 20.

★**N. Y., Buffalo**—Standard Oil Co., 1103 Elk St., let general contract building brick and steel boiler house, concrete flooring, at Atlas Wks., to J. W. Cowper Co., Fidelity Bldg.; 550 ton structural steel, to Kellogg Structural Steel Co., 31 Stone St. Total cost, $250,000.

★**N. Y., New York**—M. O'Dowd, Inc., c/o J. S. Maher, archt., 431 West 14th St., will build 3 story, 100 x 125 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 56 West 23rd St. About $100,000. Work will be done by day labor.

★**N. J., Newark**—McAllister Caron Co., 1001 Broad St., let contract building 2 story, 70 x 150 ft. garage and service sta-

Industrial Works (Continued)

tion, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Homack Constr. Co., 1399 Flatbush Ave., Brooklyn. About $100,000.

★**N. J., Passaic**—Manhattan Rubber Co., Willet St., let contract building rein.-con., brick and steel addition to boiler house, rein.-con. flooring, concrete foundation, to Stone & Webster, 120 Bway., New York City. About $500,000.

★**N. J., Trenton**—Amer. Bridge Co., foot Warren St., will build two 1 story additions to steel plant, 32 x 122 ft. and 78 x 200 ft., brick and steel, on South Warren St. About $65,000. Work will be done by day labor.

★**Pa., Jeanette**—Amer. Window Glass Co., Farmers' Bank Bldg., Pittsburgh, let contract constructing 1 and 2 story, concrete, brick and steel furnace building, to Hughes-Foulkrod Co., Oliver Bldg., Pittsburgh. About $300,000.

★**Md., Baltimore**—C. Read & Co., 16 North Greene St., let contract building 4 story, 19 x 73 ft., concrete and brick warehouse, concrete foundation, to R. H. Frazier & Son, 224 West Mulberry St. About $100,000.

★**W. Va., Beechbottom** (Wellsburg P. O.)—Beachbottom Power Co. let contract building 1 and 2 story, 100 x 140 ft. locomotive repair shop, etc., brick and steel, rein.-con. flooring, to Austin Co., Union Arcade, Pittsburgh. About $80,000.

★**Ga., Atlanta**—Southern Bell Telephone Co., 78 S. Pryor St., let contract constructing 4 story, rein.-con. building, to A. D. O'Brien, New Orleans, La. About $400,000.

★**O., Canton**—Schlemmer & Graber Co., 12th St., N. E., let contract constructing 1 and 2 story, 100 x 250 ft., brick, concrete and steel garage and service building, to E. J. Landor, Renkert Bldg. About $95,000.

★**O., Cincinnati**—Amer. Can Co., 120 Bway., New York City, let contract building plant, to include one 6 story, 73 x 260 ft. and one 4 story, 60 x 1400 ft., concrete buildings, also 1 story, 90 x 97 ft. and 80 x 160 ft., brick and steel buildings, rein.-con. flooring, concrete foundations, on Spring Grove Ave. and Fergus St., to Ferro Concrete Constr. Co., Richmond and Harriet Sts. About $1,000,000. Noted April 1.

★**O., Cleveland**—Cleveland Belting & Machine Co. let contract building 1 story, 112 x 140 ft. rein.-con., steel and brick addition to factory, rein.-con. flooring, concrete foundation, on Scranton Rd., to G. W. Hoffman, 3327 Broadview Rd. Aout $100,000.

★**O., Cleveland**—Hydraulic Pressed Steel Co. let contract building 1 story, 75 x 200 ft., rein.-con., steel and brick addition to factory, rein.-con. flooring, concrete foundation, at 5704 Hydraulic Ave., to Craig-Curtis Co., 1031 Guardian Bldg. About $75,000.

★**O., Cleveland**—Mendelsohn Co., 2110 Woodland Ave., let contract remodeling 3 story, 70 x 100 ft. cigar factory, brick and steel, brick foundation, to Kravitz-Yokelson, 821 East 88th St. About $60,000.

★**O., Cleveland**—Ohio Motor Vehicle Co. let contract building 2 story, 50 x 150 f' brick and steel factory, brick foundation, on Nottingham Rd., to Campbell Constr. Co., 2227 East 83rd St. About $75,000.

★**O., Cleveland**—Superior Screw & Bolt Mfg. Co., 810 Hippodrome Bldg., let contract building 1 story, 130 x 252 ft., rein.-con., steel and brick factory, rein.-con. flooring, concrete foundation, at 3652 East 93rd St., to McMillan Co., 1918 East 66th St. About $100,000.

★**Mich., Detroit**—Standard Reamer & Tool Co., Elmwood Ave., let general contract building 1 story, 50 x 100 ft., rein.-con., brick and steel factory, concrete foundation, to J. Finn & Son, Woodward Ave.; time and material basis.

★**Ill., Centralia**—See "Buildings."

★**Wis., Milwaukee**—Heil Co., 26th and Montana Aves., let contract building 1 story, 125 x 250 ft., brick and steel assembling plant, concrete flooring and foundation, on 26th Ave., to Klug & Smith, 40 Mack Blk.

★**Wis., Milwaukee**—Milwaukee Coke & Gas Co., foot of Greenfield Ave., will build 1 story, 50 x 125 ft., brick and steel addition to boiler house, concrete flooring and foundation. About $75,000. Work will be done by day labor.

★**Tex., Ft. Worth**—Cotton Belt Ry., 702 Houston St., let contract building brick roundhouse, 12 frame bunk houses, storeroom, Robinson hoist, water, light and sewer utilities, to W. C. Hedrick Constr. Co., Southwestern Life Bldg., Dallas. About $185,000.

★**Que., Montreal**—Dominion Type Foundry, Ltd., Toronto, let contract building 4 story, 51 x 122 ft. factory, on Herminie St., to Yolles & Rotenberg, Kent Bldg., Toronto. About $135,000.

★**Que., Montreal**—Colonial Wire Mfg. Co., Sheaver St., let contract building 3 story, brick and steel factory, concrete foundation, on St. Patrick St., to Robertson Bros., Bd. Trade Bldg. About $75,000.

Buildings

PROPOSED WORK

Me., Brunswick—Church—St. John the Baptist Society having plans prepared by C. R. Greco, archt., 8 Beacon St., Boston, for 1 story brick and stone. About $100,000.

Mass., Arlington (Boston P. O.)—High School—School Com. having plans prepared by H. B. S. Prescott, archt., 12 Pearl St., Boston, for 3 story, 65 x 140 ft., brick and steel, concrete foundation, on Massachusetts Ave. About $150,000. Noted April 15.

Mass., Boston—Bank and Office—Federal Trust Co., 85 Devonshire St., soon receives bids building 10 story, 24 x 27 ft., on Water and Washington Sts. J. R. Worcester, 79 Milk St., engr. McLoughlin & Burr, 88 Tremont St., archts. Noted April 8.

Mass., Brockton—School—Bd. Educ. soon lets contract building 2 story, brick, concrete and steel addition to Franklin School, concrete foundation. About $150,000. R. P. Jackson, 145 West Elm St., archt.

Mass., Clinton—Isolation Hospital—Clinton Hospital Assn. having plans prepared by Bigelow & Wadsworth, archts., 120 Tremont St., Boston, for 2 story, brick and concrete, on Highland St.

Mass., Fall River—High School—Pub. Bldgs. Dept. plans to construct 3 story, brick, concrete and steel, in South Park section. Architect not selected.

Mass., Fall River—Hospital—E. I. Marvell, archt., 57 North Main St., soon lets contract building 3 story, 40 x 100 ft., brick and concrete, rein.-con. flooring, concrete foundation, on High Ave., for Truesdale Hospital Corp. About $100,000.

Mass., Ipswich—Memorial—Town Memorial Comn. having plans prepared by Andrews, Ratoul & Jones, archt., 50 Congress St., Boston, for 2 story, brick and steel. About $150,000. Noted April 1.

Mass., New Bedford—High School—Bd. Educ. plans to build 3 story, brick, concrete and steel addition, on County St. F. I. Cooper Corp., 33 Cornhill St., Boston, archts.

Mass., Springfield—College—Y. M. C. A. College, 287 Hickory St., plans to construct college buildings to include science laboratory, gymnasium and dormitory, on campus. Architect not selected.

R. I., Providence—School—Pub. Bldg. Dept. rejected bids building 3 story, 40 x 100 ft., brick and steel, on Nelson Ave. and Jastram Ave. About $100,000. Work will be readvertised. Private plans. Noted June 24.

R. I., Providence—Theatre and Office—Bway. Theatre Corp. having plans prepared by W. R. Walker & Son, archts., 17 Custom House St., for theatre and office building. About $200,000.

Conn., Bridgeport—Club—B. P. O. E., 360 State St., having plans prepared by Davis & Dane, archts., 1024 Main St., for 3 story, brick, concrete and steel addition. About $100,000.

Conn., New Britain—Business—F. C. Walz, archt., 407 Trumbull St., Hartford, soon lets contract building 4 story, 100 x 100 ft., brick and concrete, concrete flooring and foundation, on Main St., for S. Shurberg, 55 Franklin St. About $200,000. Noted April 1.

Conn., Wallingford—Armory—State Armory Comn., Hartford, having revised plans prepared by W. P. Crabtree, archt., 272 Main St., New Britain, and soon receives bids building 1 story, 75 x 150 ft. drill shed and 3 story, 38 x 75 ft. armory, brick, concrete and steel, rein.-con. flooring, concrete foundation, on North Main St. here. About $100,000. Former bids rejected. Noted June 17.

N. Y., Arcade—School—Bd. Educ. receives bids about July 20, building brick, steel and stone, brick foundation. About $125,000. Tooker & Marsh, 101 Park Ave., New York City, archts. and engrs. Noted March 11.

N. Y., Buffalo—Laboratory—University of Buffalo, 24 High St., having plans prepared by McKim, Mead & White, archts. and engrs., 101 Park Ave., New York City, for 3 story, brick and stone, concrete foundation. About $300,000.

N. Y., Buffalo—School—Bd. Educ. rejected bids received June 25, building addition to schools on Hertel Ave. and Camden St., Park Lake Ave. and Amherst St., and Poplar and Doat Sts. J. Storer, sec. Noted June 17.

N. Y., New Dorp, S. I.—Nurses Home—Nurses Home & Seaside Hospital having plans prepared by York & Sawyer, archts. and engrs., 50 East 40th St., New York City, for brick and stone, brick foundation. About $150,000.

N. Y., New York—Exchange—New York Telephone Co., 15 Dey St., having sketches made by McKenzie, Voorhies & Gmelin, archts. and engrs., 1123 Bway., for 4 story addition on top of present building, on Fox St. and West Farms Rd., also additional side structure, brick, steel and stone, concrete foundation. About $350,000.

N. Y., New York—Home—Friedman Foundation Home for Men and Women having sketches made by H. A. Jacobs, 320 5th Ave., and I. H. Friedlander, 681 5th Ave., archts., for brick and stone, brick foundation, on Grand Concourse. About $1,500,000. D. B. Friedman, 206 Bway., pres.

N. Y., New York—Hotel—J. McE. Bowman Co., c/o Warren & Wetmore, archts. and engrs., 10 East 47th St., having plans prepared for addition to Hotel Commodore, on 42nd St. About $2,000,000.

N. Y., New York—Loft—A. W. Palmo, c/o J. E. Nitchie, archt. and engr., 63 Park Row, having plans prepared for 6 story, 50 x 100 ft., brick and steel, brick foundation, at 318 West 46th St. About $150,000.

N. Y., New York—Office—J. McE. Bowman & Co., c/o Warren & Wetmore, archts. and engrs., 10 East 47th St., having plans prepared converting Hotel Manhattan, on 42nd St., into office building. About $1,000,000.

N. Y., Ossining—Prison—C. F. Rattigan, supt. state prisons, Capitol, Albany, soon receives bids building 2 story, 120 x 160 ft., brick and rein.-con., concrete foundation. About $300,000.

N. J., Jersey City—Office, etc.—See "Industrial Works."

N. J., Newark—Exchange—New York Telephone Co., 15 Dey St., New York City, having sketches made by McKenzie, Voorhies and Gmelin, archts. and engrs., 1123 Bway., New York City, for 2 story, brick, steel and stone, concrete foundation, on Avon Ave., here. About $200,000.

N. J., New Brunswick—Theatre—W. B. Wills, Inc., archts. and engrs., 1181 Myrtle Ave., Brooklyn N. Y., preparing sketches for 1 story brick and stone, brick foundation, here. About $350,000. Owner's name withheld.

N. J., Westfield—School—Bd. Educ. rejected bids June 22, building 3 story, brick and stone, brick foundation. About $175,000. Work will be readvertised. Noted June 10.

Pa., Forty Fort (Kingston P. O.)—Housing—Community Housing Corp., Miners Bank Bldg., Wilkes-Barre, plans to build forty-seven 2 story, 40 x 50 ft., concrete and brick houses. About $250,000. Architect not selected.

Pa., Johnstown—Church—F. B. Hetrick, pastor, Dale United Exangelical Church, receives bids in August building brick and stone, rock foundation, on Bedford, Von Lunen and Fronheiser Sts. About $175,000. J. C. Fulton & Son, Uniontown, archts.

Pa., Lester—Housing—Western Electric Mfg. Co. had plans prepared by C. W. Brazer, archt. and engr., 1133 Bway., New York City, for two hundred 2 story, brick and stucco houses, brick foundation. About $1,000,000.

Pa., New Wilmington—Gymnasium—Westminster College having plans prepared by Thayer & Johnson, archts., 5716 Euclid Ave., Cleveland, O., for 3 story, 80 x 120 ft., rein.-con., brick and steel rein.-con. flooring, concrete foundation. About $150,000.

Pa., Plymouth—Comfort Station—Boro plans to build 1 story, 40 x 50 ft. marble and tile, rein.-con. flooring, rock foundation on Main and Hanover Sts. About $100,000. Architect not selected.

Buildings (Continued)

Pa., St. Marys—Hospital—F. A. Riangard, archt., Masonic Temple, Williamsport, soon lets contract converting monastery into hospital, and building power plant, for A. Kaul Memorial Hospital here. S. Kistler, pres.

Pa., Scranton—Store—Braunsteins Cloak Co., 134 Wyoming St., having plans prepared by E. H. Davis and G. M. O. Lewis, archts., Union Natl. Bank Bldg., for 5 story, 25 x 102 ft., rein.-con., steel and limestone, rein.-con. flooring, rock foundation. About $160,000.

Pa., Wilkes-Barre—Hotel—Sterling Hotel Co., Market and River Sts., having plans prepared altering and building 6 story, 70 x 80 ft., brick and steel addition. About $100,000. Private plans.

Md., Baltimore—Church—Christ Church, 11 East Hill St., having sketches made by H. B. Upjohn, archt. and engr., 456 4th Ave., New York City, for altering and building brick and stone addition, on Paul St. About $100,000. S. A. Huston, 16 East Biddle St., pastor.

Md., Catonsville—Church and Community—Catonsville Presbyterian Church having plans prepared by W. G. Beecher, archt., Catonsville, for 1 and 2 story, 55 x 145 ft., brick and stone, rock foundation, on Frederick Rd. About $200,000. J. A. Nesbit, Wyndcrest Ave., pastor.

Md., Ilcester — Chapel, Convent and Home — All Saints Protestant Episcopal Convent having plans prepared by Mottu & White, archts., 324 North Charles St., Baltimore, for 3 story, 75 x 150 ft., stone, concrete and stone foundation. About $100,000.

Md., Sparrows Point—Hospital—Bethlehem Steel Co. having plans prepared by J. E. Sperry, archt., 409 Calvert Bldg., Baltimore, for 2 story, 48 x 140 ft., rein.-con., brick and steel, concrete foundation. About $150,000. C. L. Reeder, Park Ave. and Saratoga St., Baltimore, engr.

W. Va., Burch—High School—City voted $100,000 bonds to build high school.

Ga., Atlanta—Hotel—C. P. Byrd, c/o Byrd Printing Co., 46 W. Alabama St., having plans prepared by A. T. Browne, archt., Forsyth Bldg., for 10 story, 400 room, on Peachtree and Kimball Sts. Cost to exceed $2,000,000.

Ga., Atlanta—Office—Atlanta Cotton Exchange plans to build 10 story, on Edgewood Ave. and Equitable Pl. About $1,500,000.

Ga., Atlanta—Office and Loft—Trust Co. of Georgia, Trust Co. of Georgia Bldg., plans to build 10 story office and loft building on Edgewood Ave. About $1,000,000.

Ga., Atlanta—Office and Store—Witt Investment Co. having plans prepared by Lockwood & Poundstone, archts., Forsyth Bldg., for 3 story, 80 x 200 ft., rein.-con., brick and terra cotta, rein.-con. flooring, on Peachtree and Baker Sts. About $200,000.

Fla., St. Petersburg—Hospital—L. Willie soon receives bids building 2 and 3 story, 35 x 100 ft. F. F. Jonsberg, 16 Central St., Boston, archt. and engr.

Tenn., Nashville—Hotel and Theatre—H. L. Sheetz is back of company being formed to build hotel and theatre. Owners plan to raise $1,000,000 stock to finance project.

Ky., Louisville—Temple—Louisville Odd Fellows plan to build temple. About $300,000.

Ky., Lyndon—School—Kentucky Military Institute plans to build new school. About $100,000.

O., Canton — School — Bd. Educ. having plans prepared by Thayer & Johnson, archts., 5716 Euclid Ave., Cleveland, for 2 story, 12 room, rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $250,000. C. Lane, clk.

O., Cleveland—Commercial—W. L. Murphy, East 9th St., plans to build 4 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 7210 Euclid Ave. About $150,000. Architect not selected.

O., Cleveland—Commercial—B. W. Reuban, c/o Superior Serv. Co., Plymouth Bldg., plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 105th St. About $100,000. Architect not selected.

O., Cleveland—Commercial—M. T. Wong, 719 Prospect Ave., plans to build 2 story, 60 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 42nd St. and Euclid Ave. About $100,000. Architect's name withheld.

O., Cleveland—Commercial and Theatre—E. Mandelbaum, Sloan Bldg., purchased site and plans to build 2 story, 110 x 200 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on East 105th St. and St. Clair Ave. About $200,000. Private plans.

O., Cleveland—Hotel—Hotel Olmsted Co. plans to build 11 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on Prospect Ave. near East 9th St. About $600,000. D. Olmsted, Superior Ave. and East 9th St., pres. H. L. Stevens Co., 30 North Michigan Ave., Chicago, archt.

O., Cleveland—Market—S. Cowan, Society for Savings Bldg., purchased site and plans to build 1 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 55th St. and Haltnorth Court. About $100,000. Architect not selected.

Ind., Indianapolis—Hospital—City plans to build 4 story, 88 x 175 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on West Michigan St. About $387,000. Architect not selected.

Mich., Detroit—Schools—Bd. Educ., 50 Bway., plans following new schools and additions in its building program for 1920-21: Firnane School, Fort St. and McDougal Ave., cost $165,000; Ferry School, Ferry and Jos. Campau Aves., $305,000; High School, La Salle Blvd., site, $1,000,000; schools on Broadstreet Blvd., $165,000, Charles Ave. site, $210,000; Joy Rd. and Lawton Ave., $165,000, Lumley and McGraw Aves., $330,000, Midland Ave. and Linwood Blvd., $390,000, Nevada and Lumpkin Aves., $165,000, Nevada and Fenelon Aves., $165,000, Richmond and Cameron Aves., $600,000, Codd Athletic Field, $700,000, Selden and Greenwood Aves., $800,000, Sylvester and Seneca Aves., $900,000, Fairview and Goethe Aves., $900,000; additions to Barstow School, Larned and Riopelle Sts., $140,000, Cooper School, $330,000, Crosman School, Taylor Ave. and Hamilton Blvd., $170,000, Davison School, $195,000, Doty School, 3rd and Calvert Aves., $185,000, Estabrook School, Linwood and McGraw Aves., $140,000, George School, Russel and Superior Sts., $230,000, Greenfield Park School, $60,000, Houghton School, Abbott and Brooklyn Aves., $215,000, Hutchinson School, $245,000, Leland School, $200,000, Lincoln School, Brady and St. Antoine Sts., $140,000, Lynch School, $185,000, Majeske School, Trombly and St. Aubin Sts., $200,000, Marcy School, Sylvester and Helen Aves., $140,000, Marr School, $140,000, Marxhausen School $200,000, Miller School, $500,000, Pattengill School, $330,000, Sampson School, Hegole and Ironwood Aves., $180,000, Thirkell School, 14th Ave. and La Salle Gardens, S., $200,000, all rein.-con., brick and steel, rein.-con. flooring, concrete foundations. Malcolmson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Mich., Grand Rapids—Hotel—Pantlind Hotel Co., Monroe St., N.W., having plans prepared by Warren & Wetmore, engrs., 16 East 47th St., New York City, for brick, steel and stone addition, concrete foundation. About $500,000.

Mich., Houghton—Chemistry — Michigan College of Mines, College Ave., had plans prepared and soon receives bids building 2

BRIDGE—WAREHAM, MASS.

Bids were received by Dept. of Pub. Wks., Div. of Highways and Cohasset Narrows Bridge Comn., State House, Boston, for constructing bridge over Cohasset Narrows between here and Bourne Twps., from (A) Holbrook, Cabot & Rollins Corp., 6 Beacon St., Boston (awarded contract); (B) George M. Byrne, Boston; (C) O. W. Blakeslee & Sons, Waverly St., New Haven; (D) T. A. Scott Co., Inc., New London, $391,747. The unit bids of the lowest three bidders were as follows:

	A	B	C
5,200 cu.yd. excavation (earth)	$1 25	$2 50	$1 60
50 cu.yd. excavation (ledge)	3 00	8 00	5 00
7,500 cu.yd. borrow	1 75	2 75	1 70
900 tons broken stone	6 00	6 50	6 50
12,000 gals. bituminous material	35	35	36
100 lin.ft. pipe, 10-in. vitrified clay	2 00	1 00	2 50
3,050 lin.ft. guard rail	1 00	1 25	60
1,500 tons riprap	4 50	5 00	10 00
2 drop inlets	100 00	50 00	40 00
Bridge complete (except surfacing), (lump sum)	200,000 00	233,731 50	268,500 00
300 cu.yd. loam stripping and placing	3 00	3 00	5 00
1,700 cu.yd. filling	1 75	2 75	1 50
20 lin.ft. precast concrete curb	3 00	1 50	— 1 50
70 sq.yd. seeding	3 00	7 00	1 00
900 sq.yd. surfacing roadway	3 50	3 50	3 60
1,100 sq.yd. sidewalk surfacing	1 00	1 00	75
Extended totals	$247,970	$299,664	$325,365

PAVING—PITTSBURGH, PA.

Bids were received by city, June 21, for grading, regrading, paving and repaving and otherwise improving 2nd Ave. from Liberty to Grant Sts., from (A) Booth & Flinn, 1942 Forbes St.; (B) J. H. McQuade & Sons Co., Rakewell Bldg.; (C) Thomas Cronin Co., South 17th and Muriel Sts. The unit bids were as follows:

	A	B	C
14,058 cu.yd. grading (excavation or embankment)	$2 00	$1 45	$2 75
16,500 sq.yd. new standard sheet asphalt pavement, 8-in. concrete foundation	5 20	5 16	4 70
1,750 sq.yd. new vitrified brick pavement, type 2, 8-in. concrete foundation	5 20	4 90	5 00
100 sq.yd. standard sheet asphalt resurfacing	5 00	5 50	4 00
20 sq.yd. old block stone pavement relaid on new concrete foundation	3 00	3 50	3 00
200 sq.yd. repaving with new standard sheet asphalt pavement	3 00	3 75	4 00
5,430 lin.ft. protected concrete curb, type 1 protection	1 30	1 45	1 50
596 lin.ft. protected concrete radius curb, type 1 protection	1 50	2 00	2 00
5 cu.yd. broken stone drain	4 00	5 00	5 00
216 sq.ft. granite crossings	2 00	1 50	1 50
960 sq.ft. granite crossings reset on new foundations	1 50	1 00	1 00
40,860 sq.ft. concrete sidewalk, type 1	25	50	30
500 sq.ft. flagstone sidewalk relaid on new foundation	125 00	125 00	100 00
15 catch basins, all classes	125 00	35 00	75 00
14 altering and adjusting catch basins and manholes	50 00	35 00	50 00
235 lin.ft. terra cotta pipe in catch basin connections, 15 in	4 00	4 25	6 00
4 standard storm inlets	20 00	20 00	15 00
1 cu.yd. extra concrete in pavement foundations	1 00	75	15 00
10 cu.ft. extra binder in asphalt resurfacing	100 00	100 00	100 00
1M. ft.b.m. sheeting and bracing place	125 00	95 00	75 00
20M. ft.b.m. lumber for temporary walks, etc	4 00	4 25	6 00
31 lin.ft. 15-in. T.C. pipe sewer	4 00	4 00	5 00
175 lin.ft. 12-in. T.C. pipe sewer	2 00	3 00	3 00
1,330 lin.ft. 9-in. T.C. pipe house laterals	4 00	7 50	5 00
1 cu.yd. additional sewer trench excavation	20 00	25 00	10 00
1 cu.yd. additional concrete in sewer trench	2 00	3 50	3 00
20 lin.ft. 9-in. T.C. pipe for storm inlets	30	50	30
Extended totals	$148,226	$156,979	$160,075

Buildings (Continued)

story, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $100,000. Herbst & Kuenzli, Caswell Blk., Milwaukee, Wis., archts.

Mich., Lansing — Memorial — Michigan Agricultural College having plans prepared by A. W. Bowd, archt., 127 West Allegan St., for 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $250,000.

Ill., Evanston—Club House—Glenview Golf Club having preliminary plans prepared by Holabird & Roche ,archts., 104 South Michigan Ave., Chicago, for 1½ story, brick and timber, concrete foundation. About $200,000.

Wis., Hawkins — School — Joint School Dist. 1 of Hawkins and South Fork, plans to build 2 story, concrete, concrete flooring. Oppenheimer & Obel, Wausau, archts.

Wis., Madison—Hospital—Madison General Hospital, 925 Mound St., having plans prepared by Schmidt, Garden & Martin, archts., 104 South Michigan Ave., Chicago, for rein.-con. and brick addition, rein.-con. flooring, concrete foundation. About $350,000.

Wis., Manitowoc — Hotel — Manitowoc Hotel Realty Co., c/o H. B. Kamschulte, archt., North 8th St., having preliminary plans prepared for 8 story, 100 x 155 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation.

Wis., Milwaukee—Sales, etc.—Van Ryn & De Gelleke, archts. and engrs., Caswell Blk., soon let contract constructing 2 story, 120 x 150 ft., rein.-con. and brick sales building and garage, rein.-con. flooring, concrete foundation, on Jackson St., for F. Achen Co., 155 Oneida St. About $100,000. Noted April 1.

Wis., Waukesha—Bank and Office—Natl. Exch. Bank, 311 West Main St., having plans prepared by H. C. Haeuser, archt., Colby-Abbott Bldg., Milwaukee, for 2 story, 65 x 75 ft., concrete, brick and stone, rein.-con. flooring, concrete foundation. Cost between $75,000 and 100,000.

Ia., Lawler—High School—Bd. Educ. having plans prepared by Jacobson & Jacobson, archts., Owatonna, remodeling 2 story, 70 x 72 ft., rein.-con. and brick grade school into high school. About $100,000. F. Tustison, 335 Auditorium Bldg., Minneapolis.

Ia., Sioux City—Temple — Scottish Rite Com. having plans prepared by H. Holmes, 30 North Michigan Ave., Chicago, and Beuttler & Arnold, Grain Exch. Bldg., archts., for 150 x 210 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $1,500,000. Noted Jan. 8.

Minn., Minneapolis — School — Bd. Educ. having plans prepared by E. H. Enger, archt., c/o Bd. Educ., for Clinton grade school, 2 story, 75 x 200 ft., rein.-con. and brick, on 28th St. and 4th Ave. About $175,000.

Minn., St. Paul—Hospital—Bethesda Hospital Assn., 249 E. 9th St., having plans prepared by Magney & Tusler, archts. and engrs., 450 Builders Exch., Minneapolis, for 5 or 6 story, rein.-con., on Capitol Hill. About $800,000. A. J. Kranz, supt.

Minn., Thief River Falls — School — Bd. Educ. rejected bids received June 23, building 2 story, brick and tile. About $125,000. Project postponed indefinitely. P. O. Myhrum, clk. Sund & Dunham, 512 Essex Bldg., Minneapolis, archts.

Kan., Lincoln—School—Bd. Educ. having plans prepared by W. H. Taylor & Co., archts., Kansas City, Mo., for 2 story school, here. About $125,000. W. W. Troupe, secy.

Kan., Parsons—High School—Bd. Educ. having plans prepared by T. W. Williamson & Co., archts., 418 Central Natl. Bank Bldg., Topeka, for 2 story, 99 x 140 ft., rein.-con. and cement. About $175,000. J. B. Barnhill, secy.

Kan., Pittsburg — High School — Bd. Educ. having plans prepared by N. S. Spencer & Son, archts., 37 West Van Buren Ave., Chicago, for 3 story school. About $500,000. C. S. Risdon, secy.

Kan., Topeka—Exchange—Bell Telephone Co. having plans prepared by J. R. Timlin, archt., 668 Boatman's Bank Bldg., St. Louis, Mo., for 2 story, 60 x 109 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $140,000. Noted June 3.

S. D., Brookings—Bank and Office—Midland State Bank having plans prepared by L. F. Dow & Co., archts. 381 Jackson St., St. Paul, for 2 story, 28 x 85 ft., rein.-con., brick and Bedford rock. About $100,000.

S. D., DeSmet—High School—Bd. Educ. having plans prepared by W. L. Alban, archt., Endicott Bldg., St. Paul, for 2 story, 60 x 133 ft., brick, concrete and stone. About $100,000.

S. D., Presho—School—School Bd. having preliminary plans prepared by W. E. Hulse & Co., archts., 309 Securities Bldg., Des Moines, Ia., for 2 story, 56 x 86 ft., brick and concrete, rein.-con. flooring, concrete foundation. About $125,000.

N. D., Hankinson — High School — Bd. Educ. having plans prepared by Buechner & Orth, archts., Shubert Bldg., St. Paul, for 2 story, 65 x 130 ft., brick and rein.-con. About $135,000. Terry-Schulte Eng. Co., 484 Endicott Bldg., St. Paul, engrs.

Mont., Helena—Schools—Helena School Dist. voted $225,000 bonds to build Hawthorne school and auditorium in high school. Noted Feb. 26.

Mo., St. Louis—Hotel—Marquette Hotel Co., 18th and Washington Sts., plans to build 10 story, 150 x 150 ft., rein.-con., steel and brick, on Washington Ave. Cost to exceed $1,000,000. Architect not selected. T. P. Clancy, mgr.

Mo., St. Louis—School—Evangelical Lutheran Synod, c/o R. Jesse, Mt. Calvary Church, plans to build school. About $1,000,000. Architect not selected.

Tex., Breckenridge — Bank — Guaranty State Bank having plans prepared for 5 or 7 story, 100 x 150 ft., rein.-con. and brick, concrete foundation, on Walker St. About $250,000.

Tex., Waco—Home and School—State Bd. Control, Austin, receives bids about Aug. 1, building home and school, here, for neglected and dependent children. Plans include several cottages, heating plant, etc. About $150,000. Ross & Reed, Waco, archts.

Que., Montreal — Bank — K. Rea, archt., Beaver Hall Hill, soon receives bids building 2 story, 50 x 55 ft., concrete, brick, steel, and stone, concrete foundation, on 2nd Ave., for Bank of Montreal, St. James St.

B. C., Vancouver—Hotel—Canadian Pacific Ry., Windsor St., Montreal, Que., having plans prepared by Warren & Wetmore, archts. and engrs., 10 E. 47th St., New York City, building brick, steel and stone addition, concrete foundation, on Georgia St. About $1,500,000.

BIDS DESIRED

N. Y., Brooklyn — Nurses Home — Until July 15, by Dept. Pub. Welfare, Municipal Bldg., New York City, furnishing labor and material building and completing additions, on grounds of Kings Co. Hospital, Clarkson St. About $950,000. B. S. Coler, comr. Noted May 20.

N. Y., Far Rockaway—School—Until July 12, by C. B. J. Snyder, supt. school bldgs., Municipal Bldg., New York City, altering and building addition to P. S. 39, on southerly side of State St. between Roanoke and Cleveland Aves., here. Former bids rejected. Noted June 10.

Pa., Media—Office and Bank—Until Aug. 2, by C. W. Brazer, archt. and engr., 1133 Bway., New York City, building brick, steel and stone, for Media Title & Trust Co., 11 South St. About $300,000. Noted June 3.

Md., Baltimore—Community—Until Aug. 1, by B. Frank, archt., 328 North Charles St., building 4 story, 50 x 130 ft., concrete, steel and brick, concrete foundation, for Oheb Shalom Congregation, Eutaw Pl. and Lanvale St. About $150,000. Reliance Eng. Co., 4th Natl. Bank Bldg., Cincinnati, O., engrs. Noted May 13.

D. C., Wash.—School—Until July 14, by secy Bd. Comrs. altering and building addition to Deanwood School 153, Whittingham Pl.; advertised in this issue.

O., Warren—High School—Until July 14, by Bd. Educ., c/o J. Bookwalther, building 2 story, 120 x 150 ft., rein.con., steel and brick, rein.-con. flooring and concrete foundation. About $350,000. R. J. Keich, Western Reserve Natl. Bank Bldg., archt.

Mich., Kalamazoo — Manual Arts — Until July 15, by T. E. Johnson, secy. State Bd. Educ., constructing 2 story, 96 x 250 ft. manual arts building, rein.-con., brick and steel, rein-con. flooring, concrete foundation, on Oakland Drive, to contain woodworking shops, foundry equipment and auto mechanic shops. H. H. Turner, 923 Michigan Trust Bldg., Grand Rapids, archt.

Wis., South Milwaukee—Schools — Until July 13, by Bd. Pub. Wks., building 2 story, 75 x 90 ft, grade school concrete and brick, rein-con. flooring, concrete foundation, also 2 story, 40 x 60 ft., brick and timber addition to school in 2nd Ward. About $100,000. C. O. Chromaster, 144 Oneida St., Milwaukee, archt.

Minn., Lake Park—School—Until July 20 by Bd. Educ., building 2 story, 60 x 90 ft brick and frame. About $100,000. Sund & Dunham, 512 Essex Bldg., Minneapolis, archts. Noted May 13.

Minn., Marble—City Hall and Municipal Bldg.—Until July 19, by Bd. Village Trustees, building 2 story, 80 x 120 ft. rein.-con. brick and tile, concrete flooring. About $100,000. C. H. Parsons, 600 Builders Exch., Minneapolis, archt.

Kan., Emporia—Hospital—Until July 19 by Lyon Co. Hospital Bd., building 4 story 40 x 150 ft., rein.-con., rein.-con. flooring J. H. Felt & Co., 802 Grand Ave. Temple Kansas City, Mo., archts.

S. D., Ipswitch—School—Until July 19 by Bd. Educ. building 2 story, 75 x 120 ft. About $100,000. E. M. Paulu, secy. Foss & Foss, St. Cloud, Minn., archts.

N. D., Jamestown — High School — Until Aug. 1, by N. C. Koontz, supt. Bd. Educ., building 3 story, 150 x 185 ft., brick, rein.-con., steel and tile, rein.-con. flooring, concrete foundation. About $200,000. Noted June 24.

N. D., Lankin—High School—Until July 26, by Bd. Educ. Galt School Dist. 39, building consolidated high school. K. P. Napper, clk.

N. D., Oakes—High School—Until July 20, by Bd. Educ., building 3 story, 68 x 155 ft., brick. About $250,000. T. H. Ferber, clk. Bell & Kinports, 909 Andrus Bldg., Minneapolis, archts. C. F. Tweed, 524 Metropolitan Bank Bldg., Minneapolis, engr. Noted April 1.

N. D., Oberon — School — Until Aug. 9, by School Dist. 16, building 3 story, 58 x 92 ft., brick, Bedford stone and rein.-con. About $100,000. Braseth & Rosattl, Fargo, archts.

Que., Montreal—Church—Until July 19, by St. Henry Methodist Church, building 50 x 110 ft., brick, steel and stone, concrete foundation, on St. Antoine and Convent Sts. About $100,000. Address F. Tripp, Convent St.

Que., Montreal—Theatre—Until July 15, by Century Theatre Co., Ltd., building 50 x 105 ft., rein.-con. and brick, concrete foundation, on Briand St.

Que., Pointe Aux Trembles—Church—Montreal East Presbyterian Church receiving bids building 50 x 75 ft., brick and steel, concrete foundation, here. Address A. Pope, Pointe Aux Trembles.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Dorchester** — Exchange — New England Telephone & Telegraph Co., 50 Oliver St., Boston, let contract building 3 story, 116 x 200 ft., brick, concrete, tile and steel ,on Adams and Robinson Sts., here, to D. L. Shepard, 46 Cornhill St., Boston. About $700,000.

★**Mass., Lawrence**—Parish House—Grace Episcopal Church, Jackson and Gardner Sts., let contract building 2 story, 50 x 100 ft., to E. A. Peabody & Son, Lawrence. About $100,000. Noted June 24.

★**Mass., Lynn**—Store—Somes & Parsons, archts., 1 Beacon St., Boston, let contract to C. H. Cunningham & Son Co., 23 Central Ave., building 3 story, 100 x 100 ft., brick and steel, concrete foundation, on Union St., for J. Goodman, Market St. About $100,000. Noted June 10.

★**Mass., Worcester** — School — School Comn. let contract building 2 story, 50 x 91 ft., brick and concrete addition to school on Rice Sq. and 1 story, 14 x 63 ft. boiler house, concrete foundation, to Keefe Bros., 104 Woodland St. About $100,000. Noted June 3.

★**Conn., South Manchester** — Housing—Chaney Bros., Hartford Rd., let contract building sixteen 2 story, frame houses for workmen, concrete foundation, on West and Fairfield Sts., to G. Schreiber, 285 West Center St. About $125,000.

★**N. Y., New York** — Office — Phillips-Jones Co., 1150 Bway., let contract building 8 story, brick, steel and stone, concrete foundation, at 1223 Bway., to G. R. Davis, 30 East 42nd St. About $500,000.

Buildings (Continued)

★**N. Y., New York**—Office—Pitt & Scott, 60 Pearl St., let contract building 5 story, 25 x 85 ft., brick, steel and stone, concrete foundation, at 55 Front St., to G. Genovese & Son, 645 Crescent St., Long Island City. Noted June 24.

N. Y., New York—Loft—Until July 10, by M. H. Cardo, archt. and engrs., 160 West 45th St., building 4 story, brick and steel, concrete foundation, at 40-44 Bethune St., for Wilson Paper Stock Co., c/o architect. About $250,000.

★**N. Y., Richmond Hill** (Jamaica P. O.)—Church—Heyl & McClaymount, archts. and engrs., 15 West 38th St., New York City, let contract to T. L. Rubsanen, 7641-86 Drive Union Course, building 1½ story, brick and stone, brick foundation, for 1st Church of Christ Scientist, Greenwood Ave. About $110,000. Noted June 10.

★**N. Y., Watertown**—Store and Office—F. W. Woolworth, 233 Bway., New York City, let contract building 6 story, brick, steel and stone, concrete foundation, here, to C. T. Wills, 286 5th Ave., New York City. About $800,000.

★**Pa., Duquesne**—School—Bd. Educ. let contract building 2 story, 35 x 134 ft., brick and steel addition, concrete foundation, on Hill St., to Hodder Constr. Co., 817 Talbot St., Braddock. About $100,000.

★**Pa., Harrisburg**—Office—State Bd. Control let contract for excavation and building concrete, stone, brick, marble and tile foundation for 3 story, 100 x 500 ft., to S. W. Shoemaker, 1545 North 6th St. About $684,000. Noted May 20.

★**Md., Baltimore** — Church — Church of Blessed Sacrament, York Rd., near Arlington Ave., let contract building 1 story, 70 x 120 ft., stone and concrete, stone foundation, to J. J. O'Connor, Knickerbocker Bldg. About $100,000; cost plus percentage basis.

★**N. C., Wilmington** — Church — Trinity Methodist Episcopal Church let contract building brick church, to O. G. Gulby, Wilmington. About $100,000.

★**Ga., Atlanta** — Hospital — Davis & Fischer, Linder St., let contract building rein.-con., brick and tile, rein.-con. flooring, to F. T. Heiffer, Peters Bldg. About $250,000.

★**O., Cleveland**—School—Bd. Educ., East 6th St. and Rockwell Ave., let contract building 1 story, 212 x 212 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 92nd St. and Parkgate Ave., to Drummond-Miller Co., 4500 Euclid Ave., $637,300. Noted June 24.

★**Ill., Centralia** — Station, etc. — Illinois Central Ry., Chicago, let contract building passenger station, freight house, and power house, also paving team track, here, to J. E. Nelson & Sons, 3240 South Michigan Blvd., Chicago. About $400,000.

★**Ill., Oak Park**—High School—Bd. Educ. let general contract building 3 story, 143 x 166 ft. addition to high school, on Ontario St. and East Ave., also 1 story boiler room, rein.-con. and brick, rein.-con. flooring, concrete foundations, to Gary & McClintock, 1020 North Blvd. About $200,000.

★**Wis., Kenosha**—Theatre—C. Pacini, 256 Main St., let contract building 2 story, rein.-con. and brick, rein.-con. flooring, to G. Linderman, 237 Lake Ave. About $100,000.

★**Ia., Sioux City** — High School — Bd. Educ. let contract building West Junior High School, 3 story, rein.-con., brick and steel, to Guarantee Constr. Co., Sioux City, $212,856. Noted April 22.

★**Ia., Sioux City**—Hotel—Howard Hotel Co., 302 Nebraska St., let contract remodeling 2 story, 50 x 150 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to G. Parks Constr. Co., Omaha, Neb. About $125,000; cost plus percentage basis.

★**Kan., Great Bend**—Hospital—Sisters of St. Dominic let contract building 3 story, 50 x 150 ft., concrete and steel, rein.-con. flooring, to T. C. Cork, Great Bend. About $150,000. Noted June 10.

★**Kan., Hiawatha**—Auditorium—City let contract building 2 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to Sanneman Bros. Constr. Co., Clay Center, $119,843. Noted June 24.

★**Kan., Parsons**—School—Bd. Educ. let contract building 2 story, 40 x 190 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to Widmer & Price, Parsons, $172,219. Noted June 24.

★**N. M., Las Vegas**—College—Bd. Regents, New Mexico Normal University, 820 Main Ave., let contract constructing 2 buildings at university, here, to W. G. Rupp, 301 East Topeka St., Trinidad, Col., $148,750. Noted Nov. 20.

★**Wash., Spokane** — Home — Salvation Army, 1418 North Adams St., let contract building 3 story, 50 x 142 ft., steel and concrete, concrete foundation, to F. Phair, 416 2nd Ave. About $120,000.

★**Ont., Leamington**—School—Bd. Educ. let general contract building 2 story, 8 room, concrete, brick and steel, rein.-con. flooring, concrete foundation, to J. Burroughs, Windsor. Total cost, $125,000.

Federal Government Work

PROPOSED WORK

Order 166—Bureau Yards & Docks, Navy Dept., Wash., D. C.—It is directed that hereafter no estimated cost to be given or published on prospective projects, either prior to or during period of advertisement.

Mo., St. Louis—Bridge, etc.—U. S. Engr. Office, Custom-house, soon receives bids furnishing and erecting all steel traveling bridge, 500 ft. long, 70 ft. high above top of rail.

BIDS DESIRED

Mass., Fall River — Remodeling Post Office and Customhouse—Until July 28, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.; advertised in this issue.

N. Y., Brooklyn—Kitchen and Commissary Equipment—Spec. 4177—Until July 14, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing at Naval Hospital, here; $10 deposit required for plans and spec. Noted April 29.

D. C., Wash.—Sewers—Until July 21, by Dist. Comrs., Dist. Bldg., laying 2,750 lin. ft. 4 ft. 6 in. x 5 ft. 6 in. brick and concrete sewer pipe; advertised in this issue.

D. C., Wash.—Superstructure—Until July 30, by Dist. Comrs., 509 Dist. Bldg., constructing superstructure of Rock Creek Pumping Sta.; advertised in this issue.

Va., Cape Charles—Wharf, Bulkhead, etc. Until July 12, by Treas. Dept., Wash., D. C., building wharf, bulkhead, breakwater and dredged channel for U. S. Quarantine Sta. Craney Island, here. J. A. Wetmore, superv. archt.

Tenn., Chattanooga—Extending Workroom—Until July 28, by Treas. Dept., Wash., D. C., extending workroom, at U. S. Post Office and Courthouse, here. J. A. Wetmore, superv. archt.

Tenn., Memphis—Portland Cement—Until July 15, by Mississippi River Comn., 1st and 2nd Dists., Customhous, furnished and delivering 40,000 sacks portland cement; advertised in this issue.

Mich., Battle Creek — Remodeling Post Office—Until July 30, by Treas. Dept., Wash., D. C., remodeling here. J. A. Wetmore, superv. archt.

Tex., Galveston—Surface Drainage System, etc.—Until July 27, by Treas. Dept., Wash., D. C., for new surface drainage system, new spray apron, repairing riprap, etc., at U. S. Quarantine Sta., here. J. A. Wetmore, superv. archt.; advertised in this issue.

Idaho—Road Work—Until July 14, by Bur. Pub. Rds., Ogden, Utah, furnishing labor and material gravel surfacing 6.6 mi. Montpelier-Afton Rd., Caribou Natl. Forest, involving 2,100 cu.yd. rock and 32,000 cu.yd. common excav., etc. B. J. Finch, ch. engr.

Utah, Ogden—Railroad—Until July 21, at office of Constr. Quartermaster, Hudson Bldg., constructing 10 mi., at Ogden Arsenal; advertised in this issue.

Ore., Astoria — Remodeling Customhouse and Post Office—Until July 29 by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore superv. archt.

Cal., Colusa—Excavating Canal—Until July 14, by U. S. Recl. Dist. 2047, excavating canal and building structures involving 3,500,000 cu.yd. excav. and 12,000 cu.yd. rein.-con., in Yolo, Colusa and Glenn Counties. J. F. Watt, secy.

Cuba, Guantanamo—Pier—Spec. 4165—Until July 21, by Bureau Yards & Docks, Navy Dept., Wash., D. C. building 50 x 260 ft. rein.-con. at Naval Sta., here; advertised in this issue.

H. T., Pearl Harbor—Temporary Storehouse—Spec. 4229—Until Aug. 11, by Bureau Yards & Docks, Navy Dept., Wash., D. C., Pub. Wks. Office, Navy Yard, Mare Island, Cal. and Pub. Wks. Office, Naval Sta., Pearl Harbor, building here; advertised in this issue. Noted June 17.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Dredging—U. S. Engr. Office, Custom House, let contract dredging in Malden River, to Mars-Gerrish Dredging Co., Boston, $132,798. Noted May 13.

★**R. I., Newport**—Repairs and Alterations to Buildings—Spec. 4246—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract repairing and altering, at Naval Training Sta. here, to T. E. Keeher, Waits Wharf, $16,239 (45 days).

★**R. I., Newport**—Repairs and Alterations to Plumbing and Heating Systems—Spec. 4245—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract repairing and altering in certain buildings at Naval Training Sta., here, to T. B. Connolly, 339 Thames St., $56,400 (90 days).

★**Conn., New London**—Fresh Water Line—Spec. 4244 Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract laying at Submarine Base, here, to N. Benoveniti & Sons, 76 Goshen St., $9,867. Noted July 1.

★**N. J., Cape May**—Repairing and Building Additions to Power Plant—Spec. 4235—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract, to G. S. Curtis, 324 Delaware Ave., $3,553 (75 days). Noted July 1.

★**Pa., Pittsburgh**—Steel Lock Gates—U. S. Engr. Office, 2111 Farmers Bank Bldg., let contract furnishing and delivering for Lock 6, Monongahela River, to Independent Bridge Co., May Bldg., $34,454. Noted June 24.

★**Md., Indian Head**—Monorail Hoists, etc.—Spec. 4158—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract for 2 monorail hoists and track equipment for Naval Proving Ground and power factory, to Shepard Electric Hoist Co., 1406 Lexington Bldg., Baltimore, $15,600 (225 days). Noted June 3.

★**D. C., Wash.**—Alterations and Additions to Laboratory—Spec. 4182—Bureau Yards & Docks, Navy Dept., let contract altering and building additions to aeronautical engine testing laboratory, at Bldg. 146, Navy Yard, to Hyde & Baxter, 711 13th St. N. W., $14,990 (140 days). Noted July 1.

★**D. C., Wash.**—Dragline Excavators—Recl. Surv. let contract furnishing 1 dragline excavator Type "B," to F. C. Austin Mchy. Co., 80 East Jackson Blvd., Chicago, $7,850; 6 Type "B" and 1 Type "A," to Pawling & Harnischfeger Co., 38th St. and National Ave., Milwaukee, Wis., $65,500 and $16,750 respectively; 2 Type "A," to Bucyrus Co., South Milwaukee, $36,335; 7 lighting sets for Type "B" and 3 for Type "A" draglines, to Brancft Ranch Lighting & Appliance Co., 1525 16th St., Denver, $3,950. Authority was granted to purchase 10 digging and 10 cleaning buckets, cost $9,831.

★**D. C., Wash.** — Standard Gauge Flat Cars—U. S. Engr. Office, War Dept., let contract, to Amer. Car & Fdry Co., 370 Babcock St., Buffalo, N. Y., $49,000.

★**S. C., Charleston** — Road Work — Spec. 4237—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract grading, draining and resurfacing roads with concrete, to W. T. Hadlow, 15 Baldwin Bldg., Jacksonville, Fla., $26,320 (150 days). Noted June 24.

★**Fla., Pensacola** — Dirigible Hangars — Spec. 4172—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract for additional permanent construction, at Naval Air Sta., here, to C. H. Turner, 17½ Palafox St., $41,307 (130 days). Noted July 1.

★**Cal., San Diego**—Bakery Equipment—Spec. 4192—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract furnishing and installing, here, to R. S. Steen, Los Angeles, $16,700 (120 days). Noted June 10.

★**Cal., San Diego**—Laundry Equipment—Spec. 4191—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract furnishing and installing in industrial buildings, at Marine Corps Base, here, to T. Haverty Co., San Diego, $18,290 (150 days). Noted May 27.

Cal., San Diego—Paving—Pub. Wks. Office, Ft. Rosencrans, received lowest 3 bids June 21, paving 176,000 sq.ft. highway, 20 ft. wide, with 6 in. concrete and 3 ft. shoulders, from D. H. Ryan, San Diego, $66,712; Fairchild-Gilmore-Wilton Co., 25-14 St., $67,955; F. V. McPeak, 2415 Grammercy Park, Los Angeles, $76,225.

Miscellaneous

PROPOSED WORK

Underground Heating Mains,—Macy, N. Y.—State Hospital Comn., Capitol, Albany, soon receives bids building 1¼-12 in. underground steam mains, etc. at Utica State Hospital, here. About $600,000.

Sewer Bricks—New York, N. Y.—H. H. Curran, pres. Manhattan Boro., received no bids June 18, furnishing and delivering 75,000 sewer bricks. About $450,000. Work will be readvertised. Noted June 10.

Stokers, Tunnel, etc.—Detroit, Mich.—City plans to improve heating plant at Municipal Courts Bldg. Plans include the purchase and installation of automatic stokers for present boilers, moving 2 boilers from present location and reinstalling same, building tunnel and 300 ft. steam lines to Receiving Hospital. About $25,000. Esselityn, Murphy & Hanford, Marquette Bldg., engrs. J. Scott & Co., Dime Bank Bldg., archts.

Dam—Grand Rapids, Mich.—Eastside Water Power Co. having plans prepared by Burd & Griffels, engrs., Kelsey Bldg., reconstructing dam and canal headgates on Grand River. About $40,000.

Dam—Maple Ridge, Mich.—Alpena Power Co., Alpena, petitioned Bd. Supervs. for permission to build concrete dam across Thunder Bay River, 36 ft. high with sluice way for logs, in Maple Ridge Twp. Private plans.

Subways and Viaducts—East St. Louis, Ill.—City having preliminary plans made for subways and viaducts, to eliminate grade crossings. E. J. Harper, city engr.

Pump, Motors, etc.—Farmington, Minn.—City plans to purchase 500 gal. duplex or triplex pump, motor, etc., to be used in concrete pump pit. About $10,000. J. P. Druar, Globe Bldg., St. Paul, engr.

Tank and Pump—North Branch, Minn.—See "Sewers."

Harbor Improvements—Long Beach, Cal.—City plans election to vote on $980,000 bonds to dredge, build bulkheads and repair wharf. H. de Ruiz, city engr.

Pipe and Pumps—Stamford, Ont.—See "Waterworks."

BIDS DESIRED

Dam—Inlet, N. Y.—Until July 29, by State Conservation Comn., DeGraaf Bldg., Albany, furnishing labor and material building rein.-con. dam, to replace one at Sixth Lake here. W. S. Carpenter, secy.; advertised in this issue.

Road Materials—New York, N. Y.—Until July 13, by Bd. Purchase, Municipal Bldg., furnishing and delivering wood paving blocks, sand, cement, broken stone, to Dept. Plants & Structures.

Truck—St. George, S. I., N. Y.—Until July 12, by C. D. Van Name, pres. Richmond Boro., furnishing and delivering one 5 ton automobile truck and 55,000 gal. bituminous material.

Gate Boxes, Covers, etc.—Jersey City, N. J.—Until July 13, by Bd. City Comrs., furnishing and delivering 15 ton water gate boxes and covers, and 15 ton sewer manhole frames and covers.

Steam Pump—Trenton, N. J.—Until July 23, by Bd. Comrs., for sale of 10,000,000 gal., triple expansion, vertical type, E. P. Allis steam pump, which has become too small for city. L. D. Hirsch, clk.; advertised in this issue.

Stone Crusher and Road Roller—St. Clairsville, O.—Trustees Pease Twp. receiving bids for combined stone crusher and road roller.

Conduits, etc.—Detroit, Mich.—Until July 20, by Pub. Lighting Comn., 56 Atwater St., E., building conduits, manholes, handholes and lamp post foundations on various streets. Noted April 8.

Truck—Fond du Lac, Wis.—Until July 15, by A. Hunter, city clk., furnishing 1 ton truck.

Hydraulic Jacks—Minneapolis, Minn.—Frankman Bros. Bridge & Constr. Co., 911 Metropolitan Life Bldg., receiving bids for two 100-125 ton hydraulic jacks. About $800.

Road Grader—Mott, N. D.—Until July 15, by E. C. Roberts, aud. Hettinger Co., for 7,000 lb. road grader with 12 ft. cutting edge.

Sand Blast Machine—St. Louis, Mo.—Missouri Pacific R.R. Co., Ry. Exch. Bldg., receiving bids for 1 sand blast machine for cleaning steel work. C. A. Howe, purch. agt.

Dam—Summer Lake, Ore.—Until July 13, by Secretary Summer Lake Irrigation Dist., furnishing labor and material for dam on Anna River, involving 11,300 cu.yd. miscellaneous excav., 56,600 cu.yd. embankment, 290 cu.yd. rein.-con., 115 cu.yd. rubble masonry and 3,700 sq.yd. rock paving. Baar & Cunningham, Spalding Bldg., Portland, engrs.

Foundation—Ottawa Ont.—Until July 15, by Bd. Control, ex. and building foundation for 6 story hospital, on Carling Ave., involving 10,000 cu.yd. excav., 2,200 cu.yd. concrete and 1,500 sq.yd. water-proofing. About $200,000. A. F. Macallum, city engr.

60

Road Contracts let per week

TRUCKS will have easier going and fewer breakdowns if road-work continues to go forward at its present speed of about 60 *contracts let per week*, valued at six or seven million dollars.

In the week ending July 1, contracts for 64 street and road jobs were awarded aggregating $6,723,000; while in the seven days prior to June 3—one month earlier—57 contracts were placed worth a total of $6,932,000 (including a million dollar, 11-mile highway in Florida).

Bids

are wanted

This week on page 17 we are calling attention to 63 road projects on which bids are wanted. Are you going after some of this work?

Road Roller and Graders, etc.—St. Thomas, Ont.—Elgin Co. receiving bids for road rollers, graders, scrapers, etc. About $20,000. F. Pinco, Court House, road engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Bowl—New Haven, Conn.**—Yale University let contract completing upper portion of bowl, to Sperry Eng. Co., 82 Church St. About $250,000. Noted June 10.

Broken Stone and Trap Rock—Brooklyn, N. Y.—E. Riegelmann, boro. pres., received bids June 30, furnishing and delivering 7,300 cu.yd. 2½ in. broken stone and 2,700 cu.yd. trap rock, from New York Trap Rock Corp., 17 Battery Pl., New York City, $37,000; J. J. Guinan, 2314 Gravesend Ave., $39,000; J. Jennings, Belle Harbor, $40,000. Noted June 24 under "Streets and Roads."

★**Freight Shed and Pier—New York, N. Y.**—M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., North River, let contract building at foot of East 20th St., East River, to Associated Contractors, 17 West 42nd St., $183,950. Noted June 17.

★**Transformer Station—New York, N. Y.**—New York Edison Co., Irving Pl. and 15th St., let contract building brick and steel rein.-con. flooring, concrete foundation, on 73d St., to Kenn-Well Contg. Co., 841 Bway. About $150,000. Noted June 3.

★**Wood Paving Blocks—New York, N. Y.**—H. H. Curran, pres. Manhattan Boro., let contract furnishing and delivering 200,000 wood paving blocks, to Amer. Creosoting Co., 17 Battery Pl. $13,556. Noted June 10.

★**Oil Tanks—Baltimore, Md.**—Prudential Oil Co., Inc., 3rd St. and 4th Ave., let contract erecting 12 steel oil tanks, one, 102 x 106 ft., seven, 25 x 30 ft., two, 30 x 40 ft., and two, 35 x 60 ft., to Bartlett, Hayward Co., Scott and McHenry Sts. About $143,000.

★**Street Material—Nashville, Tenn.**—City let contract furnishing 2,400 bbl. portland cement, to T. L. Herbert & Sons, 173 3rd Ave. N., $4.12 per bbl., 8,000 gal. asphaltic cement, to J. E. Fox, $43.53 per ton.

Sulphate and Aluminum—Akron, O.—City received bid June 17, furnishing 645 tons sulphate and aluminum to Bureau of Water Serv. and Water Supply, Dept. Pub. Serv., from Genl. Chemical Co., 112 West Adams St., Chicago, Ill., at $40 per ton.

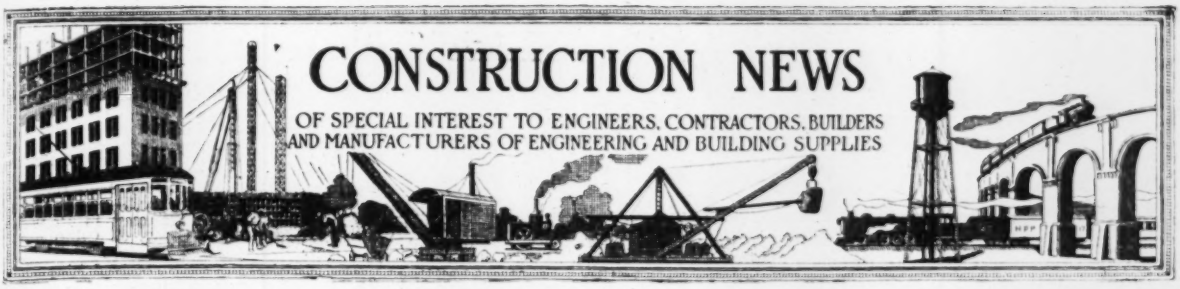
★**Sluice Gates—Cleveland, O.**—City let contract furnishing 23 hydraulic operated sluice gates for easterly and westerly sewage treatment plants, to Coffin Valve Co., Wade Bldg., $34,140. Noted June 17.

Water Pipe—Detroit, Mich.—City received bids June 15, furnishing (a) 1,000 ton 24 in. Class "C" c.i. water pipe, (b) 2,000 ton 16 in. Class "C" and (c) 4,000 ton 8 in. Class "B", from United States Cast Iron Pipe & Fdry Co., 122 South Michigan Ave., Chicago, (a) $75.85 per net ton, (b) $76.85, (c) $76.85; Glamorgan Pipe & Fdry Co., 209 South La Salle St., (a) $76.90, (b) $76.90, (c) $76.90; Camden Iron Wks., Line St. and Coopers Creek, (a) $76.80; Amer. Cast Iron Pipe Co., 38 South Dearborn St., Chicago, (a) $75.60, (b) 76.60, (c) $76.60 Lynchburg Fdry. Co., Peoples Natl. Bank Bldg., Lynchburg, Va., 3,000 ton divided proportionately in tonnage as to sizes, (a) $75.50, (b) $76.50, (c) $76.50; R. D. Wood & Co., 400 Chestnut St., Phila., 100 lengths 24 in. Class "B" weighing 2,800 lb., $74 per net ton, 100 lengths 16 in. Class "B," 1,500 lb., $74, 1,500 lengths 8 in. Class "B," 570 lb., $74, $6.60 per net ton freight. Noted June 10.

★**Foundation—St. Cloud, Minn.**—Stearns Co. let contract for excavation and building foundation for courthouse, to E. Hirt, St. Cloud. About $40,000. Noted March 4 under "Buildings."

★**Ornamental Lighting System—St. Paul, Minn.**—City let contract building ornamental lighting system on University Ave., to Electric Constr. Co., 174 6th St., Minneapolis. About $109,000. Noted Apr. 15.

★**Gravel, Sand and Stone—Cleburne, Tex.**—Johnson Co. let contracts stripping pit and loading 300,000 ton road gravel at Johnson Co. Pit, also unloading 350,000 ton gravel, sand and stone from cars into storage or vehicles, to O'Connor & Gilkison, 1st State Bank Bldg., Dallas, $60,000 and $87,500, respectively.



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
July 19	Sarnia, Ont.	July 15
July 19	Pleasant Ridge, Mich. Adv. July 8 and 15.	July 8
July 19	Wayne, Mich.	July 15
July 20	Stratford, Wis.	July 15
July 21	Newark, Del. Adv. July 15.	July 15
July 22	Tomohawk, Wis.	July 15
July 23	Akron, O.	June 24
July 30	Galveston, Tex. Adv. July 8 and 15.	July 8

SEWERS

July 21	Brooklyn, N. Y.	July 15
July 22	Humboldt, Tenn. Adv. July 15.	July 15
July 22	Milwaukee, Wis.	July 15
July 30	St. George, S. I., N. Y.	July 15
Aug. 2	Pontiac, Mich.	July 1

BRIDGES

July 18	Oglethorpe, Ga.	July 15
July 19	Spangler, Pa.	July 15
July 20	Milledgeville, Ga.	July 8
July 20	Danielsville, Ga.	July 15
July 21	Warrenton, Ga.	July 8
July 21	Frederica, Del. Adv. July 1 to 15.	July 1
July 21	Newark, O.	July 15
July 22	Camilla, Ga.	July 8
July 28	Vintondale, Pa.	July 15
July 30	Banff, Alta.	July 8
Aug. 2	Florence, Ariz. Adv. July 8 and 15.	July 15
Aug. 3	Morgan, Ga.	July 15
Aug. 4	Duboistown, Pa.	July 15
Aug. 20	Bristol, Conn.	July 15

STREETS AND ROADS

July 17	Berkeley Springs, W. Va.	July 8
July 19	Okeechobee, Fla. Adv. July 8 and 15.	July 1
July 19	Silver Lake, O.	July 1
July 19	St. Clairsville, O.	July 8
July 19	Toronto, O.	July 8
July 19	Cocoa, Fla.	July 8
July 19	Pittsburgh, Pa.	July 15
July 19	Royal Oak, Mich.	July 15
July 19	Blairsville, Ga.	July 15
July 20	Michigan	July 15
July 20	Monroe, Mich.	July 15
July 20	Moundsville, W. Va.	July 15
July 20	Storm Lake, Ia.	July 15
July 20	Mt. Pleasant, Ia.	July 15
July 20	St. Dorothea, Que.	July 15
July 20	Indiana	July 15
July 20	Moundsville, W. Va.	July 1
July 20	Berkeley Springs, W. Va.	July 8
July 20	North Carolina	July 8
July 20	New York, N. Y.	July 15
July 21	New York, N. Y.	July 15
July 21	Brooklyn, N. Y.	July 15
July 21	Chatham, Ont.	July 15
July 21	Springfield, Ill. Adv. July 8 and 15.	July 8
July 21	Ashton, Ill. Adv. July 15.	July 15
July 21	Dubuque, Ia.	July 15
July 22	Washington, D. C. Adv. July 15.	July 15
July 22	North Adams, Mass. Adv. July 15.	July 15
July 22	New Brunswick, N. J.	July 8
July 23	Garden City, Kan.	June 24
July 23	Missouri	July 8
July 23	Spencer, W. Va.	July 15
July 24	Ironton, O.	July 15
July 24	Crowley, La. Adv. July 8 and 15.	July 1
July 24	Indiana	July 15
July 25	Ohio	July 1
July 25	Swan River, Man.	July 15
July 26	Missouri	July 15
July 26	Indiana	July 15
July 27	Ft. Madison, Ia. Adv. July 15.	July 15
July 27	Michigan	July 15
July 27	St. Joseph, Mich.	July 15
July 28	Indiana	July 15
July 28	Griffin, Ga.	July 15
July 28	Missouri	July 15
July 28	Freehold, N. J.	July 8
July 28	Portland Me.	July 15
July 29	Bolivar Mo.	July 15
July 29	Lake City, Mich.	July 15
July 30	Missouri	July 15
July 30	Clearfield, Pa.	July 15
July 30	Davidson, Sask.	July 8
July 31	Columbus Ind.	July 15
Aug. 3	Grosse Pointe Park (Detroit P. O.), Mich.	July 15
Aug. 5	Ft. Myers, Fla.	July 8
Aug. 14	Opelousa, La. Adv. July 15.	July 15

EXCAVATION AND DREDGING

July 19	Cape Girardeau, Mo.	July 8
July 19	Des Moines, Ia.	July 15
July 20	Rensselaer, Ind.	July 8
July 20	Mason City, Ia.	July 8
July 20	Jonesboro Ark.	July 15
July 21	Clarinda Ia.	July 15
July 21	Marcy, N. Y.	July 8
July 27	Le Mars, Ia.	July 8
Aug. 4	Marengo, Ia.	July 8

INDUSTRIAL WORKS

July 19	Brooklyn, N. Y.	July 8
July 25	Fargo, N. D.	July 8
Aug. 1	Cambridge, Mass.	July 8
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

July 18	Youngstown, O.	July 15
July 19	Montreal, Que.	July 8
July 19	Marble, Minn.	July 8
July 19	Pembroke, Ont.	July 15
July 19	Emporia, Kan.	July 8
July 19	Ipswich, S. D.	July 8
July 19	Liberal, Kan.	July 15
July 20	Cleveland, O.	July 15
July 20	Roselle Park (Elizabeth P. O.), N. J.	July 1
July 20	Lake Park, Minn.	July 8
July 23	North Sydney N. S.	July 15
July 24	Wallingford, Conn.	July 15
July 25	Liberty Center, Ia.	June 24
July 26	Lankin, N. D.	July 8
July 26	Jeannette Pa.	July 15
July 27	Toms River, N. J. Adv. July 15.	July 15
July 29	Halifax, N. S.	July 15
July 30	Oakes, N. D.	July 8
July 31	Miniota, Man.	July 15
Aug. 1	Jamestown, N. D.	July 8
Aug. 1	Anderson, S. C.	July 15
Aug. 1	Baltimore, Md.	July 8
Aug. 2	Salina, Kan.	June 17
Aug. 2	Media, Pa.	July 8
Aug. 3	McCallsburg, Ia.	July 15
Aug. 9	Oberon, N. D.	July 8
Aug. 10	Chicago Ill.	July 15
Aug. 16	Sioux City, Ia.	June 17

FEDERAL GOVERNMENT WORK

July 19	Repairing Breakwater and Placing Rip Rap—Cleveland, O. Adv. July 1 to 15.	July 1
July 21	Pier—Spec. 4165—Guantanamo, Cuba Adv. July 8 and 15.	July 8
July 21	Sewers—Wash., D. C. Adv. July 8 and 15.	July 8
July 21	Railroad—Ogden, Utah	July 8
July 21	Gasoline Storage Shed—New York, N. Y.	July 15
July 22	Sewage Ejector — Del Rio, Tex.	July 15
July 22	Grading—Wash., D. C. Adv. July 15.	July 15
July 23	Remodeling Post Office — Omaha, Neb.	July 15
July 24	Dredging — New York, N. Y.	June 24
July 27	Surface Drainage System, etc.—Galveston, Tex.	July 8
July 28	Remodeling Post Office and Customhouse—Fall River, Mass.	July 8
July 28	Electric Traveling Cranes—Spec. 4239—Wash., D. C.	July 15
July 28	Extending Workroom—Chattanooga, Tenn.	July 8
July 29	Remodeling Customhouse and Post Office—Astoria, Ore.	July 8
July 30	Widening and Deepening — New Orleans, La.	July 1
July 30	Remodeling Post Office—Battle Creek, Mich.	July 8
July 30	Superstructure — Wash., D. C. Adv. July 8 and 15.	July 8
Aug. 4	Remodeling Post Office — Augusta, Me.	July 15
Aug. 4	Underground Electric Distributing System — Spec. 4240—Hampton Roads, Va. Adv. July 15.	July 15
Aug. 11	Temporary Storehouse — Spec. 4229—Pearl Harbor, H. T.	July 8
Aug. 16	Diversion Dam—Florence, Ariz. Adv. July 15.	July 15
Aug. 24	Canal—Caldwell, Idaho	July 15

MISCELLANEOUS

July 20	Terminal Freighthouse — New York, N. Y. Adv. June 24 to July 15.	June 24
July 20	Conduits, etc. — Detroit, Mich.	July 8
July 20	Pumps—Summit, N. J. Adv. July 15.	July 15
July 20	Breakwater — Cape Bald, N. B.	July 8
July 23	Steam Pump — Trenton, N. J. Adv. July 8 and 15.	July 8
July 25	Incinerator—Chatham, Ont.	July 15
July 29	Dam—Inlet, N. Y. Adv. July 8 and 15.	July 8
Aug. 7	Pier and Transit Sheds — Vancouver, B. C.	July 1

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Cambridge — City receives bids about Aug. 2, building reservoir. About $100,000. Johnson & Benham, 150 Nassau St., New York City, engrs.

Pa., Ford City—Douglass & McKnight, engrs., Columbia Bank Bldg., Pittsburgh, rejected bids June 29, building reservoir for city. Work will be readvertised. Noted June 24.

Pa., Pittsburgh — City Council passed ordinance to lay water mains in various streets. About $30,000. E. J. Martin, clk.

Gas Mains — Charlottesville, Va. — See "Streets and Roads."

Tenn., Nashville—City plans to strengthen and repair reservoir. About $15,000. W. W. Southgate, city engr.

O., Dayton—City authorized issue of $200,000 bonds to build 10,000,000 gal. reservoir on west side and 1,200 ft. 4-10 in. c.i. pipe. Work involves 4,700 cu.yd. rein.-con. and 10,000 cu.yd. earth excav. G. Baker, city engr.

O., Dayton — Comrs. Montgomery Co. plan to lay 30,000 ft. 4-8 in. c.i. water mains in Mt. Auburn Dist., involving 12,000 cu.yd. earth excav. About $200,000. K. B. Allen, 606 Union Bank Bldg., engr.

O., Willoughby—Village election Aug. 10 to vote on $150,000 bonds to build reservoir and waterworks system. M. Knowles, 716 Hippodrome Bldg., Cleveland, engr. Noted April 1.

Waterworks (Continued)

Ind., Ft. Wayne—See "Industrial Works."

Mich., St. Clair—City having plans prepared for furnishing and installing 300 hp. engine, 200 kva. direct connected generator, water meter, piping, etc., also 6 and 10 in. watermains, in Orchard and 9th Sts., Town Line, Riverside and Clinton Aves. About $57,755. G. C. Champe, Toledo, O., engr.

Mo., Moberly—City plans to build pumping and filtration plants and reservoir. About $250,000. Fuller & Beard, Chemical Bldg., St. Louis, engrs.

N. B., Frederickton—Town soon receives bids extending water works system, involving 5,600 ft. 6-10 in. pipe. About $25,000. E. McKnight, town engr.

N. B., St. Andrews—Town Council opens bids about Aug. 1, building 4 mi. water mains from here to Chamcook Lake, involving 20,000 ft. 24 in. pipe, 100 cu.yd. rein.-con., 21,000 cu.yd. earth and 7,000 cu.yd. rock excav. About $110,000. D. W. Maxwell, St. Stephen, engr.

N. B., St. John—City plans to build extension to water works system. About $547,000. E. Hare, city engr.

Ont., Chatham—City having plans prepared by E. A. James Co., Ltd., engrs., 36 Toronto St., Toronto, for altering brick pumphouse and installing new mechanical filters, also electrical driven centrifugal pumps will probably be installed. About $50,000.

Ont., Scarboro—Township plans to build branch water main and house services in connection with new waterworks system, involving ½ and ¾ in. w.i. pipe, stop cocks, valve boxes, etc. About $200,000. E. A. James Co., Ltd., 36 Toronto St., Toronto, engrs.

Ont., Wingham—Town voted $25,000 to extend water works system.

BIDS DESIRED

Del., Newark—Until July 21, by Town Council, improving water works system, to include concrete foundations for 40 ft. diamete steel stand pipe, 6,300 ft. 10 in. c.i. pipe line and concrete receiving basin. E. B. Frazer, pres.; advertised in this issue.

Mich., Wayne—Until July 19, by F. L. Forman, village clk., furnishing labor and material building filtration plant of 1,000,000 gal. daily capacity, coagulating basin, intake, drain pipes and motor driven centrifugal pumps of same capacity. Pipe lines, and plant and equipment to be let under separate contracts.

Wis., Stratford—Until July 20, by F. J. Curtin, village clk., building 18 x 30 ft. brick pumping station and well-reservoir, 46 ft deep, 20 ft. in diameter, also furnishing 250 gal. power pump and 20 hp. gasoline-kerosene engine. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr. Noted Jan. 15.

Wis., Tomahawk—Until July 22, by J. Bell, city clk., furnishing and building 60,000 gal. steel tank on 100 ft. tower. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr. Noted Jan. 15.

Ont., Hawkesbury—Town receiving bids building waterworks system. About $19,000.

Ont., Sarnia—Until July 19, by F. W. Thorold Co., Ltd., engr., 167 Avenue Rd., Toronto, for Contr. A, to include supplying of 12,000 ft. 24 in. and 700 ft. 18 in. c.i. pipe and specials; Contr. B, 18 and 24 in. gate valves; Contr. C, special c.i. flanges; Contr. E, laying 7,100 ft. 24 in. pipe; Contr. F, 4,950 ft. 24 in. and 700 ft. 18 in. pipe; Contr. G, supplying and erecting two 300 hp. induction motors; Contr. H, supplying and erecting 5,000 ton concrete coal plant; Contr. J, building new roof on Point Edward pumphouse. About $100,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract laying 8-20 in. water mains in North, Commercial and Portland Sts., to C. and R. Constr. Co., $111,859. Noted July 1.

★**N. J., Bordentown**—F. H. Bent, state archt. 142 West State St., Trenton, let contract building water supply system for Industrial School here, to G. Feifer, 209 Market St., Camden, $22,500.

★**Tenn., Nashville**—City let contract building two 20,000,000 gal. high service pumps and two 20,000,000 gal. low service pumps, to Worthington Pump Co., $87,750 and $93,200 respectively. Noted June 3 under "Miscellaneous."

Mich., Dearborn—City received bids July 7, furnishing and laying 7,629 ft. 6-18 in. c.i. pipe, from T. C. Brooks & Son, Jackson, $34,113; J. A. McDace, 920 Fairview Ave., Detroit, $34,836; J. Palmer, Dearborn, $37,439. Noted June 24.

Mich., Pontiac—City received bids laying 5,870 ft. 48 in. lock bar steel pipe for filtration plant, from W. E. Hayes, East Jefferson and Bellevue Aves., Detroit, $53,912; Bartling & Holmes, Alma, $77,283; Lennane & McIlvenna, 1205 Book Bldg., Detroit, $90,300. Noted July 1 under "Miscellaneous."

★**Ill., Rockford**—City let contract building 197 x 215 ft. concrete reservoir, on Stanley and Cedar Sts., to Security Building Co., 18th St., $122,732.

★**Okla., Miami**—City let contract building 1,000,000 gal. reservoir and extensions to waterworks system, to A. R. Young Constr. Co., Little Rock, Ark. About $35,000 and $133,000 respectively. Noted April 15.

Sewers

PROPOSED WORK

Mass., Northbridge—Bd. Sewer Comr. plans to build sewerage system and pumping station. About $142,000. C. W. Lasell, chn. McClintock & Woodfall, 15 Court Sq., Boston, engrs.

Va., Charlottesville—See "Streets and Roads."

W. Va., Wheeling—City plans to install complete sewerage systems in Pleasanton, Crator and Park View. About $100,000. H. G. Conrad, city engr.

Tenn., Humboldt—City will sell $70,000 bonds July 22, to build sewers in various streets. R. H. McNeely, mayor; advertised in this issue.

O., Lima—City having preliminary plans prepared by Fuller & McClintock, engrs., 170 Bway., New York City, building sewage disposal plant, etc. About $1,000,000.

Ind., Ft. Wayne—See "Industrial Works".

Mich., Detroit—City plans to build Lateral Sewer 3,295 on Cardoni, Hawthorne, Swift and Nevada Sts., involving 2,410 ft. 12-42 in. vitr. pipe, etc.; 3,296, Cardoni, Russel, Swift and Nevada Sts., 1,665 ft. 12-24 in. pipe; 3,297, Russell, Hull and Nevada Sts. and Six Mile Rd., 2,384 ft. 12-24 in. pipe; 3,298, Hull, Riopelle and Nevada Sts. and Six Mile Rd., 5,348 ft. 12-33 in. pipe; 3,299, Riopelle, Marx and Nevada Sts. and Six Mile Rd., 5,397 ft. 12-33 in. pipe; 3,301, Meadowbrook and Marsh Sts. Detroit River and alley east of Montclair St., 1,526 ft. 12-15 in. pipe; 3,302, Vinton, Raymond, Georgia and Edgewood Sts., 995 ft. 12-15 in. pipe; 3,303, 52nd, 51st, Conrad Sts. and point 109 ft. north of Conrad St., 109 ft. 12 in. pipe; 3,304, Fisher, Crane, Georgia and Marcus Sts., 1,080 ft. 12-15 in. pipe; 3,305, Mather, Central, Radcliffe and Vernor Sts., 670 ft. 12 in. pipe. C. W. Hubbell, city engr.

Minn., Freeport—City plans to build 3 mi. sanitary sewers and install Imhoff tanks and sludge beds. About $30,000. Bradley Eng. Co., St. Cloud, engrs.

Okla., Oklahoma—City having preliminary plans prepared for sewage disposal plant, etc. About $1,000,000. Fuller & McClintock, 170 Bway., New York City, engrs.

BIDS DESIRED

N. Y., Brooklyn—Until July 21, by E. Riegelmann, boro. pres., furnishing labor and material building sewers in Ocean Parkway, East Side, between Ave. I and Long Island R.R., Ave. I from Ocean Parkway to end of existing sewer between Ocean Parkway and East 7th St., East 7th St. from sewer summit to point about 325 ft. north of Ave. N to Ave. M., repairing pipe sewer in Greene Ave. at Washington Ave.

N. Y., S. I., St. George—Until July 30 by C. D. Van Name, pres. Richmond Boro., building temporary sanitary sewers in Seaside Blvd. from Sea Ave. to point 3,000 ft. west of Sand Lane and from this point to extension of Cromwell Ave., Cromwell Ave. and southerly extension from existing sewer about 2,120 ft. north of Southfield Beach R.R. to point about 135 ft. south of railroad, outlet sewer in extension of Cromwell Ave. from point 185 ft. north of Southfield Beach R.R. into New York Bay to pierhead line.

Tenn., Humboldt—Until July 22, by city, furnishing and laying 9 mi. 6-15 in. vitr. sewer pipe with necessary manholes. J. H. Weatherford, Porter Bldg., Memphis, consult. engr.; advertised in this issue.

Wis., Milwaukee—Until July 22, by Sewerage Com., building 2 syphons under Milwaukee River, 860 ft. 18 in. c.i. pipe, with 1 valve chamber at Bradford Ave. and 595 ft. 30 in c.i. pipe with 2 valve chambers, at Auer Ave. About $50,000. T. C. Hatton, city engr. Noted July 1.

Que., Montreal—City receiving bids building underground conduits, cost $20,000; Cote St. Antoine sewerage system, $1,035, Colborne, $21,490, and Harold $14,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract building sewers in Market and Babcock Sts., to A. Cefalo, $23,333 and $10,218 respectively; Bridge and North Anderson Sts., to W. Barrett, $8,263. Noted July 8.

★**N. J., Newark**—City let contract building main sewer and branches in Roanoke Ave., to Harrison & Craig, 31 Clinton St., $117,687.

Pa., Pittsburgh—City received bids June 21, building sewers in Uptegraff St., involving 8,691 ft. 8-20 in. terra cotta pipe, etc. from J. E. Born, Union Arcade, $25,165; M. Ott & Co., 416 Warrington Ave., $24,239; McDonough & O'Toole, Pittsburgh, $36,736.

Mich., Detroit—City received bids July 6, furnishing labor and material building sewer in (a) Springle Ave., (b) Swift Ave., (c) Puritan Ave., (d) Oakland Ave., (e) John R. St., from Jeynes & Affled, 1208 Ford Bldg., (a) $59,940, (c) $67,700; N. Mancini, 580 Concord Ave., (a) $57,750; Walker & Teetart Co., 919 Majestic Bldg., (a) $61,500; J. Porath, 23 McGraw Bldg., (b) $66,550, (c) $65,912, (d) $54,840, (e) $57,957; W. Blanck & Co., 827 Ford Bldg., (b) $73,125, (e) $57,145; E. S. McReynolds, 396 Harper Ave., (b) $74,388; Lennane & McIlvenna, 1205 Book Bldg., (d) $80,395, (e) $62,205. Noted July 1.

★**Mich., Detroit**—City let contract furnishing labor and material building brick, concrete, vitr. or concrete segmental block sewer in Linwood Ave., Sect. 4, involving 2,587 ft. 2 ft. 9 in.-5 ft. 3 in. cylinder, to Jeynes & Affield, 1208 Ford Bldg., $68,700; Alter Rd. Pub. Sewer (uncompleted portion), 1,755 ft. 5 ft. 6 in. cylinder, Laterals 3,114 and 3,173, to W. Blanck & Co., 827 Ford Bldg., $49,624, $3,996 and $26,350 respectively. Noted July 1.

Wis., Waterloo—Village received bids July 1, building storm sewers in various streets, from Gray-Robinson Constr. Co., Manitowoc, $62,308.

★**Ia., Ft. Madison**—City let contract furnishing and laying 26 mi. 8-24 in. sanitary sewer pipe, also building pumping stations, etc., to Natl. Constr. Co., Davenport, $487,248. Noted May 13.

★**N. D., Grafton**—City let contract building sewers and watermains in 25 blocks, to J. O'Connor Co., Fargo. About $40,000.

Bridges

PROPOSED WORK

Me., Orono—Town had plans prepared for bridge over Penobscot River. About $75,000. A. Sprague, Orono, engr.

Mass., Indian Orchard—City of Springfield and Town of Ludlow plan to build concrete and steel bridge over Chicopee River between here and Ludlow. About $30,000. E. W. Wiggin, 113 Church St., New Haven, Conn., engr.

Minn., Grand Rapids—Itasca Co. rejected bids May 3, building Bridge 3,303, over Prairie River. Bonds not sold; project postponed until November. H. A. LeSueur, Grand Rapids, engr. Noted April 8.

Neb., Omaha—City, Union Pacific R.R., Chicago, Burlington & Quincy RR., Chicago & Northwestern Ry., and Missouri Pacific RR. plan to build 4,200 ft. viaduct, 40 ft. wide, over tracks from 32nd and Grover Sts. to 33rd and I Sts. About $1,500,000. J. C. Bruce, city engr.

Mo., St. Louis—City and St. Louis Terminal R.R. plan to build rein.-con. bridge over St. Louis Terminal R.R. tracks at Bircher Ave. and Penrose Park, cost $259,400; Kingshighway and Penrose Park, $266,000, also concrete viaduct on Goodfellow Ave., $77,350. L. A. Bowen, City Hall, engr. Noted May 27 under "Miscellaneous."

Mo., St. Louis—City and Wabash R.R., Ry. Exch. Bldg., plan to build rein.-con. viaduct over tracks, on Delmar Ave. About $562,786. L. R. Bowen, City Hall, engr. Noted May 27.

BIDS DESIRED

Conn. Bristol—Until Aug. 20, by C. W. Buell, city engr., 175 Main St., building 50 ft. rein.-con. bridge, 50 ft. wide, on Boulevard, involving 200 cu.yd. concrete, etc. Noted June 3.

Pa., Duboistown—Until Aug. 4, by L. O. Bower, clk. Bd. Comrs. Lycoming Co. (Williamsport), building 1,500 ft. rein.-con. bridge (alternative, steel riveted truss bridge) 25 ft. wide, over Susquehanna River between High St., here, and Arch St., Newberry. If concrete is used, bridge will have 13 open spandrel arches of 98 ft. clear span; if steel, seven 200 ft. spans on rein.-con. piers. Bonds for $500,000 voted for project. M. C. Krause, co. engr.

Bridges (Continued)

Pa., Spangler—Until July 19, by H. T. Jones, controller Cambria Co. (Ebensburg), building 50 ft. rein.-con. bridge, 21 ft. wide, over Susquehanna River, here. About $25,000. H. F. Dorr, Trust Bldg., Ebensburg, engr.

Pa., Vintondale—Until July 28, by H. T. Jones, controller Cambria Co. (Ebensburg), building 48 ft. rein.-con. arch highway bridge, 24 ft. wide, over Blacklick Creek, here. About $30,000. H. F. Dorr, Trust Bldg., Ebenburg, engr.

Ga., Danielsville—Unti. July 20, by Bd. Comrs. Rds. and Revenues, Madison Co., building 4 bridges on Danielsville-Athens Rd., Bridge 1 over South Fork Broad River, one 60 ft. steel span with 224 lin.ft. rein.-con. approaches, involving 277.6 cu.yd. Class "A" and 73.2 cu.yd. Class "B" concrete, 29,487 lb. reinforcing and 17,600 lb. structural steel; Bridge 2 — Double Branches, two 28 ft. concrete girder spans, 54.5 cu.yd. Class "A" and 48.6 cu.yd. Class "B" concrete and 14,532 lb. reinforcing steel; Bridge 3 over Brush Creek, eight 16 ft. concrete slab spans, 149.2 cu.yd. Class "A" concrete and 14,925 lb. reinforcing steel; Bridge 4 over Biggers Creek, three 28 ft. concrete girder spans, 104.7 cu.yd. Class "A" concrete and 21,138 lb. reinforcing steel.

Ga., Morgan—Until Aug. 3, by Bd. Comrs. Roads and Revenues, Calhoun Co., building three 60 ft., one 40 ft. and one 160 ft. rein.-con. bridges, and one 10 ft. span rein.-con. slab top culvert, over Pachitla Creek on Morgan-Edison Rd., Route 27, Federal Aid Project 171, involving 501.55 cu.yd. Class "A," 262.40 cu.yd. Class "B" and 22.04 cu. yd. Class "C" concrete, 59,924 lb. reinforcing steel, 1,130 lin.ft. 14 x 14 in. reinforcing concrete pile driven, 340 lin.ft. wood piling driven, 675.50 cu.yd. Kentucky rock asphalt surfacing and 250 cu.yd. wet and dry excav.

O., Newark—Until July 21, by Comrs. Licking Co. building superstructure for Bridge 6, on Road 153, Lima Twp. to have two 35 ft. rein. con. deck grinders, 16 ft. clear roadway, involving 71 cu.yd. 1:2:4 concrete, 13,182 lb. reinforcing steel and 153 lin.ft. type G railing; substructure—removing existing structure and building 2 new abutments and pier, 40.9 cu.yd. 1:3:6 and 89.3 cu.yd. 1:2:4 concrete, 2,416 lb. reinforcing steel, 400 cu.yd. dry and 180 cu.yd. wet excav. F. S. Wilson, aud.

Ariz., Florence—Until Aug. 2, by Pinal Co. Highway Comn., building two 140 ft. clear span rein.-con. bridges, on Ray-Kelvin Highway, involving 1,300 cu.yd. concrete and 78,000 lb. reinforcing steel. E. G. Dentzer, secy.; advertised in this issue. Noted July 1.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract building bridge on Ashland St., to Boston Bridge Wks., 47 Winter St., $54,000.

★**Rhode Island** — State Bd. Pub. Rds., State House, Providence, let contract building Bridge 146, known as Centerdale Bridge, North Providence and Johnston, also Bridge 145, known as Centerdale Sluiceway, North Providence, to Bowerman Bros., 630 Grosvenor Bldg., Providence, $36,226 and $12,750 respectively; Bridge 20, known as Wakefield Bridge, South Kingstown, to G. F. Austin, East Greenwich, $14,871. Noted June 24.

★**Conn., Meriden** — International Silver Co., 48 State St., let contract building 300 ft. rein.-con. coal trestle and bunker, to J. H. Grozier Co., 721 Main St., Hartford; cost plus percentage basis.

★**Pa., Williamsport**—Lycoming Co. let contracts building Shoemaker and Upper Hughesville Bridges, to O'Dell Bros. & Co., Hughesville, $39,275 and $33,440 respectively. Noted June 24.

★**W. Va., Madison**—Boone Co. let contract building superstructure for bridge over Coal River, near Mordue, involving 60.5 cu.yd. concrete, 576 cu.yd. Ashlar masonry and 4,760 lb. steel, to Stand Eng. Co., Toledo, O., $13,387; substructure for above, involving 576 cu.yd. concrete, 230 lb. steel for above, and 311 cu.yd. earth approach and fill, to Shaid Contg. Co., Elkins, $14,953.

★**Mich., Detroit**—City let contract furnishing and erecting steel for 4 span viaduct over Michigan Central R.R. tracks, on Vermont St., to Wisconsin Bridge & Iron Co., 1362 Penobscot Bldg., $27,850. Concrete foundation work to be done by Michigan Central R.R. Noted June 3.

★**Mich., St. Clair**—City, township and China Twp. let contract building three span rein.-con. highway bridge, 200 ft. long, 20 ft. wide, over Pine River, near here, to R. F. Hanneman, 454 Ferdinand Ave., Detroit. About $32,000. Noted May 13.

★**Mo., Kansas City** — Missouri Pacific R.R., Ry. Exch. Bldg., St. Louis, let contract repairing steel work on 4 truss spans of Kaw River Bridge, 28 ft. wide, to Frankman Bros. Bridge & Constr. Co., 911 Metropolitan Life Bldg., Minneapolis, Minn. About $25,000.

★**Mo., St. Louis**—City let contract building 500 ft. unloading bridge for municipal wharf equipped with electric hoist and carriage for transferring miscellaneous freight, to Lakeside Steel Co., North Milwaukee, Wis. About $50,000.

Tex., Cooper—Delta Co. received only bid building rein.-con. and steel bridges on Highway 39, from Austin Bros. Bridge Co., 1815 Coombs St., Dallas, $49,776; including 10% for engineering and contingencies. Work involves 175 cu.yd. dry and 130 cu-yd. wet excav., 468.5 cu.yd. Class "A" and 130.7 cu.yd. Class "B" concrete, 47,459 lb. reinforcing and 156,953 lb. structural steel.

Tex., Paris — Lamar Co. received bids building (1) concrete and steel bridges on Highway 5, involving 68 cu.yd. structural excav., 302.6 cu.yd. Class "A" and 364.4 cu.yd. Class "B" concrete, 68,400 lb. structural and 45,765 lb. reinforcing steel, (2) rein.-con. and steel bridges on Highway 19, 34 cu.yd. structural excav., 79.1 cu.yd. Class "A" and 390.7 cu.yd. Class "B" concrete, 66,800 lb. structural and 17,958 lb. reinforcing steel, from Austin Bros. Bridge Co., 1815 Coombs St., Dallas, (1) $32,630, (2) $23,543; Midland Bridge Co., Shap Channel, Fidelity St., Houston, (1) $38,139, (2) $27,961.

★**Ontario** — Canadian Natl. Ry., Royal Bank Bldg., Toronto, let contract building 16 concrete culverts and bridges, to Dominion Constr. Co., 14 Wellington St., E., Toronto. About $150,000. Noted May 13.

Streets and Roads

PROPOSED WORK

New York—F. S. Greene, state highway comr., Capitol, Albany, received no bids July 2, improving roads in Dutchess, Albany, Rensselaer and Oneida Counties. Noted June 24.

Pa., Ebensburg — Comrs. Cambria Co. plan to build 12 mi. Sproul Rd., 18-21 ft. wide, vitr. brick and concrete. About $460,000.

Pa., Pittsburgh—City Council passed ordinance to grade to width of 40 ft., also pave and curb Fordham St. from Pioneer Ave. to point 330 ft. southeast of Queensboro Ave. About $60,000. E. J. Martin, clk.

Pa., Scranton—City passed ordinance to grade, pave and curb Penn Ave. from New York to Sunset Sts., North 9th Ave. from West Lackawanna Ave. to West Linden St. and Birch St. from Cedar to South Washington Aves. Cost $71,495, $12,032 and $27,898 respectively. W. P. Huester, clk.

Va., Charlottesville—City voted $953,000 bonds to pave streets, also build sewers, water and gas mains.

W. Va., Clarksburg — Harrison Co. defeated $4,000,000 bond issue for improving highways. Noted June 3.

W. Va., Welch—Comrs. McDowell Co. soon receive bids paving 2½ mi. Welch-Davy Rd., 16 ft. wide, Kentucky rock asphalt. About $50,000. W. J. McClaren, co. engr.

W. Va., Wheeling — C. O. Ephlin, city mgr., soon receives bids paving 1,500 ft. 4th, 5th, 6th, 7th and Centre Sts., 30 ft. wide, vitr. brick. About $30,000. H. A. Conrad, city engr.

Tenn., Murfreesboro—Rutherford Co. sold $200,000 bonds to build state and federal highways.

Mich., Detroit—City plans to grade, shape and pave with sheet asphalt on 8 in. concrete foundation, Berea or Medina curbstone, Inglis Ave. from Ferndale to Woodmere Aves., 26 ft. wide, cost $49,970; grade and pave with 1 course concrete and 2 x 6 in. retaining plank, alley between Elmwood, Ellery, Benson and Heidelberg Sts., 18 ft. wide, $5,840, alley between Maxwell, Gratiot, Seminole and Medbury Sts., 18 ft. wide, $7,790, alley between Belvidere, McClellan, Mack and Sylvster Aves., 18 ft. wide, $6,600, and alley between Goodwin, Cameron, Owen and Westminster Aves., 15 ft. wide, $5,340. C. W. Hubbell city engr.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received no bids June 22, paving North and South Franklin Sts. from Lake St. to Jackson Blvd., involving 2,000 cu.yd. grading, 10,500 sq.yd. creosoted wood block paving on 8 in. concrete, 20 catch basins. About $57,000.

Wis., Milwaukee—Bd. Pub. Wks. received no bids June 28, paving and building cement walks on east side 27th Ave. from Lincoln to Burnham Aves., involving 2,671 lin.ft. combined curb and gutter, 1,620 sq.ft. cement walks, etc. Noted June 24.

Wis., North Milwaukee — City rejected bids received June 15, grading and paving streets. About $155,000. Work will be readvertised. H. Webster, city engr. Noted June 10.

Minn., St. Paul—Ramsey Co. plans to pave 1 mi. from Kohler Rd. to Goose Lake and 10 mi. from city limits to White Bear, St. Paul-Duluth Highway, also 3½ mi. Rice St. Rd. from north city limits to Lake Johanna, all 24 ft. wide, concrete or asphaltic concrete surface on concrete base. About $58,000, $250,000 and $150,000 respectively. R. R. Godfrey, Court House, engr.

South Dakota — State Highway Comn., Pierre, receives bids in about 2 months, grading, graveling and draining 7 mi. Sioux Falls-Elk Point-Sioux City Rd., 24 ft. wide, including one 60 ft. span steel truss bridge. Work involves 29,400 cu.yd. excav., 13,000 cu.yd. gravel surfacing, 6,000 lb. reinforcing steel, 900 lin.ft. concrete or corrugated culverts and 80 cu.yd. concrete for culverts. About $69,400. F. S. Peck, Pierre, engr.

Missouri—State Highway Dept., Jefferson City, plans to build 25.5 mi. Springfield-Carthage Rd. (Miller Special Rd. Dist.), 24 ft. wide, Lawrence Co., involving 36,546 cu.yd. earth excav., 39 culverts, extensions to 48 culverts, two 20 ft., four 16 ft., and two 3-18 ft. span rein.-con. bridges; 9 mi. Springfield-Hollister Rd. (Spokane Special Rd. Dist.), 24 ft. wide, Christian Co., 22,500 cu.yd. earth excav., 23,311 sq.yd. 5 in. gravel surfacing and 42 culverts; 6.5 mi. Springfield-Hollister Rd. (Selmore-Highlandville Special Rd. Dist.), 24 ft. wide, Christian Co., 17,788 cu.yd. earth excav., 34,320 sq.yd. 8 in. chat surfacing, 20 culverts and extensions to 1 culvert; 5.5 mi. Monett-Eureka Springs Rd. (Washburn Special Rd. Dist.), 24 ft. wide, Barry Co., 1,000 cu.yd. rock and 15,355 cu.yd. earth excav., 29,040 sq.yd. 5 in. gravel surfacing and 21 culverts; 4.5 mi. Monett-Eureka Springs Rd. (Butterfield Special Rd. Dist.), 24 ft. wide, Barry Co., 12,485 cu.yd. earth excav., 13,000 sq.yd. clay bound macadam and 10,760 sq.yd. chat surfacing, both 10 in. deep and 9 ft. wide, and 14 culverts; 17.4 mi. Oklahoma-St. Louis Rd. (Granby Special Rd. Dist.), 24 ft. wide, Newton Co., 84,000 cu.yd. earth excav., 23,845 sq.yd. 5 in. gravel surfacing, one 30 ft. rein.-con. bridge and 1 rein.-con. arch bridge to have four 50 ft. spans, also 53 culverts; 8.3 mi. Osage Valley Highway (Humansville Special Rd. Dist.), 24 ft. wide, Polk Co., 1,000 cu.yd. rock and 25,000 cu.yd. earth excav., 26,400 sq.yd. 5 in. and 17,324 sq.yd. 10 in. gravel surfacing, 4 culverts and extensions to 16 culverts; 3.68 mi. Joplin-Siloam Springs Rd. (Goodman Special Rd. Dist.), 24 ft. wide, McDonald Co., 13,000 cu.yd. earth excav., 19,430 sq.yd. 5 in. gravel surfacing and 15 culverts; 10.5 mi. Salem-Licking Rd., 24 ft. wide, Dent Co., 58,000 cu.yd. earth excav., twenty-seven 12-48 in. corrugated pipe culverts, 9 rein.-con. culverts, one 48 ft. and one 80 ft. span bridges; 7.95 mi. Joplin-Springfield Rd. (Sarcoxie Special Rd. Dist.), 24 ft. wide, Jasper Co., 15,172 cu.yd. earth excav., 74,619 sq.yd. gravel surfacing, 8 culverts and extensions to 5 culverts.

Mo., Jefferson City — City received no bids June 22 resurfacing Havana St. from Main to McCarty Sts., Madison St. from Miller to Dunklin Sts., and Lafayette St. from Miller to Atchison Sts., with bituminous macadam. Noted June 17.

Mo., Monticello — Comrs. Lewis Co. received no bids June 28 building 7.94 mi. Red Ball Route Highway (La Grange Special Rd. Dist.), 24 ft. wide, Federal Aid Project 39, also rein.-con. slab superstructure for Mitchell Bridge. About $87,335. Noted June 24.

Mo., St. Louis—City plans to pave 3,600 ft. Hodimont Ave. from Etzel to Easton Aves., cost $90,000; 1,500 ft. 12th St. from Choteau to Park Aves., 56 ft. wide, involving 9,000 sq.yd. concrete, $15,000; resurface 500 ft. Marcus Ave. from Labadie Ave. to Ashland Pl., $6,000; 5,000 ft. Lafayette Ave. from Jefferson to Grand Aves., $60,000; 5,000 ft. Lawton Ave. from Jefferson to Grand Aves., $60,000; 4,000 ft. Skinker Rd. from Delmar to Forsythe Blvds., $55,000; 3,500 ft. Union Blvd. from Easton to St. Louis Aves., $55,000; 1,500 ft. Maple Ave. from Hamilton to Hodimont Aves., $19,000, 1,500 ft. 7th St. from Park to Choteau Aves., $21,000. W. W. Horner, City Hall, engr.

Tex., Gilmer—Upshur Co. rejected bids received June 17, gravel surfacing and draining 9.015 mi. Highway 42 and 25.877 mi. Highway 1. About $78,363 and $228,636 respectively. D. Walker, co judge. Wilder & O'Neal, Mt. Pleasant, engrs. Noted June 3 and 10.

Streets and Roads (Continued)

Tex., Sherman—Whitewright Dist., Grayson Co., voted $50,000 bonds to build various roads. J. C. Field, Denison, co. engr.

Tex., Waco—Mart Dist., McLennan Co., voted $365,000 bonds to improve various roads. M. Hannah, co. engr.

Tex., Greenville—Hunt Co. having plans prepared grading, surfacing and building rein.-con. and steel bridges and culverts on 3.46 mi. Highway 39 from Commerce northeast to Delta Co. line, 16 ft. wide, involving 3 acres clearing and grubbing, 19,480 cu.yd. unclassified earth excav., 8,877 cu.yd. crushed stone, 79.2 cu.yd. Class "A" and 135 cu.yd. Class "B" concrete, 31,916 gal. bituminous material, 8,800 sq.yd. concrete pavement, 10,389 lb. reinforcing and 51,744 lb. structural steel. About $120,237. A. D. Duck, Greenville, co engr.

Utah, Lehi—City plans to curb, gutter and grade Main St., 60 ft. wide, 7 in. plain concrete. About $35,000. Huddleston & Fiero, Kearns Bldg., Salt Lake City, engrs.

Utah, Provo—City plans to pave .76 mi. 5th and West Sts. to Denver and Rio Grande R.R. crossing, 20 ft. wide, 7 in. plain concrete. About $32,500. C. A. Swan, city engr.

Wash., Seattle—King Co. soon lets contract grading and graveling 2 mi. Three Tree Point Rd., involving 5½ acres grubbing, 3,000 cu.yd. gravel and 38,000 cu.yd. earth excav.

Wash., Yakima—City soon receives bids paving 60 blocks, in main business section, concrete. About $51,655. C. A. Wilson, Yakima, engr.

Cal., Stockton—E. Graham, clk. San Joaquin Co., receives bids about Aug. 15, grading and paving 3½ mi. Hammer Lane, 2 mi. Waterloo Rd., and 4½ mi. Copperolis Rd., 2 in. rock top oil macadam surface on 5 in. gravel base. About $10,000 per mile. Noted June 17.

Ont., Renfrew—Town plans to pave 1 mi. Lisgar St. and McDougal Rd., also 1¾ mi. Price and Plaunt Sts., tarvia treatment, penetration method. I. R. Stewart, Renfrew, engr.

BIDS DESIRED

Me., Portland—Until July 28, by E. M. Hunt, comr. Pub. Wks., building 1,956 sq. yd. split, redressed, granite block pavement on Congress St. from India St. to east line of Washington Ave.

Mass., North Adams—Until July 22, by J. L. Temple, comr. Pub. Wks., improving 5,000 sq.yd. concrete roadway and 1,700 lin.ft. concrete combination curb and sidewalk on Beaver St.; advertised in this issue.

N. Y., Brooklyn—Until July 21, by E. Riegelmann, boro. pres., regulating and repaving with permanent asphalt on 6 in. concrete foundation roadway of Atlantic Ave. from Nostrand Ave. to Eastern Parkway extension, 19th Ave. from 82nd to 84th Sts., resurfacing with bituminous macadam 16. ft. wide, roadway of King's Highway from Flatbush Ave. to East 98th St.

N. Y., New York—Until July 20, by H. Bruckner, pres. Bronx Boro., setting curb and repaving with granite block or concrete foundation roadway of East 153rd St. from Park to Morris Aves., regulating, grading, setting curb, laying sidewalks, crosswalks, etc., Harlem River Terrace from Fordham Rd. to end of existing retaining wall on westerly side of street, paving with sheet asphalt on cement concrete foundation roadway of Whitlock Ave. from Leggett to Longwood Aves., paving with bituminous concrete on cement concrete foundation roadway of Garfield St. from Morris Park Ave. to property of New York, New Haven & Hartford R.R., building sewer in Fox St. between Leggett Ave. and East 156th St.

N. Y., New York—Until July 21, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with 3 in. asphaltic concrete, 3 in. asphalt block or sheet asphalt on concrete foundation, roadway of West 18th St. from 8th to 9th Aves., 86th St. from Park to Madison and from Park to 5th Aves., 125th St. from Lexington to Lenox Aves., Bway. from Nagle Ave. to Harlem Ship Canal, East 225th St. to Boro. line, wood and granite block on roadway of Greenwich Ave. from Perry to Bank Sts., wood block on West 18th St. from 8th to 9th Aves.

Pa., Clearfield—Until July 30, by Bd. Comrs. Clearfield Co., building rein.-con. floor on 70 ft. truss bridge over Susquehanna River, at Cherry Tree, also on 155 ft. truss bridge, over Susquehanna River, at Patchinville, both 25 ft. wide. About $50,000. L. C. Norris, clk. E. A. Flink, Commonwealth Trust Bldg., Harrisburg, engr.

Pa., Heidelberg (Pittsburgh P. O.)—Until July 19, by Boro. grading, paving and building sewers in Washington Ave. and Collier St., involving 7,900 sq.yd. vitr. brick on concrete base, 5,400 lin.ft. concrete curbing and 950 lin.ft. pipe, etc. Andrews & Southard, Curry Bldg., Pittsburgh, engrs.

D. C., Washington—Until July 22, by Dist. Comrs., 509 Dist. Bldg., grading various streets; advertised in this issue.

W. Va., Moundsville—Until July 20, by Comrs. Marshall Co. paving 3 mi. Cameron-Poplar Springs Rd., involving 20,000 cu.yd. excav. and 28,000 sq.yd. concrete. About $120,000. R. C. Yoho, Moundsville, engr.

W. Va., Spencer—Until July 23, by A. S. Reynolds, town recdr., grading, curbing and paving Bartlett Ave. from Claud to Spring Sts.; Spring St. from Bartlett Ave. to Water St.; Claud St. from Middle St. to Circle Ave.; Claud St. from Bartlett Ave. to Middle St.; Circle Ave. from Claud St. north and northwest to Bowman 10 ft. alley; Capehart St. from Market to Church Sts.; Middle St. from Claud to Beauty Sts.; Chapman Ave. from College St. to 20 ft. alley at west side of O. Degruyter's lot; Water St. from Market to Alvord Sts.

Georgia—Until July 19, by State Highway Dept., Atlanta, building 6¾ mi. Federal Aid Project 111, Union Co., involving 15,486 acres clearing and grubbing, 60,732 cu.yd. earth and 5,887 cu.yd. rock excav., 1,373 cu.yd. overhaul, 20,688 lin.ft. 15-24 in. pipe, 24 cu.yd. concrete in headwalls, 40.84 cu.yd. rubble masonry culverts, 22,127 cu.yd. Class "A" concrete in culverts, 20,206 lb. reinforcing steel, also two small wood truss bridges involving 21,444 ft. timber, 6,098 lb. iron work, 740 cu.yd. rubble masonry, 600 cu.yd. foundation excav.

Ga., Albany—Until July 28, by Bd. Comrs. Rds. and Revenues, Dougherty Co., hard surfacing 2.5 mi. Federal Aid Project 166, State Aid Project S-2-9, involving 26,400 sq.yd. surfacing and 2.5 mi. grading, (1) bituminous macadam on compacted crushed stone, slag or gravel base (Typical Sect. 7, Georgia Standard 43), if bidder prefers bids may be submitted on basis of Finley method, sand dimensions, (2) bituminous concrete on crushed stone slag or gravel base (Typical Sect. 11, Ga. Standard 43), bids may be submitted on basis of Warrenite surfacing, (3) rock asphalt or Willite on crushed stone or slag base (Typical Sect. 14, Ga. Standard 43).

Ga., Griffin—Until July 28, by Comrs. Rds. and Revenues, Spalding Co., building 4.9 mi. State Aid Project S-6-2, involving 26,945 cu.yd. common, 499 cu.yd. borrow and 10 cu.yd. rock excav., 85 lin.ft. 18-24 in. D.S.V.C. pipe, 30 cu.yd. Class "B" concrete cement in headwalls, 51,600 lin.ft. 2 x 8 in. wood curbing and 45,867 sq.yd. bituminous macadam or rock asphalt paving.

La., Opelousas—Until Aug. 14, by Bd. Supervs. St. Landry Parish, building 8.3 mi. Washington-Grand Prairie Highway, also 11.93 mi. Opelousas-Arnaudville Highway from Cains to Arnaudville. Hollier & Durio, Siazan Bldg., engrs.; advertised in this issue.

O., Ironton—Until July 24, by Comrs. Lawrence Co., resurfacing and paving Greasy Ridge Turnpike at Hamlin Store, involving 500 lin.ft. 9 in. sandstone paving, 400 cu.yd. limestone, bluestone or hardrock to be placed in pile near Bent Creek Bridge; Branch Turnpike 3, Millersport Hill west side, 400 cu.yd. limestone in pile; Turnpike 4, Top Jones Creek Hill, 400 cu.yd. limestone in pile; Big Paddy Turnpike, 700 lin.ft. sandstone paving, beginning at Fair Grounds and running north; Lick Creek Turnpike, 300 cu.yd. limestone in pile, near intersection of Rock Camp Rd.

Indiana—Until July 28, by L. H. Wright, dir. State Highway Dept., Indianapolis, grading and draining 9.498 mi. Sect. B, Natl. Rd. between Brazil and Manhattan, Federal Aid Project 6, Clay and Putnam Counties, involving 62,083 cu.yd. excav. and borrow, cost $83,336; 9.997 mi. Sect. C, Natl. Rd. between Manhattan and point 1½ mi. east of Mt. Meridian, Federal Aid Project 6, Putnam Co., 117,196 cu.yd. excav. and borrow, $142,796; 7.955 mi. Sect. E, French Lick Route between Dale and Huntingburg, Federal Aid Project 16, Spencer and Dubois Counties, 55,553 cu.yd. excav. and borrow, $84,219; 9.042 mi. Sect. F, French Lick Route between Hayesville and Crystal, Federal Aid Project 16, Dubois Co., 132,488 cu.yd. excav. and borrow, $132,903; 8.4 mi. Sect. G, French Lick Route between Crystal and French Lick, Federal Aid Project 16, Dubois and Orange Counties, 90,483 cu.yd. excav. and borrow, $107,745; 7.112 mi. Sect. B, Louisville Rd. between junction of New Albany-Jeffersonville Rd. and Memphis, Federal Aid Project 21, Clark Co., 69,307 cu.yd. excav. and borrow, $85,958; 8.807 mi. Sect. C, Louisville Rd. between Memphis and Underwood, Federal Aid Project 21, Clark Co., 113,439 cu.yd. excav. and borrow, $129,530.

Indiana—By Bd. Co. Comrs. building roads in the following counties:

July 20, Miami Co., Peru, grading, draining, paving with gravel and building culverts and bridges, on Elias Butt et al. Rd. between Peru and Erie Twps. C. Wolf, aud. Miami Co.

July 24, Henry Co., New Castle, grading, graveling or macadamizing J. W. A. Bird et al. Rd., Stoney Creek Twp. E. McFarland, aud.

July 26, St. Joseph Co., South Bend, 4,000 ft. Donmoyer Rd., Portage Twp., asphalt macadam; 14,264 ft. Turkey Creek Rd. Porter and Center Twps., concrete. C. Sedgwick, aud.

Ind., Columbus—Until July 31, by Auditor Bartholomew Co., grading, draining and surfacing with gravel, 15 in. deep at center and 7 in. at sides, 27,510 ft. Sawin Rd., 20 ft. wide, Bartholomew, Shelby and Johnson Counties. About $41,000. H. Thomas, Columbus, engr.

Michigan—Until July 27, by State Highway Dept., at dist. office, Port Huron, grading, draining and surfacing 8.046 mi. Assessment Dist. Rd. 205, 16 ft. wide, St. Clair and Macomb Counties, involving 75,320 sq. yd. gravel surface, 31,318 cu.yd. earth excav., 8,680 lb. steel reinforcement, etc. Noted April 22.

Michigan—Until July 20, by State Highway Dept., at dist. office, Port Huron, grading, draining and paving 1.192 mi. State Trunk Line Rd. 27-2, 20 ft. wide, involving 13,934 sq.yd. concrete, 3,790 cu.yd. earth excav., 521 lb. steel reinforcement, etc.

Mich., Grosse Pointe Park (Detroit P. O.)—Until Aug. 3, by city, grading, shaping and paving 2,500 ft. Beaconfield Ave. from Kercheval to Mack Aves., involving 7,000 sq.yd. concrete and 5,000 lin.ft. concrete curbing. C. H. Marden, 502 Whitney Office Bldg., Detroit, engr.

Mich., Lake City—Until July 29, by Rd. Comrs. Missaukee Co., grading, draining and surfacing 3.05 mi. State Trunk Rds. 74-1 and 14-3, 16 ft. wide, involving 28,283 sq.yd. gravel, 185 lin.ft. pipe ad 106 cu.yd. concrete culverts, 2,363 lb. steel reinforcement. State Highway Dept., Lansing, engrs.

Mich., Monroe—Until July 20, by Comrs. Monroe Co., breaking up old bituminous concrete pavement, widening the grade and placing waterbound macadam to depths of 12 in. on 4.41 mi. State Trunk Line 10-27, 20 ft. wide, involving 26,950 ton waterbound macadam, 7,248 cu.yd. earth excav. State Highway Dept., Lansing, engrs.

Mich., Royal Oak—Until July 19, by F. L. Follensbee, village clk., laying 5 mi. 5 ft. sidewalks on various streets, involving 132,000 sq.ft. concrete. About $33,000. G. E. Weitzel, Royal Oak, engr.

Mich., St. Joseph—Until July 27, by Rd. Comrs. Berrien Co., grading, draining and surfacing 1.23 mi. State Trunk Line Rd. 11-11, 20 ft. wide, involving 13,900 sq.yd. bituminous concrete on waterbound macadam base, 4,106 cu.yd. earth excav., etc. State Highway Dept., Lansing, engrs.

Ill., Ashton—Until July 21, by R. J. Dean, village clk., laying 26 blocks cement paving, sewers, manholes, etc. G. G. Nelson, engr., Glen Ellyn; advertised in this issue.

Ia., Dubuque—Until July 21, by Comrs. Dubuque Co., improving 21.95 mi. roads, involving 151,258 cu.yd. earth and 1,666 cu. yd. rock excav., 72,954 lin.ft. 6-12 in. tile and 15 tile intakes. G. A. Blunt, Dubuque, engr.

Ia., Mt. Pleasant—Until July 20, by Comrs. Henry Co., improving 20.62 mi. various roads, involving 99,282 cu.yd. earth excav., 81,633 lin.ft. 6-12 in. tile and 46 tile intakes. C. E. Smith, Mt. Pleasant, engr.

Ia., Storm Lake—Until July 20, by Comrs. Buena Vista Co., improving 12.84 mi. roads, involving 19,267 cu.yd. gravel, 2,200 lin.ft. 6 in. tile, 50 lin.ft. 12 in. tile and 6 tile intakes. E. H. Cunningham, Storm Lake, engr.

Missouri—Until July 30, by State Highway Dept., Carthage, building 6.47 mi. Joplin-Cathage Rd. (Carthage Special Rd. Dist.), 24 ft. wide, Federal Aid Project 84, Jasper Co., involving 22,258 cu.yd. earth and 6,800 cu.yd. rock excav., 1,642 cu.yd. borrow, 3,000 cu.yd. per 100 ft. overhaul, 68,784 sq.yd. 1 course plain cement concrete pavement, 216.4 cu.yd. Class "B" concrete masonry, etc., cost $205,981, also building 3 span, rein.-con. slab superstructure unit, 18 ft. clear roadway, 2 concrete piers and 2 concrete abutments, on above project, 11.6 cu.yd. Class "A," 47.5 Class "B" and 72.9 cu.yd. Class "C" concrete, 6,410 lb. reinforcement, $4,085.

Missouri—Until July 26, by State Highway Dept., Edina, building 6.29 mi. East and West State Rd., State Aid Project S

Streets and Roads (Continued)

1, Knox Co., involving 19,116 cu.yd. borrow, 19,083 cu.yd. earth excav., 1.7 cu.yd. Class "A," 163.4 cu.yd. Class "B," and 12.8 cu.yd. Class "C" concrete masonry, 13,546 lb. reinforcement for concrete masonry, 94 lin.ft. 12-18 in. vitr. clay pipe culverts. About $26,336.

Missouri—Until July 28, by State Highway Dept., Hermitage, building 8.1 mi. Preston-Collins Rd. (Weaubleau Special Rd. Dist.), 24 ft. wide, Federal Aid Project 72, Hickory Co., involving 25,490 cu.yd. earth and 3,638 cu.yd. rock excav., 7,156 cu.yd. borrow, 100 cu.yd. per 100 ft. overhaul, 57,030 sq.yd. gravel surface course specification B, 269.2 cu.yd. Class "B" and 20.2 cu.yd. Class "C" concrete masonry, 19,913 lb. reinforcement for concrete masonry, 242 lin.ft. 12-18 in. vitr. clay pipe and 37 lin.ft. relaid pipe culvert. About $51,033.

Mo., Bolivar — Until July 29, by Comrs. Polk Co., building 13.864 mi. Bolinger-Springfield Rd. (Springfield Rd. Dist.), 24 ft. wide, Federal Aid Project 33, involving 52,030 cu. yd. earth and 3,555 cu.yd. rock excav., 4,050 cu.yd. borrow, 370.4 cu.yd. Class "B" and 1,686 cu.yd. Class "C" masonry, 22,931 lb. reinforcement for concrete masonry, 124.2 cu.yd. cement rubble masonry, 51,107 sq.yd. 10½ in. and 47,976 sq.yd. 5½ in. gravel pavement, etc. About $72,432.

Tex., Gonzales—Until July 26, by J. C. Romberg, judge Gonzales Co., surfacing 10.03 mi. Highway 3, 16 ft. wide, involving 22,088 cu.yd. gravel and 2,275 lin.ft. concrete pavement. About $65,000. Wilder & O'Neal, Mt. Pleasant, engrs.

Que., St. Dorothee—Until July 20, by Laval Co., building roads. About $50,000. E. A. Gauvrau, Dept. Rds., Quebec, engr.

Ont., Chatham—Until July 21, by Kent Co., paving 3 mi. road south of here, 20 ft. wide, waterbound macadam. About $45,000. W. K. McGeorge, Chatham, engr.

Ont., Hawkesbury—Town receiving bids building roads. About $65,000.

Man., Swan River — Until July 25, by town, building various roads. About $60,000. J. Armstrong, Swan River, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**New Hampshire**—State Highway Comn., Concord, let contract building 2 mi. gravel road, Newbury, to R. E. Bull, 148 Boutelle St., Fitchburg, Mass., $30,316. Noted June 10.

Vt., Bennington — Village received only bid June 23, improving various streets involving 19,300 sq.yd. concrete, 10,110 lin. ft. integral curbing and guttering, 8,500 cu.yd. earth excav., 5,480 ft. 8-36 in. vitr. clay and concrete sewer pipe, from Winslow & Cummings, Nashua, N. H. About $85,000. Noted June 10.

★**Massachusetts** — State Highway Comn., Boston, let contract building highway in town of Egremont, to Lane Constr. Co., 37 Colony St., Meriden, Conn., $39,734.

★**Mass., Newton** (Boston P. O.)—Street Dept. let contract improving 9,600 sq.yd. Parker St., bituminous macadam, to E. C. Sargent, 149 Putnam St., Quincy, $26,586.

★**Rhode Island** — State Bd. Pub. Rds., State House, Providence, let contract rebuilding 4.4 mi. road, Coventry and West Greenwich, involving 285 sq.yd. concrete masonry, 1,300 sq.yd. cobble gutter, 9,700 sq.yd. concrete paving, 27,700 cu.yd. earth and 1,500 cu.yd. rock excav., 12 acres clearing and grubbing, etc., to R. H. Newell Co., Uxbridge, Mass., $240,510. Noted June 17.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract regulating, recurbing and paving Benson and 12th Aves., 49th and 65th St., to Uvalde Asphalt Paving Co., 1 Bway., New York City, $18,354, $16,543, $14,372 and $10,152 respectively; Maspeth Ave., to Grieco Bros., 172 Russell St., $26,235; regulating, grading and curbing Carroll St., to Castle Bros., Johnson Pl., $15,740. Noted July 8.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids July 6, regulating and repaving with asphalt block, (a) 97th St., (b) Mt. Morris Park, (c) 179th St., (d) 182nd St., (e) Dyckman St., with sheet asphalt, (f) Mt. Morris Park, (g) Dyckman St., with asphaltic concrete, (h) East 97th St., (i) Mt. Morris Park, (j) 179th St., (k) 182nd St., (l) Dyckman St., from Hastings Pavement Co., 25 Broad St., (a) $8,776, (c) $37,964, (d) $36,135, (e) $96,535; Asphalt Constr. Co., 2197 Madison Ave., (f) $62,072, (g) $94,940; Uvalde Asphalt Paving Co., 1 Bway., (f) $63,226, (g) $86,587, (h) $17,393, (i) $67,057, (j) $36,780, (k) $33,511, (l) $86,119; Sicilian Asphalt Paving Co., 41 Park Row, (f) $63,846; J. L. Busstar, Harlem River and 150th St., (f) $63,982, (g) $86,587, (h) $17,589, (i) $65,096, (j) $37,091, (k) $34,677, (l) $87,911. Noted July 1.

★**N. J., South Amboy**—Bd. Supervs. Middlesex Co. (New Brunswick) let contract repairing Bordentown Ave., here, to T. H. Riddle, 102 Church St., New Brunswick, $141,500.

Pa., Pittsburgh—City received bids June 21, grading, paving and curbing Woodville Ave. from Independence St. to Banksville Ave., involving (a) 4,467 cu.yd. grading, (b) 350 cu.yd. trench excav., (c) 840 sq.yd. new block stone type 4 pavement, (d) 1,930 sq.yd. sheet asphalt, (e) 4,793 lin.ft. type 1 protected concrete curbing, (f) 22,828 lb. steel reinforcement, (g) 408 cu.yd. plain concrete in retaining walls, abutments and wing walls, (h) 331 cu.yd. rein.-con. in retaining walls and bridge (i) 310 cu.yd. concrete facing, etc., from J. H. McQuade & Sons Co., Bakewell Bldg., (a) $2, (b) $5 (c) $6.25, (d) $5.20, (e) $1.50, (f) $0.09, (g) $22, (h) $25, (i) $25, total $63,886; T. Cronin Co., South 17th and Muriel Sts., (a) $2, (b) $3, (c) $6.50, (d) $4.10, (e) $1.50, (f) $0.10, (g) $24, (h) $28, (i) $33, $66,263; Booth & Flinn, Ltd., 1942 Forbes St., (a) $2.50, (b) $3, (c) $5.70, (d) $5.70, (e) $1.50, (f) $0.10, (g) $20, (h) $25, (i) $30, $66,936.

★**Va., Chatham**—Pittsylvania Co. let contract building 2.99 mi. highway from Schoolfield to state line, involving 18 acres clearing and grubbing, 14,626 cu.yd. excav. and 28,071 sq.yd. 6 in. bituminous macadam, to Battershill & Clay, Virgilina, $82,950.

★**North Carolina**—State Highway Comn., at div. office, Greensboro, let contract top soiling 12.22 mi. Federal Aid Project 111, Forsyth Co., to C. B. Hester, Greensboro, $61,896; 13.6 mi. Federal Aid Project 80, Montgomery Co., to J. A. Kreis & Co., Knoxville, Tenn., $183,556. Noted July 8.

★**Ky., Henderson**—Henderson Co. let contract grading and graveling 5 mi. Owensboro Rd. from Hebbardsville to Green River, to O. Haynes & Co., Henderson, $32,000; 2 mi. Calhoun Rd. (Niagara Rd.), to Brown & Co., Henderson, $16,000.

★**O., Cincinnati** — City let contract improving Hamilton Ave. from Belmont Ave. to North Bend Rd., to Kirchner Constr. Co., 221 West 9th St., $234,022. Noted June 24.

★**O., Cleveland**—City let contract grading, draining, curbing and paving Superior Ave. from East 12th to East 21st St. and from East 21st to East 27th St., to Rieley Bros., The Arcade, $186,448 and $163,382 respectively. Noted July 1.

★**Ind., Clinton**—City let contract grading, excav. and paving North 9th and South Main Sts., 1 course rein.-con., to Foulkes Constr. Co., 705 Ohio St., Terre Haute, $41,779 and 46,654 respectively.

★**Michigan**—State Highway Dept., Lansing, let contract improving 1.437 mi. State Trunk Line Rd. 27-7, 20 ft. wide, Harbor Beach, Huron Co., involving 16,863 sq.yd. concrete and 3,229 cu.yd. earth excav., to Burley-Ramsey Co., Harbor Beach, $65,487; 2.963 mi. State Trunk Line Rd. 16-8, 16 ft. wide, Clinton Co., 27,801 sq.yd. gravel surface, 12,031 cu.yd. earth excav., to Byam & Whittmore, Eagle, $42,072; 2.209 mi. State Trunk Line Rd. 20-9, Sects. A and C, 16 ft. wide, Osceola Co., 20,626 sq.yd. gravel top on stone base, 11,091 cu.yd. earth excav., to J. W. Patterson, Reed City, $30,647; 3.551 mi. State Trunk Line Rd. 27-10, 16 ft. wide, St. Clair Co., 33,223 sq.yd. crushed stone surface, 20,715 cu.yd. earth excav., to C. McComb, Algonac, $33,668; 9.179 mi. Federal Aid Rd. 44, Sect. A, 16 ft. wide, Lenawee Co., 86,158 sq.yd. gravel surface, 69,549 cu.yd. earth excav., 1,277 lin.ft. tile culverts, 234 cu.yd. concrete in culverts, 3,360 lb. reinforcing steel, etc., to Artificial Stone Co., Eaton Rapids, $168,566; State Trunk Line Rd. 16-3, Eaton Co., 69,505 sq.yd. gravel surface, 347 stations fine grading, to M. E. Fitzpatrick, 120 West St. Joseph St., Lansing, $55,604. Noted Feb. 19 and May 27.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids June 25, paving (1) alley between Blackhawk, Elk, Paulina and Bauwans Sts., involving 210 cu.yd. grading, 540 sq.yd. 7 in. concrete, (2) alley between Congress, Harrison, Keeler and Kildare Sts., 400 cu.yd. grading, 1,030 sq.yd. asphalt on 7 in. concrete, (3) alley between Wilmot and Milwaukee Aves., Leavitt St. and Oakley Blvd., 1,600 ft. concrete curbing, etc., 713 cu.yd. grading, 1,250 sq.yd. vitr. brick on 6 in. concrete, 310 ft. tile sewers, etc., (4) alley between Van Buren and Congress Sts., Western and Campbell Aves., 405 cu. yd. grading, 1,552 sq.yd. asphalt on 7 in. concrete, (5) alley between Wrightwood Ave., Altgeld St., Sawyer and Spaulding Aves., 477 cu.yd. grading, 1,500 sq.yd. asphalt on 7 in. concrete, 230 ft. 10 in tile sewers, etc., (6) alley between Logan Blvd., Altgeld, Mozart and Francisco Sts., 1,060 sq. yd. asphalt on 7 in. concrete, 280 ft. 10 in. tile sewers, etc., (7) alley between Augusta St., Milwaukee Ave and Will St., 1,190 ft. concrete curbing, 581 cu.yd. grading, 980 sq.yd. vitr. brick on 6 in. concrete (8) alley between Congress and Harrison Sts., Kilpatrick and Cicero Aves., 320 cu.yd. grading, 1,280 sq.yd. asphalt on 7 in. concrete, etc., (9) South Park Ave. from East 91st to East 95th Sts., 5,000 ft. concrete curbing, 6,000 cu.yd. grading, 11,010 ft. 8 in. blast furnace slag or limestone on 2½ in. crushed granite or traprock, etc., (10) Lamon Ave. from Oakdale to Barry Sts., 2,050 ft. concrete curbing, 1,281 cu.yd. grading, 2,860 sq.yd. asphalt on 6 in. concrete, 200 ft. 10 in. tile sewers, etc., (11) Loomis St. from West 22nd St. to point 2,048 ft. south, 3,980 ft. concrete curbing, 2,000 cu.yd. grading, 5,230 sq.yd. vitr. brick on 8 in. concrete, etc., (12) Loomis St. from point 500 ft. north of West 90th to West 93rd Sts., 5,250 ft. concrete curbing, 5,000 cu.yd. grading, 8,500 sq.yd. 10 in. blast furnace slag or limestone on 2½ in. limestone bonded with asphaltic cement, 122 ft. 10 in. tile sewers, etc., (13) West 105th St. from Wentworth Ave. to Chicago & Eastern Indiana Ry. right of way, 2,570 ft. curbing, 2,200 cu.yd. filling, 4,270 sq.yd. 10 in. blast furnace slag or limestone on 2½ in. crushed limestone bonded with asphaltic cement, etc., (14) North Parkside Ave. from LeMoyne St. to West North Ave., 1,250 ft. concrete curbing, 425 cu.yd. grading, 1,670 sq.yd. asphalt on 6 in. concrete, etc., (15) South Leavitt St. from point 136 ft. north of West 18th to West 22nd Sts., 3,300 ft. concrete curbing, 1,200 cu.yd. grading, 4,530 sq.yd. asphalt on 6 in. concrete, 22 catch-basins, from Central Paving Co., 179 West Washington St., (1) $2,325, (2) $5,133, (3) $12,983, (4) $6,634 (5) $8,771, (6) $6,789, (7) $7,970 (8) $6,117; J. Dillon & Co., 179 West Washington St., (1) $2,345, (2) $5,107, (3) $13,227, (4) $6,607, (5) $8,781, (6) $6,804, (7) $8,048 (8) $6,058; Contg. & Material Co., 3219 South Michigan Ave., (1) $2,480, (2) $5,213, (3) $13,358, (4) $6,705, (7) $8,236, (8) $6,309; J. A. Ross & Co., 4561 Armitage Ave., (5) $8,796, (6) $6,765; J. A. Sackley Co., 133 West Washington St., (9) $57,408, (11) $48,825, (12) $53,334, (13) $24,499; Farr Bros. Co., 356 West 111th St., (9) $58,268, (12) $52,991, (13) $24,328; R. F. Conway Co., 133 West Washington St., (10) $21,204, (14) $10,748, (15) $29,946; Amer. Asphalt Paving Co., 1331 West Washington St., (10) $21,325, (14) $10,568, (15) $30,321; White Paving Co., 17 North La Salle St., (10) $21,359, (14) $10,650, (15) $30,668; Ready & Callaghan Coal Co., 133 West Washington St., (11) $48,175; J. A. McGarry & Co., 189 West Madison St., (12) $52,769, (13) $24,637.

Wis., Mayville—City received bids June 29, improving Main, School and Bridge Sts., etc., involving (a) 8,100 cu.yd. grading, (b) 17,500 sq.yd. rein.-con. pavement, (c) 17,500 sq.yd. asphaltic concrete, (d) 17,500 sq.yd. sheet asphalt, (e) 5,100 lin.ft. concrete, curb and gutter, (f) 17,500 sq.yd bituminous concrete from L. Larsen, 104 Main St., Oshkosh, (a) $1.39 per cu.yd., (b) $3.69, (c) $1.29; J. Rasmussen & Sons, 7th St., Oshkosh, (a) $1.40, (c) $3.85, (d) $3.90, (e) $1.20, (f) $4.04; F. Caughlin Co., 30 North La Salle St., Chicago, (a) $1.50, (c) $4, (d) $4.20, (f) $1.25, (f) $4.30. Noted June 24.

★**Wis., Milwaukee** — Bd. Pub. Wks. let contracts paving and building cement sidewalks on (1) north side Atkinson Ave. from Green Bay to 11th Sts., involving 4,816 sq. ft. cement walks, (2) Ontario St. from Superior to Beulah Aves., 1,025 sq.yd. light traffic asphalt, (3) 16th St. from Vliet to Fond du Lac Aves., 8,648 sq.yd. standard sheet asphalt, (4) 17th St. from Mendels sub-division to Davis St., 1,184 sq.yd. standard sheet asphalt, (5) Wells St. from 33rd to 35th Sts., 1,359 sq.yd. light traffic asphalt resurface, (6) alley between East Water, Market, Knapp and Juneau Aves., 559 sq. yd. cement concrete pavement, (7) alley between 16th, 17th, Clybourn and Grand Aves., 660 sq.yd. cement concrete, (3) alley between Sherman, Walnut, 10th and 11th Sts., 430 sq.yd. cement concrete, (9) alley between 10th, 11th, Vine and Harmon Sts., 480 sq.yd. cement concrete, (10) alley between 5th, 6th, Hayes and Arthur Aves., 1,277 sq.yd. cement concrete, (11) alley between Arthur, Harrison, 10th and American Aves., 1,166 sq.yd. cement concrete, (12) alley between Arthur, Harrison, 3rd and 4th Aves., 1,440 sq.yd. cement concrete, (13) alleys between 26th, 27th, State and Cedar Sts., 850 sq.yd. cement concrete, (14) south alley between east and west and north and south between 34th, 35th, Clybourn and St. Paul Sts., 822 sq.yd. cement concrete, (15) north, alley between 30th, 31st, St. Paul and Clybourn Sts., 502 sq.yd. cement concrete, (16) alley between 32nd, 33rd, Park Hill and Mt. Vernon Sts., 963 sq.yd. cement concrete, (17) alley between 39th, 40th, Clarke and Center Sts., 1,219 sq.yd. cement concrete, (18) alleys between 47th, 48th, Elm and North Aves., 736 sq.yd.

Streets and Roads (Continued)

cement concrete, (19) alley between 38th, 39th, Clarke and Center Sts., 784 sq.yd. cement concrete, (20) alley between 57th, 58th, Elm and North Aves., 810 sq.yd. cement concrete, (21) alley between 26th, 28th, Madison and Greenfield Sts., 827 sq.yd. cement concrete, (22) alley between 17th, 18th, South Pierce and National Sts., 555 sq.yd. cement concrete, (23) alley between 14th, 15th, Davis and Finn Sts., 1,119 sq.yd. cement concrete, (24) alley between 9th, 10th, Ring and Concordia Aves., 946 sq.yd. cement concrete, (25) alley between 10th, 11th, Ring and Concordia Aves., 947 sq.yd. cement concrete, (26) alley between 12th, Louis, Ring and Concordia Aves., 955 sq.yd. cement concrete, (27) alley between 14th, 15th, Ring and Concordia Aves., 562 sq.yd. cement concrete, (28) alley between 17th, 18th, Davis and Finn Sts., 464 sq.yd. cement concrete, to F. Schomann, 770 28th St., (1) $0.35 per sq.ft; White Constr. Co., 420 East Water St., (2) $3.65 (4) $3.90, (5) $2.35; Badger Constr. Co., Ry. Exch. Bldg., (3) $387; F. Banaszak, 1335 4th Ave., (6) $2.45, (10) $2.24, (11) $2.24, (22) $2.33; M. Switalski, 765 5th Ave., (7) $2.35, (14) $2.45, (16) $2.45, (23) $2.40; Retzlaff, Froemming & Bluhm, 948 4th St., (8) $2.52, (9) $2.48; R. H. Gumz, 831 13th Ave., (12) $2.25; Blodgett-Clayton Constr. Co., 204 Grand Ave., (13) $2.34, (19) $2.36, (21) $2.36; Dean Constr. Co., Camp Bldg., (15) $2.70, (20) $2.70; O. Bodemann, 801 Winnebago St., (17) $2.35, (18) $2.30, (24) $2.35, (25) $2.35, (26) $2.35, (27) $2.35, (28) $2.35. Noted June 24.

★**Minn., Detroit**—Becker Co. let contract grading and graveling Federal Aid Project 132, Sect. B, to L. P. Graham, Frazee, $27,287. Noted May 20.

★**Minn., Mankato**—Blue Earth Co. let contract grading 7 mi. Federal Aid Project 153, 24 ft. wide, to Grant Smith & Co., 1505 Pioneer Bldg., St. Paul, $50,204.

★**Kan., Girard**—Crawford Co. let contract grading and draining 2.98 mi. Federal Aid Project 40, Sects. H and I, 18 ft. wide, to Maxwell Constr. Co., Columbus, $44,510. Noted June 24.

★**South Dakota**—State Highway Comn., Pierre, let contract grading and draining 10.88 mi. Redfield-Watertown Rd., 36 ft. wide, Federal Aid Project 34, Spink Co., involving 27,833 cu.yd. common, 20,301 yd. sta. overhaul and 240 cu.yd. structure excav., 16,758 lb. reinforcing and 745 lb. structural steel, 1,602 lin.ft. rein.-con. or corrugated iron pipe culverts, 187 cu.yd. Class "A" and 109 cu.yd. Class "B" concrete, to D. D. Bidwell, Eagan, $61,102. Noted July 1.

★**South Dakota**—State Highway Comn. Pierre, let contract graveling 10 mi. Sioux Falls-Del Rapids Rd., 24 ft. wide Federal Aid Project 12, Minnehaha Co., to W. R. Shipman Constr. Co., Sioux City, Ia. About $76,000. Noted March 25.

Mo., Carthage—Jasper Co. received bids June 25, building 2.76 mi. Joplin-Carthage Rd. (Carterville Special Rd. Dist.), 24 ft. wide, Federal Aid Project 81, from Koch & Kost, Joplin, $85,466; Carterville Constr. Co., Carterville, $86,118. Noted June 17.

★**Mo., Kansas City**—Park Bd. let contract grading roadway, Linwood Blvd. from Independence Ave. to 31st St., involving 176,000 cu.yd. earth excav., to H. H. Hancroft, Kansas City, $0.77 per cu.yd.

Tex., Austin—Travis Co. received bids July 5, improving (1) 3.1 mi. Austin-Georgetown Rd., 16 ft. wide, involving (a) grading and surfacing with rock, (b) surfacing with bituminous topping, (c) building rein.-con. drainage structures, (2) 3 mi. Austin-Oak Hill Rd., (a) grading and surfacing with gravel, (b) building rein.-con. drainage structures, (c) surfacing with bituminous topping, from McMillen & Williamson, Austin, (1a) $31,976; Brown & Root, Taylor, (1a) $34,000, (2a) $12,195; Finley Method Co., 703-4 Stewart Bldg., Houston, (1a) $29,033, (1b) $22,919, (1c) $3,678, (2a, b, c) $49,537; W. E. Dozier, Dam Blvd., (1b) $25,921, (1c) $3,808, (2b and c) $39,253; Haden & Austin, 727 Kress Bldg., Houston, (1b) $19,815. Noted July 1.

★**Tex., Bastrop**—Bastrop Co. let contract grading, surfacing and draining 2.28 mi. Highway 3-A between here and Austin, 16 ft. wide, to Rice & Winder, Cameron, $22,068; including 10% for engineering and contingencies. Work involves 5.6 acres clearing and grubbing, 11,063 cu.yd. borrow and 1,941 cu.yd. earth excav., 6,631 cu.yd. gravel, 9,258 lb. reinforcing steel, 89.7 cu.yd. Class "A" and 38.6 cu.yd. Class "B" concrete.

Tex., Cooper—Delta Co. received bids grading, gravel surfacing and building rein.-con. culverts on 11.7 mi. Highway 39 from here to Hunt Co., 14 ft. wide, from Smith Bros. and Healey Constr. Co., c/o Healey Constr. Co., Dallas, $145,497; Wear, Thomas & Ratcliff, Rogers, $124,438. Work involves 10 acres clearing and grubbing, 74,797 cu. yd. earth excav., 6,280 sq.yd. concrete pavement, 22,681 cu.yd. gravel furnished by county, cost $65,975, 411.4 cu.yd. Class "A," 91.67 cu.yd. Class "B" and 34.82 cu.yd. Class "C" concrete.

★**Tex., Longview**—Greeg Co. let contract furnishing labor and material improving 14.49 mi. Highway 1 from Harrison Co. to Upshur Co. line, 16 ft. wide, involving 33,373 gal. bituminous material and 1,483 cu.yd. trap rock cover material, to Texas Road Co., Great Southwestern Life Bldg., Dallas, $25,981; including 10% for engineering and contingencies.

★**Tex., Mt. Pleasant**—Titus Co. let contracts to Smith Bros., Crockett, grading, surfacing and draining 11.21 mi. Highway 1, Federal Aid Project 27, 16 ft. wide, $168,172; 5.75 mi. Highway 35, State Aid Project 84, 16 ft. wide, $49,272; 7.26 mi. Highway 1 from point 4 mi. east of here to Morris Co. line, 16 ft. wide, $68,117; 5.148 mi. Highway 11 from here to Camp Line, 12 ft. wide, $44,579. All include 10% for engineerng and contingencies. Noted July 1.

Tex., Paris—Lamar Co. received bids surfacing (1) 27.7 mi. Highway 5 from county line to county line, 16 ft. wide, involving 33,991 cu.yd. scarifying, 68,261 cu.yd. gravel, 4,146 cu.yd. macadam stone and 260,019 sq.yd. rolling, (2) 22.16 mi. Highway 19 from county line to county line, 16 ft. wide, 32,791 sq.yd. scarifying, 40,764 cu.yd. gravel, 2,112 cu.yd. limestone base, etc., from Thomas & Ratcliff, Rogers, (1) $146,907, Womack, McElwrath & Rogers, Corsicana, (1) $164,079, (2) $180,090; Smith Bros. & Healey Constr. Co., c/o Smith Bros., Crockett, (1) $193,127, (2) $212,897; Laroe & Burgess, Mineola, (2) $214,367.

★**Cal., San Diego**—Bd. Supervs. San Diego Co. let contract paving 9.75 mi. Mission Rd. 1 A, 15 ft. wide, 5 in. concrete, to Hunkin-Conkey Constr. Co., Box 536, Los Angeles, $262,995.

★**Cal., San Diego**—Bd. Supervs. San Diego Co. let contract paving 7.5 mi. Coronado-Chula Vista Rd., Sect. 6, 18 ft. wide, 5 in. Portland cement concrete, to G. R. Daley, McNeece Bldg., $159,709; 9.5 mi. Julian Rd. No. 3 A, 18 ft. wide, to D. H. Ryan, San Diego, $225,368. Noted June 24.

★**Cal., Stockton**—City let contract paving North St., to Federal Constr. Co., Call Bldg., San Francisco, $41,178.

★**Que., Montreal**—City let contract paving St. Ambrose St., to Sicily Asphaltum Paving Co., 60 St. Viteur St. E., $100,875; St. Patrick St. and Western Aves., to Quinlan & Robertson, 260 St. James St., $45,034 and $19,420 respectively. Noted June 17.

Ont., Sarnia—City let contract paving 1½ mi. Confederation St., 24-40 ft. wide, involving 12,000 sq.yd. 3 in. asphalt on concrete base, to Warren Bituminous Co., McKinnon Bldg., Toronto, $66,108.

Railways

PROPOSED WORK

New York—General Electric Co., River Rd., Schenectady, plans to build 3 mi. railway from Schenectady to Rotterdam Jct. C. G. Hulth, supt. of Grounds & Bldg. Dept.

Ohio—Cleveland Ry., Leader-News Bldg., plans to build 2 mi. single track on Ridge Rd. from Pearl to Bean Rds. About $100,000. C. C. Clark, ch. engr.

Indiana—See "Industrial Works" under Ft. Wayne.

Michigan—Detroit Municipal Street Ry. received no bids June 21, furnishing 55,000 oak ties. Noted June 17.

Ontario—A conference has just been held at Niagara Falls between Sir Adam Beck, chn., Hydro Electric Comn., and owners of Niagara railway arch bridge, in reference to use of bridge by radial railway lines, which will necessitate four-tracking same. The conference gives good promise of the project going through. Charles Evan Fowler, engr., 25 Church St., New York City, will prepare plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Michigan—Detroit Municipal Street Ry. received bids June 21, building (a) Charlevoix-Buchanan Route, (b) St. Jean, Shoemaker, Montclair Line, (c) Warren Ave., West Line, (d) furnishing rails, rods, nuts, spikes, splices, bolts, etc., from Lennane & McIlvenna, 1205 Book Bldg., (a) $676,977, (c) $99,963; Dept. Pub. Wks., Detroit, (a) $676,211; J. A. Mercier, 216 Hammond Bldg., (a) $605,531, (b) $164,730; T. E. Currie, 20 McGraw Bldg., (b) $167,080; J. Porath, 34 McGraw Bldg., (c) $78,019; Bethlehem Steel Co., Bethlehem, Pa., (d) $709,676; Lorain Steel Co., Lorain, O., (d) $553,392. Noted June 17.

Excavation and Dredging

PROPOSED WORK

Ark., Texarkana—Reclamation—Index-Sulphur D. D. plans to make surveys for system to reclaim 125,000 acres of overflowed lands along Red River, near here. Morgan Eng. Co., Goodwyn Institute Bldg., Memphis, Tenn., engrs.

Utah, Widtsoe—Irrigation—Johnsville Irrigation Co. plans to reconstruct Hatchtown dam to impound 6,000 acre-ft. of water and build canals to bring water to company's holdings. About $120,000. E. Jorgensen, pres.

BIDS DESIRED

Ia., Clarinda—Channel—Until July 21, by Bd. Supervs. Page Co., building new channel for Nishnabotna River, in D. D. 17, involving 678,309 cu.yd. excav. V. Freed, aud.

Ia., Des Moines—Drainage—Until July 19, by F. J. Alber, aud. Polk Co., building Polk-Story D. D. 4, involving 13,500 ft. 6-26 in. tile.

Ia., Ft. Madison—Drainage—Until July 27, by R. A. Gardner, aud. Lee Co., improving Green Bay Levee and D. D. E. T. Perkins Eng. Co., 1211 1st Natl. Bank Bldg., Chicago, engrs.; advertised in this issue. Noted May 6.

Ark., Jonesboro—Ditches—Until July 20, by Bd. Comrs. D. D. 24, Craighead Co., at office of A. L. Salmons, secy., 108½ West Washington Ave., building ditches in said district, involving 950,000 cu.yd. excav.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Pa., Wilkes-Barre**—Dredging—City let contract dredging and widening Solomon Creek, to Goeringer Constr. Co., South Washington St., $52,580.

★**Ia., Storm Lake**—Drain—Buena Vista Co. let contract improving D. D. 128, to H. Johnson, Albert City, and Cement Products Co., Spencer. Noted April 29.

Industrial Works

PROPOSED WORK

Mass., Dorchester (Boston P. O.)—Byrne Realty Co., 435 Geneva Ave., having plans prepared by M. H. Maney, archt., 16 Paisley Park, for 1 story, 95 x 165 ft., brick and concrete addition to garage, concrete flooring and foundation, on Holmes Ave. About $50,000.

Conn., Plantsville—Atwater Mfg. Co. plans to build plant to replace one recently destroyed by fire. Loss $100,000. Private plans.

N. Y., Buffalo—Parenti Motors Corp., 1754 Main St., plans to build 1 story, 105 x 350 ft., brick, concrete and steel factory, on Kensington Ave. along tracks of Delaware, Lackawanna & Western R.R. About $200,000.

N. Y., New York—Sommerfeld & Steckler, archts. and engrs., 31 Union Sq., receive bids about Aug. 2, building 7 story, 50 x 50 ft., brick, concrete and steel factory, rein.-con. flooring, concrete foundation, for Rigaud Perfume Co., 75 Barrow St. Noted July 8.

N. Y., New York—J. M. Felson, archt. and engr., 1133 Bway., soon lets contract building 3 story, brick and steel garage and service station, rein.-con. flooring, concrete foundation, on Manhattan Ave. and 130th St., for S. and Z. Bldg. Co., c/o architect. About $120,000. Noted July 1.

N. J., Orange—Monroe Calculating Machine Co., Mitchell St., having plans prepared by Amer. Concrete Steel Co., archts. and engrs., 27 Clinton St., Newark, for 4 story, 68 x 178 ft., rein.-con. addition to factory.

Pa., Johnstown—Heyl & Patterson, Inc., 50 Water St., Pittsburgh, having plans prepared for additions to factory here, to include 99 x 264 ft. washer and pit building and 40 x 60 ft. larry bin building, both 1 story brick and steel. Private plans.

D. C., Washington—Marsh & Peter, archts. and engrs., 522 13th St., soon lets contract building 9 story, rein.-con., brick and steel addition to plant, rein.-con. flooring, concrete foundation, for Star Newspaper Co., 11th St. and Pennsylvania Ave.

Va., Richmond—Old Dominion Beverage Co. plans to build factory at 1300 West Broad St. About $100,000.

Va., Richmond—Virginia Chemical Co., 12th St., had plans prepared for 5 story plant, steel. About $250,000. Private plans.

N. C., Hickory—United Mills Co. plans to build cotton yarn mill. About $50,000. R. C. Biberstein, 614 Elizabeth Ave., Charlotte, engr.

Tenn., Memphis—Fly Shot Co., Nashville, Ga., purchased site on Iowa Ave. and 4th St. here, and plans to build 2 story, 50 x 150 ft. factory. About $100,000.

Industrial Works (Continued)

Ky., Louisville—Dixie Belle Refining Co., 701 Inter-Southern Bldg., plans to build refinery on Western Parkway. About $500,000. C. B. Haun, owner, archt.

O., Akron—B. F. Goodrich Co., South Main St., plans to build 8 story warehouse, 530,000 ft. floor space, on Rubber and Falor St., to cost $1,000,000. Company announces its 1920 building program will aggregate $10,000,000 and include erection of many small buildings, water softener plant and power house.

O., Cincinnati—E. K. Shannon Chemical Co., Dana Ave. and along tracks of Cincinnati, Lebanon & Northern R.R., soon lets contract building 1 story, 100 x 157 ft. chemical warehouse, rein.-con., brick and steel, con. foundation. Rendigs, Panzer & Martin, Palace Theatre Bldg., archts.

O., Cleveland—Republic Tool & Mfg. Co., 1399 West 9th St., plans to build 1 story, 60 x 210 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Harvard Ave. and Independence Rd. About $100,000. C. E. Lowe, pres. Architect and Engineer not selected.

O., Troy—Gummed Products Co. plans to build 2 story, 100 x 140 ft., rein.-con. factory, rein.-con. flooring, concrete foundation, on Market St. About $200,000. Private plans.

Ind., Ft. Wayne—The International Harvester Co. of Amer., Inc., 606 South Michigan Ave., Chicago, has purchased 140 acre site, east of here, and plans to build plant for the manufacture and assembling of motor trucks. First unit will cover 12 acres, and include number of standard 1 story, steel buildings of monitor type and 3 story, L-shaped, rein.-con. building, to house carpenter shops and shipping dept. Ultimate development of entire plant as now planned will extend over period of 3 years and cost about $4,000,000. Incidental to construction of plant proper, will be development of number of transportation and civic projects, including railway connecting several steam railroads, extension of streets, street railway lines, sewers, water mains, electric lights, gas and telephone services and 1,000 homes for future employees. Private plans.

Ind., Syracuse—Wawasee Tire & Rubber Co., Elkhart, plans to build 3 story, 50 x 175 ft., brick, tile and concrete mill, here. R. L. Simmons, c/o owner, archt. and engr.

Mich., Detroit—Crane & Co., Atwater and Randolph Sts., had plans prepared by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, for 1 story 96 x 160 ft. pipe warehouse steel and corrugated iron, rein.-con. flooring, concrete foundation, with crane ways, on Rivard and Franklin Sts. About $50,000.

Mich, Detroit—Detroit Casket Co, 185 Congress St, having plans prepared by Van Leyen, Schilling, Keough & Reynolds, archts., Cass Ave., for 3 story, 115 x 150 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation. About $100,000.

Mich., Detroit—Detroit Transportation Assn. c/o F. L. Henk, secy. Bd. of Commerce, plans to build 1 story, 150 x 165 ft. freight terminal, garage and service station, brick and steel, on 14th Ave. and Howard St. About $75,000. Private plans.

Mich., Durand—City plans to build power house for waterworks and lighting plant. About $50,000. R. A. Murdock, 603 Free Press Bldg., Detroit, engr.

Ill., Chicago—Great Western Smelting & Refining Co., 600 West 41st St., plans to construct 3 large 1 story units and office building, on Union Ave. and 51st St. About $1,000,000. H. L. Newhouse, 4630 Prairie Ave., archt.

Wis., Racine—Hamilton-Beach Mfg. Co., Rapids Drive, had plans prepared for A. L. Flegel, archt., Baker Blk., for 1 story, 80 x 200 ft., brick and steel foundry, concrete foundation. About $60,000.

Wis., Waukesha—Waukesha Casting Co., 340 Bway., having plans prepared by C. Kawin Co., engrs., 431 South Dearborn St., Chicago, for 1 story, 120 x 130 ft., brick and steel foundry, concrete flooring and foundation. About $50,000.

Ia., Des Moines—Sargent & Ash Milling Co. soon receives bids building 4 story flour mill, rein.-con., on Guthrie Ave. About $200,000. Private plans.

Ia., Marshalltown—C. A. Dunham Co., 343 South Dearborn St., Chicago, plans to build 2 story, 40 x 150 ft. addition to factory. About $150,000. Architect not selected.

Minn., Minneapolis—Russell Miller Milling Co., Security Bldg., having plans prepared by Kees & Colburn, archts., 246 Plymouth Bldg., for 1 story, 50 x 140 ft. addition to warehouse, rein.-con., on 25th S. E. and Marshall Aves. C. G. Freys, secy.

Ark., Little Rock—Shoemaker Bldg. Co. soon lets contract building 2 story, 140 x 150 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Center St. About $175,000. Sanders & Ginocchie, Little Rock, archts.

Ont., Bell River—Fraser & Bryson Lbr. Co., Ltd., Castle Bldg., Ottawa, soon receives bids building ground wood pulp mill, here. About $300,000.

Ont., Porcupine—McChesney, Ltd., soon receives bids building saw mill. About $100,000.

Que., Montreal—Sea Sled Co., Ltd., plans to build plant. About $250,000. W. J. Shaughnessy, Montreal, interested.

Que., Nouvelle—A. Filion, Ltd., soon receives bids building planing and saw mill. About $100,000.

BIDS DESIRED

S. C., Anderson—Until Aug. 1, by D. Brown, building 2 story, 60 x 150 ft. brick, rein.-con. and steel warehouse. About $60,000. Noted June 24.

O., Cleveland—See "Buildings."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Cambridge**—Webster & Libby, archts. and engrs., 334 Congress St., Portland, Me., let contract to J. T. Scully Co., 118 1st St., East Cambridge, building 3 story, 106 x 127 ft., rein.-con. addition to bakery, rein.-con. flooring, concrete foundation, on Sidney St., for Johnson Educator Food Co., 100 Sidney St. About $125,000. Noted May 27.

★**Mass., Malden**—Standard Oil Co. of New York, 26 Bway., New York City, let contract building 1 story, 60 x 102 ft. warehouse and 1 story, 60 x 132 ft. boiler house, rein.-con. and steel, rein.-con. flooring, concrete foundations, here, to H. D. Best, 175 5th Ave., New York City.

★**Mass., Norfolk Downs** (Boston P. O.)—Boston Gear Wks. let contract building 1 and 2 story, 100 x 120 ft., brick and steel addition to plant, concrete foundation, to Canter Constr. Co., 6 Beacon St., Boston. About $60,000.

★**Mass., Somerville** (Boston P. O.)—Great Atlantic & Pacific Tea Co., 451 D St., South Boston, let contract building 5 story, 100 x 370 ft., rein.-con. warehouse, rein.-con. flooring, concrete foundation, on Pittsburg St., to Turner Constr. Co., 178 Tremont St., Boston. About $650,000.

★**Mass., Worcester**—M. N. Ullman, 50 Water St., will build 1 story, 80 x 95 ft., brick and concrete garage, rein.-con. flooring, concrete foundation, on School St. About $50,000. Work will be done by day labor. Noted July 1.

★**Conn., East Hartford** (Hartford P. O.)—A. F. Way Co., 32 Union Pl., Hartford, let contract building 1 story, 50 x 150 ft., brick and concrete factory, rein.-con. flooring, concrete foundation, here, to E. L. Gates, 138 North Elm St., Manchester. About $75,000. Noted July 1.

★**Conn., Groton**—M. Pollack, 14-16 East 22nd St., New York City, let contract building 2 story, 60 x 180 ft., rein.-con. and steel dye house, rein.-con. flooring, concrete foundation, here, to H. D. Best, 175 5th Ave., New York City.

★**N. Y., Brooklyn**—Natl. Lead Co., 111 Bway., New York City, let contract building 4 story, 50 x 100 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Marshall St., to White Constr. Co., 95 Madison Ave., New York City. About $110,000.

★**N. Y., Buffalo**—Standard Oil Co. of New York, 26 Bway., New York City, let contract building 4 story, 105 x 115 ft., rein.-con. and steel addition to garage, rein.-con. flooring, here, to H. D. Best, 175 5th Ave., New York City.

★**N. Y., New York**—J. M. Felson, 1133 Bway., will build 2 story, 75 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 36th St. About 60,000. Work will be done by day labor.

★**N. Y., Richmond Hill** (Jamaica P. O.)—R. M. Krauser, c/o C. Bauer, archt. and engr., 788 Manhattan Ave., Brooklyn, will build 3 story, 60 x 100 ft., brick and steel factory, rein.-con. flooring, concrete foundation, here. About $80,000. Work will be done by day labor. Noted June 24.

★**N. Y., Syracuse**—Standard Oil Co. of New York, 26 Bway., New York City, let contract building 2 story, 100 x 140 ft. warehouse, 1 story, 40 x 55 ft. tank house, 1 story, 36 x 90 ft. boiler and pump house and 1 story, 60 x 120 ft. garage, rein.-con. and steel, rein.-con. flooring, concrete foundations, here, to H. D. Best, 175 5th Ave., New York City.

★**N. J., Newark**—Peerless Baking Co., 713 South 14th St., let contract building 2 story, 50 x 100 ft. factory and power house, rein.-con., on Nye Ave. and Clinton Pl., to United Fireproofing Co., 8 West 40th St., New York City.

★**Pa., Phila.**—See "Buildings."

★**S. C., Conestee** (Greenville P. O.)—Conestee Mills let contract building 2 story, 100 x 200 ft. concrete and steel warehouse, rein.-con. flooring, concrete foundation, to H. D. Best, 175 5th Ave., New York City.

★**Ga., LaGrange**—Swift Co., U. S. Yards, Chicago, Ill., let contract building 1 story, 200 x 350 ft., acidulating plant, concrete, brick and steel, concrete foundation, to G. Johnson & Son, c/o owners. About $250,000.

★**Tenn., Memphis**—Iten Biscuit Co., 1202-24 Capitol Ave., Omaha, Neb., let contract building 8 story, 290 x 450 ft., rein.-con. factory, rein.-con. flooring, on Florida St., here, to Alexander Constr. Co., 388 North Front St. About $500,000. Noted Jan. 8.

★**O., Cleveland**—Eaton Axle Co., 10307 Euclid Ave., let contract building 1 story, 62 x 123 ft., heat treating plant and boiler room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 831 East 140th St., to Lundoff-Bicknell Co., 5716 Euclid Ave. About $50,000.

★**Ill., Mt. Vernon**—Swift & Co., U. S. Yards, Chicago, let contract building 2 story, brick and concrete warehouse, rein.-con. flooring, concrete foundation, here, to T. Stark & Co., Cedar Rapids, Ia. About $165,000.

★**Wis., Milwaukee**—Ogden Garage Co., 523 26th Ave., let contract building 1 story, 100 x 160 ft., brick, concrete and steel garage and repair shop, concrete flooring and foundation, on Ogden Ave., to Hansen Constr. Co., 425 East Water St. About $60,000.

★**Ia., Muscatine**—Muscatine Packing Co. let general contract constructing packing plant, to include 4 story, 54 x 64 ft. fertilizer building, 1 story, 50 x 100 ft. power house, 5 story, 100 x 200 ft. storage building, 5 story, 70 x 85 ft. abbatoir and 5 story, 50 x 100 ft. office, stock pen and manufacturing building, brick, rein.-con. and steel, to Federation Constr. Co., 532 Davidson Bldg., Sioux City. About $1,000,000.

Buildings

PROPOSED WORK

Me., Augusta—Hospital—H. S. Coombs, archt., 11 Lisbon St., Lewiston, soon lets contract building 3 story, brick and steel, concrete foundation, at State Hospital, here. About $100,000.

N. H., Manchester—Theatre—Desmond & Lord, archts., 15 Beacon St., Boston, soon let contract building 2 story, 100 x 160 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Amherst St., for Capitol Amusement Co. About $200,000.

Mass., Allston (Boston P. O.) — Sales — Tuck & Gilman, archts. and engrs., 34 School St., Boston, soon let contract building 2 story, 75 x 200 ft., rein.con. and steel, rein.-con. flooring, concrete foundation, on Fordham Rd., for Tuck, Gilman & Sneider, c/o architects. About $175,000.

Mass., Amherst—Club—Phi Kappa Psi Fraternity, c/o Putnam & Cox, archts., 114 State St., Boston, having plans prepared for large brick, concrete and steel, on campus.

Mass., Boston—Bathhouse, etc.—Park and Recreation Dept. soon receives bids building 1 story, 106 x 120 ft., bathhouse and headhouse, at Marine Park. About $150,000. Haven & Hoyt, 220 Devonshire St., archts. Noted June 24.

Mass., Boston—Club—Boston & Maine R.R., North Sta., soon lets contract building 6 story, 125 x 135 ft., brick and rein.-con., rein.-con flooring, concrete foundation. About $500,000. Private plans. Noted April 15.

Mass. ,Boston—Theatre—Mowl & Rand, archts., 50 Bromfield St., soon let contract converting store and office building on Washington and Essex Sts., into theatre, brick, concrete and steel, rein.-con. flooring, for Washington-Essex Bldg. Trustees, 723 Scollay Bldg. About $1,500,000. Noted April 8.

Mass., Brookline (Boston P. O.)—Hospital—H. F. Kellogg, archt., 93 Federal St., Boston, soon lets contract building 3 story, 80 x 130 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Pond Ave., for Hospital Corp., c/o architect. About $150,000. Noted May 13.

Mass., Greenfield—Recreation—Greenfield Tap & Die Corp. soon lets contract building 3 story, brick and concrete, concrete foundation. About $100,000. Harris & Richards, Drexel Bldg., Phila., archts.

Mass., Leominster—Hospital—Kendall, Taylor & Co., archts., 93 Federal St., Bos-

Buildings (Continued)

ton soon let contract building 3 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on North Main St., for Leominster Hospital. About $150,000. Noted May 27.

Mass., Springfield — Church — Emanuel Baptist Society, 33 Lyman St., plans to build brick and stone, on White St. and Sumner Ave. About $150,000. W. E. Truesdell, chn. Architect not selected.

Mass., Worcester—Housing—H. B. Peek Co., 1041 Little Bldg., Boston, having plans prepared by McLaughlin & Burr, archts., 88 Tremont St., Boston, for 2 story, brick and frame houses for workmen, concrete foundations, here. About $1,500,000.

Conn., Waterbury—Church—O'Connell & Shaw, archts., 18 Boylston St., Boston, soon let contract building 1 story, brick and steel, concrete or rock foundation, on Southmayo Rd., for St. Peter and Paul Roman Catholic Society, 78 Scoville St. About $100,000. T. P. Mulcahy, pastor. Noted May 6.

Conn., Westville (New Haven P. O.)—Church—A. W. Boylan, archt., 185 Church St., New Haven, soon lets contract building 1 story, stone and steel, concrete foundation, on Marvel Rd. and West Elm St., for St. James Church Society. J. F. Sexton, pastor.

N. J., New Brunswick—Theatre—H. Rosensohn, archt., 188 Market St., Newark, receives bids about July 20, building 1 story, 98 x 230 ft., brick and terra cotta, for A. Shusterman, c/o architect. Cost to exceed $100,000. Noted June 10.

Pa., Altoona — Gymnasium — Altoona Gymnasium Co. receives bids in August, building 2 story, 80 x 130 ft., limestone, granite and brick, rock foundation, on Lexington Ave. and 9th St. About $200,000. E. C. Broomer, pres. Jallade, Lindsay & Warren, 37 Liberty St., New York City, archts.

D. C., Washington — Hospital — Dist. Comrs. soon receive bids building 2 story, 300 x 400 ft. Psychopathic Ward of Gallinger Hospital, brick, concrete and stone.

N. C., Greensboro—Synagogue—H. Cone, chn. Bldg. Com., Proximity Mills, and others having plans prepared for synagogue on Waiman St. About $100,000. Architect's name withheld.

Ala., Birmingham — Fire Station — City opens bids about July 22, building 2 story, 50 x 165 ft., on 6th Ave. between 19th and 20th Sts. About $100,000. D. O. Whilldin, Title Bldg., archt.

O., Cleveland—Bank and Office—Citizens Savings & Trust Co., East 9th St. and Euclid Ave., having plans prepared by Walker & Weeks, archts., 1900 Euclid Ave., for 10 story, 80 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 101st St. and Euclid Ave. About $500,000. A. Smith, vice-pres.

O., Cleveland — Commercial — Colonade Co., c/o Howell & Thomas, archts., 4500 Euclid Ave., soon lets contract building 2 story, 69 x 182 ft., brick, steel and terra cotta, brick foundation, on East 107th St. and Euclid Ave. About $100,000.

Mich., Port Huron—City Hall—City and St. Clair c/o A. E. Stevenson, plans to build 3 story, rein.-con. and brick addition, rein.-con. flooring, concrete foundation, on Huron Ave. About $320,000. Architect not selected.

Ill., Chicago—Temple—Chicago Northern Masonic Assn., c/o F. M. Glennon, 626 South State St., had plans prepared by Hyde & Brown, archts., 8 South Dearborn St., for 2 story, 150 x 150 ft. tile, brick and terra cotta, concrete foundation, on Winthrop Ave. and Argyle St. About $300,000.

Ill., Chicago—Theatre—M. Goldberg, 5236 Harper Ave., having plans prepared by Z. E. Smith, archt., 305 East 55th St., altering and building 1 story, 135 x 150 ft. rein.-con. and brick addition, rein.-con. flooring, concrete foundation. About $350,000.

Wis., Fond du Lac—Sanatorium—Fond du Lac Co., (Fond du Lac) Dodge Co., (Juneau) and Washington Co., (West Bend) having plans prepared by J. E. Hennen, archt., 74 South Main St., for tri-county sanatorium, here. About $300,000.

Ia., Ottumwa—High School—Bd. Educ. had plans prepared by Croft & Boerner, archts., 833 Palace Bldg., Minneapolis, and receives bids about Oct. 15, building 3 story, rein.-con. and brick high school, to include study room, laboratories, etc. About $700,000. J. A. Wagner, secy. Noted Feb. 12.

Ia., Webster City — Hotel and Stores — Webster City Stock Co. having plans prepared by Proudfoot, Bird & Rawson, archts., 810 Hubbell Bldg., Des Moines, for 6 story, brick, rein.-con. and steel. About $300,000. N. Teget, secy.

Minn., Minneapolis—Church—First Methodist Episcopal Church, had plans prepared by O. N. Newstrom and M. C. Linquist, archts., 917 Andrus Bldg., for 2 story, 66 x 105 ft. rein.-con., brick and tile on 12th Ave. S. E. and 4th St. About $100,000. I. R. Beiler, 906 South East 5th St., pastor.

Minn., Minneapolis — High School — Bd. Educ. having plans prepared by E. H. Enger, archt., c/o Bd. Educ., for 3 story brick, rein.-con. and stone, on 30th Ave. N., and Emerson Ave. About $600,000.

Minn., Minneapolis—School—Bd. Educ. opens bids about Aug. 1, building 2 story, 85 x 100 ft., brick and tile, on 46th St. between 4th and 5th Aves. S. About $130,000. E. H. Enger, c/o Bd. Educ., archt.

Minn., Renville—High and Grade School—Bd. Educ. receives bids about Aug. 15, building 2 story, 146 x 273 ft. rein.-con. and brick. About $280,000. Croft & Boerner, 833 Palace Bldg., Minneapolis, archts.

Neb., Lincoln—Capitol—State Legislature having sketches made by B. G. Goodhue, archt. and engr., 2 West 47th St., New York City, for 5 or 6 story brick, steel and stone, concrete foundation. About $7,000,000.

BIDS DESIRED

Conn., Wallingford—Armory—Until July 24, by Connecticut Military Emergency Bd., building 3 story, 38 x 75 ft. armory and 1 story, 75 x 150 ft. drill shed, brick, concrete and steel, rein.-con. flooring, concrete foundations, on North Main St., here. About $100,000. W. P. Crabtree, 272 Main St., New Britain, archt. Noted July 8.

Conn., West Hartford—Church—E. M. Stone, archt., 327 Trumbull St., Hartford, receiving bids building 1 story, brick and steel, concrete foundation, on Boulevard and Lockwood Terrace, for Swedish Methodist Episcopal Society. About $100,000. E. W. Chellgre, pastor. Noted May 20.

N. J., Toms River—Jail—Until July 27, by Bd. Freeholders Ocean Co., building jail. D. O. Parker, clk.; advertised in this issue.

Pa., Jeannette—High School—Until July 26, by Bd. Educ., building 2 story, 125 x 225 ft., brick and steel, rein.-con. flooring. About $200,000. W. J. Peoples, Monongahela Bank Bldg., Pittsburgh, archt.

Pa., Pittsburgh—Office—Philadelphia Co., 435 6th St., receiving bids building 4 and 5 story, 60 x 141 ft. addition, brick, steel and terra cotta. About $200,000. Private plans.

O., Cleveland—School—Until July 20, by Church of the Holy Family, c/o J. F. Kresina, 12900 Angelus Ave., building 3 story, 16 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 131st St. and Chapelside Ave. About $100,000. W. Koehl, Park Bldg., archt.

O., Youngstown—Hospital—Until July 18, by H. Church, city solicitor, building 3 story municipal hospital, on Homestead and Indianola Aves. About $250,000. C. F. Owsley, Mahoning Bank Bldg., archt.

Ill., Chicago—Temple—Until Aug. 10, by Hyde & Brown, archts., 8 South Dearborn St., building 3 story, 125 x 200 ft. rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, on Cottage Grove Ave. and 61st St., for Midway Masonic Temple Assn., c/o architects. About $750,000.

Ia., McCallsburg—School—Until Aug. 3, by Bd. Educ., building 2 story, brick, rein.-con. and steel. About $130,000. W. H. Reid, secy. W. L. Pedicord, Iowa Falls, archt.

Kan., Liberal—High School—Until July 19, by Bd. Educ., building 3 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $170,000. Smith, Beattie & Co., Nelson Bldg., Hutchinson, archts. Noted Feb. 26.

N. S., Halifax—Hospital—Until July 29, by Com. of Anti-Tuberculosis League, building 3 story, 80 x 146 ft., with 90 ft. wings, brick, rein.-con. flooring, concrete foundation, on Morris St. About $150,000. H. E. Gates, Halifax, archt.

N. S., North Sydney—Hall—Until July 23, by M. McLean, town clk., building 2½ story, 35 x 50 ft., concrete and brick, rein.-con. flooring on Main St. About $122,000. J. L. Northam, Sydney, archt.

Ont., Pembroke—School—Until July 19, by Bd. Educ., building 8 room, rein.-con. and brick, rein.-con. flooring, in East Ward. About $175,000. W. C. Keighley, Grand Trunk Bldg., archt.

Man., Miniota—School—Until July 31, by School Trustees, building 3 story, concrete, brick and steel. About $110,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Portland**—High School—City let contract building 3 story, brick addition, rein.-con. flooring, on Cumberland St., to F. W. Cunningham & Son, 430 Congress St. About $155,000.

Mass., Belchertown—Dormitory, etc.—Commonwealth of Massachusetts, Comm. of Mental Diseases, 36 State House, Boston, received bids constructing 2 story, 90 x 1[illegible] ft. dormitory and 2 story custodial building, brick and rein.-con., rein-con. flooring, concrete foundations, at State Hospital, here (general contract), from M. J. O'Connor, 86 Main St., Northampton, $[illegible]65,000; heating, from Holyoke Valves & Hydrant Co., Race St., Holyoke, $21,483; plumbing, from E. C. Kelley, 195 Center St., Roxbury, $20,505. Noted June 24.

★**Mass., Boston**—Auditorium—Now Boston Arena Co., c/o Funk & Wilcox, archts., 294 Washington St., let contract building 1 and 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on St. Botolph St., to W. M. Bailey Co., 88 Broad St. About $800,000. Noted June 17.

★**Mass., Brookline**—Sales, etc.—C. Allbright, archt., 6 Beacon St., Boston, let contract to F. J. Van Etten Co., 153 Milk St., Boston, constructing 2 story, 100 x 270 ft., brick and limestone sales building and garage, rein.-con. flooring, concrete foundation, on Commonwealth Ave. and St. Paul St., here, for D. Cerussi, 15 Exchange St., Boston. About $200,000. Noted July 1.

★**Mass., Clinton** — Housing — Lancaster Mills let contract building several 2 story, timber houses for workmen, concrete foundations, to General Bldg. Co., 522 Harrison Ave., Boston. About $125,000. Noted May 13.

★**Mass., Webster**—Library—Trustees C. C. Corbett Library let contract building 1 story, brick, steel and stone, concrete foundation, on Main St., to F. G. Fearon Co., 280 Madison Ave., New York City. About $100,000. Noted May 27.

★**Conn., Bridgeport**—Theatres—S. Z. Poli Co., 24 Church St., New Haven, will build two 221 x 223 ft., brick, concrete and steel, rein.-con. flooring, concrete foundations, on Main, Congress and Arch Sts., here. About $1,000,000. Work will be done by day labor. Noted June 10.

★**Conn., Naugatuck**—Jalade & Lindsey, archts. and engrs., 37 Liberty St., New York City, let contract to Tidewater Bldg. Co., 16 East 33rd St., New York City, constructing 3 story, brick, concrete, steel and stone building, rein.-con. flooring, brick foundation, on Church St., for Y. M. C. A., Rockwell Ave. About $225,000. Noted May 13.

★**N. Y., Buffalo**—Community House—Lafayette Ave. Presbyterian Church, Lafayette Ave. and Howard St. let contract building 3 story, brick, concrete ad steel, to R. E. Williams, Iroquois Bldg. About $100,000.

★**N. Y., Ossining**—Seminary — Catholic Foreign Mission Society - Pines Bridge Rd., let contract building 4 story, brick, steel and stone, brick foundation, here, to W. H. Fissel, 1328 Bway., New York City. About $100,000.

★**Pa., Allentown** — Bank — Merchant's Natl. Bank, South Centre Sq., let contract building 1 story, 50 x 100 ft., brick and stone, brick foundation, on 7th and Hamilton Sts., to Griswold Co., 101 Park Ave., New York City. About $100,000.

★**Pa., Phila.**—Office, etc.—W. F. Read & Sons, 209 Chestnut St., let contract constructing 4 story, 50 x 75 ft. office building and warehouse, rein.-con. and brick, on Snyder and Saminger Sts., to W. Newberg, Otis Bldg. About $100,000.

★**Pa., Phila.**—Sales and Service—Diesinger Motors Co., 1827 Chestnut St. let contract building 2 story, 70 x 120 ft., concrete and stone, on 22nd and Chestnut Sts., to J. Schnabel, Denckla Bldg. Noted June 3.

★**Md., Baltimore**—Theatre—L. H. Homan, c/o Palmore & Homan, 424 East Lexington St., let contract building 1 and 2 story, 80 x 175 ft., concrete and brick, concrete foundation, on Harford Ave. About $100,000.

D. C., Washington—School—Dist. Comrs. received bids building addition to school in Petworth, from P. F. Gormley, Union Trust Bldg., $219,481; F. L. Wagner, 1413 H St. N. W., $247,266; W. E. Mooney, Evans Bldg., $226,207.

★**N. C., Durham**—Office—North Carolina Mutual Life Insurance Co. let contract building 6 story, to H. L. Smith, Durham. About $200,000; cost plus percentage basis.

★**Ala., Mobile**—Office—Van Antwerp Drug Co., Van Antwerp Bldg., let contract razing old buildings and constructing 15 story, 7[illegible] x 150 ft., brick, mass and rein.-con., Indiana limestone, terra cotta and steel, rein.-con. flooring, on Dauphin and Concention Sts., to Owens Constr. Co., South Water St. About $500,000.

Buildings (Continued)

★**O., Alliance**—High School—Bd. Educ. let general contract building 2 wings of new high school, to Kratt & Sons, Lorain, $150,000; heating and plumbing, to G. W. Vult, Arch Ave. and Columbia St., $17,800.

★**Ill., Belleville**—Theatre and Office—Arcade Theatre Co. let contract building 3 story, 80 x 175 ft. concrete, brick and steel, on Main and High Sts., to Mullen Bldg. Corp., Belleville. About $250,000.

★**Minn., St. Paul**—Hospital—City and Ramsey Co. let contract constructing addition to administration building, also 3 story children's building, on Jefferson Ave. and Colborne St., to F. Norlander, 408 Metropolitan Bank Bldg. About $150,000. Noted April 8.

★**Kan., Wichita**—Bank—First Natl. Bank let contract building 12 story, 94 x 135 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to G. H. Siedhoff Constr. Co., 121 North Market St. About $1,500,000; cost plus percentage basis.

★**Neb., Lincoln**—Bd. Educ. let contract building Prescott School, 2 story, 140 x 225 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Oleson Const. Co., Lincoln. About $375,000.

★**Mo., St. Louis**—Bank—1st Natl. Bank, Bway. and Locust St., let general contract building 6 story, 50 x 150 ft., rein.-con., brick and steel, concrete flooring, at 307-9 Bway., to Westlake Constr. Co., 615 Locust St. About $250,000.

★**Mo., St. Louis**—Theatre—Audrey Realty Co., Wainwright Bldg., let contract building 2 story, 35 x 185 ft., rein.-con. and brick, on 6th and Chestnut Sts., to Woerman Constr. Co., Syndicate Trust Bldg. About $100,000.

★**Ont., London**—Office—London & Western Trusts Co., 382 Richmond St., let contract building 4 story, 80 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to W. F. Sparling Co., Bay St., Toronto. About $100,000.

★**Ont., London**—School—Bd. Educ. let contract building 2 story, 75 x 90 ft., brick, stone foundation, on Hamilton Rd., to J. Futherbough, 272 Regent St. About $100,000.

Federal Government Work

Order 166—Bureau Yards & Docks, Navy Dept., Wash., D. C.—It is directed that hereafter no estimated cost to be given or published on prospective projects, either prior to or during period of advertisement.

PROPOSED WORK

N. H., Portsmouth—Boiler and Stokers—Spec. 4124—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids removing and re-erecting, here; $10 deposit required for plans and spec. Noted Jan. 15.

D. C., Wash.—Boiler and Accessories—Spec. 4242—Bureau Yards & Docks, Navy Dept., soon receives bids building, here; $10 deposit required for plans and spec. Noted June 24.

Va., Hampton Roads—Paint and Oil Storehouse—Spec. 4221—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids building, here; $10 deposit required for plans and spec. Noted June 10.

Neb., Buffalo—Irrigation—Federal Government plans to make surveys for Kearney-North Platte Irrigation Project. About $8,000,000. J. M. Noff, Lexington, interested.

Mo., St. Louis—Earthwork—Mississippi River Comn., 1511 International Life Bldg., received no bids June 25, building 175,000 cu.yd. earthwork by hydraulic method, in Sny Island Levee D. D., Ill. Noted May 27.

Cal., Mare Island—Heating System—Spec. 4189—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids installing, at structural shop, here; $10 deposit required for plans and spec. Noted May 13.

Cal., San Diego—Storehouse—Spec. 4157—Bureau Yards & Docks, Navy Dept., Wash., D. C., received no bids July 7, building Marine Barracks, here. Noted June 24.

BIDS DESIRED

Me., Augusta—Remodeling Post Office and Court House—Until Aug. 4, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

D. C., Wash.—Electric Traveling Cranes—Spec. 4239—Until July 28, by Bureau Yards & Docks, Navy Dept., furnishing and installing over shipbuilding slips, Philadelphia, New York and Norfolk, Va., Navy Yards, $10 deposit required for plans and spec.; advertised in this issue. Noted June 24.

N. Y., New York—Gasoline Storage Shed—Spec. 4224—Until July 21, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here; $10 deposit required for plans and spec. Noted June 10.

Va., Hampton Roads—Electric Underground Distributing System—Spec. 4240—Until Aug. 4, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing, here; $10 deposit required for plans and spec.; advertised in this issue. Noted June 24.

Neb., Omaha—Remodeling Post Office—Until July 23, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

Tex., Del Rio—Sewage Ejector—Until July 22, by Treas. Dept., Wash., D. C., installing in U. S. Post Office and Courthouse, here. J. A. Wetmore, superv. archt.

Idaho, Caldwell—Canal—Until Aug. 24, by U. S. Recl. Serv., Boise, building 16 mi. main canal, near here, involving 228,000 cu.yd. excav. M. Bien, acting dir.; advertised in this issue.

Ariz., Florence—Diversion Dam—Until Aug. 16, at office of H. V. Clotts, superv. engr., U. S. Indian Serv., 528 Federal Bldg., Los Angeles, building rein.-con. on Gila River, 10 mi. from here; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. Y., Buffalo**—Excavating—U. S. Engr. Office, Federal Bldg., let contract excavating in Niagara River, Mich., involving 422,050 cu.yd. sand gravel and boulders and 100,000 cu.yd. overcasting material, to Dunbar & Sullivan Dredging Co., 2211 Dime Bank Bldg., Detroit, $245,245.

D. C., Wash.—Altering Building—Treas. Dept. received bids July 6, from W. E. Mooney, Evans Bldg., (1) $35,568 (90 days) (2) $37,000 (95 days), (3) $1,173 (90 days); Skinker & Garrett, 1416 F St., N. W., (1) $30,287 (60 days), (3) $17,000 (60 days); J. Trout Constr. Co., Wash., (2) $18,934 (120 days), (3) $19,803; H. C. Ball Constr. Co., Wash., (1) $22,497 (60 days), (2) $23,297 (65 days), (3) $110 (60 days). Noted July 1.

D. C., Wash.—Quarters—Spec. 4195—Bureau Yards & Docks, Navy Dept., received bids June 16, building at Lighthouse Depot Grounds, at Buffalo, Detroit and Milwaukee: (1) work complete, from W. F. Martens, Cutler Bldg., Rochester, N. Y., (1) $49,000 (120 days), (2), $12,995 (110 days), (3) $14,885 (120 days), (4) $13,855 (110 days), (5) $11,880 (100 days), (1a) $48,000 (100 days), (2a) $12,795 (108 days), (3a) $14,685 (118 days), (4a) $13,655 (108 days), (5a) $11,680 (100 days); Inca Constr. Corp., Marine Trust Bldg., Buffalo, (5) $10,500 (120 days); King Lumber Co., Charlottesville, Va., (1) $104,000, (2) $26,000, (3) (4) and (5) $26,000 each, (1a) $104,000, (2a) (3a) (4a) and (5a) $26,000 each, all (120 days). Noted June 10 under "Buffalo" and June 24 under "Milwaukee and Detroit".

★**D. C., Wash.**—Watertight Lighting Fixtures—U. S. Engr. Office, War Dept., let contract installing, to F. H. Lovell & Co.,

Va., Hampton Roads—Sewers and Watermains—Spec. 4178—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 7, laying sewers, drains and watermains at Naval Operating Base, here, (1) work complete, from B. Pizzimento, Hyattsville, Md., (1) $47,775 (140 days), (2) $100, (3) $5, (4) $10, (5) $20; Williams Curriden Contg. Co., Norfolk, (1) $48,000 (120 days), (2) $72, (3) $4, (4 $1, (5) $1; H. E. Crook Co., 28 Light St., Baltimore, Md., (1) 59,860 (140 days), (2) $190, (3) $4.50, (4) $6.25, (5) $18.75, (6) $7,800, (7) $4,220. Noted June 24.

★**Va., Langley Field**—Various Buildings—Constr. Div., Wash., D. C., let contract constructing here, to P. F. Gormley, Union Trust Bldg., Wash., D. C. About $600,000.

Va., Quantico—Incinerator—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 7, building at Marine Barracks, here, (1) work complete, from McLean Constr. Co., 1415 Fidelity Bldg., Baltimore, Md., (1) $108,755 (210 days), (1a) $28,345, (1b) $23,580, (1c) $24,850, (1d) $16,200, (1e) $2,945, (1f) $1,365, (1g) $6,585, (1h) $4,885, (2) $1,000, deduct $800, (3) add $500; King Lumber Co., Charlottesville, (1) $112,428, (1a) $23,148, (1b) $26,400, (1c) $26,400, (1d) $18,584, (1e) $4,230, (1f) $1,278, (1g) $8,906, (1h) $3,482, (2) deduct $800, (3) add $500; Hughes Foulkrod Co., 1406 Commonwealth Bldg., Phila., (1a) $29,400, (1b) $34,320, (1c) $31,121, (1d) $12,487, (1e) $4,457, (1f) $1,242, (1g) $4,280, (1h) $3,724, (2) $806, (3) $1,670. Noted June 24.

Wash., Seattle—Dredging—U. S. Engr. Office, Burke Bldg., received only bid dredging harbor at Port Gamble, involving 100,000 cu.yd. earth fill, from Puget Sound Bridge & Dredging Co., Central Bldg., $32,500. Noted Jan. 8.

Cal., San Diego—Refrigerating Plant Equipment—Spec. 4193—Bureau Yards & Docks, Navy Dept., Wash., D. C., received only bid June 30, furnishing and installing at Naval Base, Marine Barracks, here, (1) work complete, from Kroeschell Bros. Co., 460 North Ferry St., Chicago, (1) no bid, (2) add $85, (3) deduct $575, (5) $31,350. Noted June 24.

Miscellaneous

PROPOSED WORK

Excavators—Syracuse, N. Y.—Onondaga Co. plans to purchase 2 Keystone excavators. About $13,000. F. N. Wood, purch. agt.

Va., Charlottesville—See "Streets and Roads."

Electric Power Line—Breeze, Ill.—City plans to build 4 mi. electric power line from here to Ariston including transformer stations, poles and wires. Fuller & Beard, Chemical Bldg., St. Louis, Mo., engrs.

Dams—Polson, Mont.—Rocky Mountain Power Co. Butte, plans to build 5 dams in Flathead River between northeast corner of Bison Range and point where river enters lake, near there.

Dike—St. Louis, Mo.—Bd. Pub. Serv. received no bids June 22, building Homers Dike at Chain of Rocks Pumping Sta., 1,575 ft. long, rock and timber. E. E. Wall, City Hall, engr. Noted May 13.

Incline Skip Hoist, Crusher, Bunker, etc.—Spiketon, Wash.—Pierce County Coal Co. preparing plans for new incline skip hoist tipple, screens and crusher in unit 1, shaking sizing screen and washers in unit 2, and track bunkers in unit 3. G. H. Sharpe, genl. mgr.

BIDS DESIRED

Highway Materials—New York, N. Y.—Until July 19, by Bd. Purchase, 526 Municipal Bldg., furnishing and delivering highway materials to Dept. of Parks, Manhattan and Richmond Boros. G. A. Whalen, comr. Plant and Structures.

Pumps—Summit, N. J.—Until July 20, by Common Council, furnishing two 2,000,000 gal. and one 1,000,000 gal. centrifulgal sewage pumps with motors. F. C. Kentz, clk.; advertised in this issue.

Curbstone—Montreal, Que.—Until July 20, by Administrative Comn., furnishing 14,721 lin.ft. straight lime stone, 1,330 lin.ft. curve granite, and 1,955 lin.ft. straight granite curbstone.

Incinerator—Chatham, Ont.—Until July 25, by city building incinerator. About $40,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Dams—Pittsfield, N. H.**—Haven & Crosby, engrs., 40 Court St., Boston, let contract to H. P. Cummings Constr. Co., Ware, Mass., building 2 rein.-con. dams, 85 ft. ling, 13 ft. high and 160 ft. long, 21 ft. high. About $30,000. Owner's name withheld.

★**Retaining Wall—Holyoke, Mass.**—Farr Alpaca Co., Jackson St., let contract building 300 ft., rein.-con. retaining wall, to S. M. Green Co., 293 Bridge St., Springfield. About $30,000.

Pumps—Cleveland, O.—City received bids July 2, furnishing and installing two 8,000,000 gal. and one 4,000,000 gal. motor driven vertical centrifugal pumps, etc., from Dravo-Doyle Co., Diamond Bank Bldg., Pittsburgh, Pa., $20,730, J. Skeldon Eng. Co., 242 Water St., Toledo, $27,620. Noted June 24.

Steam Heating and Ventilating System—Cleveland, O.—Bd. Educ., East 6th St. and Rockwell Ave., received bids installing steam heating and ventilating system in Miles Standish School, East 92nd St. and Parkgate Ave., from Weiss Plumbing Co., 1111 Bolivar Rd., $140,688, Poplowsky Plumbing Co., East 40th St. and Central Ave., $152,230.

★**Water Pipe—Detroit, Mich.**—City let contracts to Lynchburg Fdry. Co., People's Natl. Bank Bldg., Lynchburg, Va., furnishing 1,714 tons 8 in. Class "B" c.i. pipe, $131,121, 857 ton 16 in. Class "C," $65,560, 429 tons 24 in. Class "C," $32,389; to Amer. Cast Iron Pipe Co., 38 South Dearborn St., Chicago, Ill., 2,286 tons 8 in. Class "B," $175,108, 1,143 tons 16 in. Class "C," $87,554, 571 tons 24 in. Class "C," $43,168. Noted July 8.

★**Street Lighting System—Green Bay, Wis.**—City let contract furnishing ornamental street lighting system, to E. A. Brown Electric Co., 715 Minnesota St., Kansas City, Kan. About $39,000. Noted April 1.

★**Cleaning Water Mains—St. Louis, Mo.**—City let contract excavating, examining, inspecting and cleaning 250,000 lin.ft. 12-36 in. c.i. water mains, to Natl. Water Main Cleaning Co., 50 Church St., New York City, $74,872. Noted June 3.

OFFICIAL PROPOSALS

Bids: Aug. 5

Construction of Pavement

Fort Myers, Fla.

Sealed proposals directed to Jno. W. Owens, City Clerk of the City of Fort Myers, Fla., will be received at the City Clerk's Office until 5 p.m., Aug. 5, 1920, and publicly opened that same evening at a regular meeting of the City Council, for the grading, furnishing all labor and materials required to construct the following pavements:

Oak St. from the A. C. L. R.R. to W. line of Hendry St., approximately 2,607 sq.yds.

Hendry St. from the S. line of Oak St. to the S. line of First St., approximately 1,156 sq.yds.

Monroe St. from N. line of Oak St. to the N. line of First St., approximately 1,106 sq.yds.

First St. from the east line of Monroe St. to W. line Evans Ave., approximately 16,007 sq.yds., a total of approximately 20,876 sq.yds.

Alternate bids will be received on Cement Concrete, Asphaltic Concrete, Sheet Asphalt, Asphaltic Block, and Vitrified brick. The Contractor may bid on any or all of these different surfaces.

Certified check of $1,500.00 must accompany each bid or group of bids.

Specifications, proposal blanks, form of contract and detailed information concerning the conditions and manner of submitting bids can be obtained by applying to J. A. Davison & Son, Engineers for Fort Myers, Fla.; a deposit of $5.00 will be required for each complete set of specifications sent out; this amount will be refunded upon the return of the specifications properly filled in by actual bidders.

Payments for work done will be made in cash monthly on estimates by the Engineer. No maintenance bond required.

Detailed plans may be seen at the office of the Engineer.

The Mayor and Council reserve the right to reject any or all bids and to award the contract as is deemed to the best interests of the City of Fort Myers.

Bidders will be notified as to results of the letting within 48 hours of the opening of the bids.

Signed: J. A. DAVISON & SON,
Attest: City Engineers.

Bids: July 22.

Road Work

Jamesburg, N. J.

Notice is hereby given that sealed bids will be received by the Board of Chosen Freeholders of Middlesex County, N. J., for the improvement of Jamesburg-Helmetta Road, in the Borough of Jamesburg and Township of Monroe, in the County of Middlesex, with a concrete pavement; estimated amount of surface pavement required is 14,162 square yards, and opened and read in public at the County Record Building, New Brunswick, N. J., on July 22, 1920, at 2:30 p.m.

Drawings, specifications and forms of bid, contract and bond for the proposed work, prepared by Alvin B. Fox, County Engineer, and approved by the State Highway Commission, have been filed in the office of the said Engineer at 175 Smith Street, Perth Amboy, N. J., and of said State Highway Commission, Trenton, N. J., and may be inspected by prospective bidders during business hours. Bidders will be furnished with a copy of the specifications and blue prints of the drawings by the engineer on proper notice and payment of cost of preparation. Bids must be made on the standard proposal forms in the manner designated therein and required by the specifications, must be enclosed in sealed envelopes, bearing the name and address of bidder and name of road on the outside, addressed to the Board of Chosen Freeholders of Middlesex County, N. J., and must be accompanied by a certificate of surety company agreeing to furnish bond and a certified check for not less than $1,000.00, and be delivered at the plae and on the hour above named. The standard proposal form is attached to the specifications, copies of which will be furnished on application to engineer.

By order of the Board of Chosen Freeholders of Middlesex County, New Jersey.

THOMAS J. MULVIHILL, Clerk.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: July 20.

Construction of Barge Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until 12 o'clock noon of Tuesday, July 20, 1920, at which place and hour they will be publicly opened and read, for the construction of a Barge Canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and of the acts amendatory thereof, as follows:

TERMINAL CONTRACT No. 224

For constructing a terminal freighthouse at Mott Haven, Borough of Bronx, New York City.

Contract plans, sheets 1 to 13, inclusive.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., at the canal office, Spaulding's Exchange, Buffalo, N. Y., and at the office of the Superintendent of Public Works, Terminal Warehouse, Pier 6, East River, New York City.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond known as the labor bond, in the sum of ten per cent (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.
Albany, June 16, 1920.

Bids: July 23.

Sale of Water-Works Pump

Trenton, N. J.

Sealed proposals will be received by the Board of Commissioners of the City of Trenton, N. J., at their meeting to be held on July 23, 1920, at 2 p.m., daylight saving time, for the purchase from the City of its 10,000,000 gallon, triple expansion, vertical type, E. P. Allis steam pump, which has become too small for the City.

This pump was placed in operation in 1893 but has acted for the past 12 years only as a reserve unit. It was designed for 110 pounds of steam, pumping against a head of 125 feet. The present head is 155 feet, steam pressure 135 pounds.

The pump is in excellent condition and is offered for sale as it stands. Successful bidder to remove it from its present site within 60 days after the award of the contract by the Board of Commissioners.

Each proposal must be accompanied by a certified check in the sum of $500, drawn upon a reliable national bank or trust company to the order of the City Treasurer, which check shall be forfeited to the City of Trenton as fixed and liquidated damages, and not a penalty, in case the bidder to whom the contract is awarded fails or neglects to enter into contract with the City.

Said Board of Commissioners reserves the right to reject any or all proposals.

LEON D. HIRSCH, City Clerk.

Bids: July 19.

Street Paving, Sewerage and Water-Works

Okeechobee, Fla.

Sealed proposals will be received by the City Council of the City of Okeechobee, Florida, at the office of the City Clerk of the said City, at or before 10 o'clock A.M., on the 19th day of July, A.D. 1920, for the following purposes:

For the construction of approximately ten miles of hard surfaced streets, a system of water works and construction of Sewerage system according to plans and specifications in office of City Clerk. Copies of specifications may be obtained at the office of W. B. Clay, City Engineer.

D. R. McNEILL,
President of Council.
W. W. DUNNICLIFF, City Clerk.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
July 26	Huntington Park (Los Angeles, P. O.), Cal.	July 22
July 28	Pelham Manor, N. Y.	July 22
July 30	Galveston, Tex. Adv. July 8 to 22	July 8

SEWERS

July 29	Detroit, Mich.	July 22
July 30	Dartmouth, N. S.	July 22
July 30	St. George, S. I., N. Y.	July 15
July 30	South Beach, S. I., N. Y. Adv. July 22	July 22
Aug. 2	Pontiac, Mich.	July 1
Aug. 3	Kilbourn, Wis.	July 22
Aug. 5	Pine Island, Minn.	July 22
Aug. 10	St. Louis, Mo.	July 22
Aug. 11	Joliette, Que.	July 22

BRIDGES

July 26	Port Dover, Ont.	July 22
July 27	Romney, W. Va.	July 22
July 28	Vintondale, Pa.	July 15
July 29	Concord, N. H.	July 29
July 29	Herkimer, N. Y. Adv. July 15 and 22.	July 22
July 30	Banff, Alta.	July 8
July 30	Brinson, Ga.	July 22
July 31	Critz, Va.	July 22
Aug. 2	Florence, Ariz. Adv. July 15 and 22	July 15
Aug. 3	Morgan, Ga.	July 15
Aug. 4	Duboistown, Pa.	July 15
Aug. 6	Dublin, Ga.	July 22
Aug. 17	Rochester, N. Y. Adv. July 22.	July 22
Aug. 20	Bristol, Conn.	July 15
Aug. 23	Claxton, Ga.	July 22

STREETS AND ROADS

July 24	Ironton, O.	July 15
July 25	Ohio	July 1
July 25	Swan River, Man.	July 15
July 26	Missouri	July 15
July 26	Indiana	July 15
July 26	Long Island City, N. Y.	July 22
July 26	Pittsburgh, Pa.	July 22
July 26	Framingham, Mass.	July 22
July 26	Miami Beach, Fla.	July 22
July 26	Winfield, W. Va.	July 22
July 27	Montreal, Que.	July 22
July 27	Ft. Madison, Ia.	July 15
July 27	Michigan	July 15
July 27	St. Joseph, Mich.	July 15
July 27	Chester, Pa. Adv. July 22.	July 22
July 28	Stamford, Conn.	July 22
July 28	Bastrop, Tex.	July 22
July 28	Indiana	July 15
July 28	Griffin, Ga.	July 15
July 28	Missouri	July 15
July 28	Freehold, N. J.	July 8
July 28	Portland Me.	July 15
July 28	Huntington, W. Va.	July 22
July 28	Baltimore Md.	July 22
July 29	Bolivar Mo.	July 15
July 29	New York, N. Y.	July 22
July 29	Lake City, Mich.	July 15
July 30	Missouri	July 15
July 30	Clearfield, Pa.	July 15
July 30	Davidson, Sask.	July 8
July 30	Gibbstown, N. J. Adv. July 22.	July 22
July 30	Nova Scotia	July 22
July 30	Michigan	July 22
July 31	Columbus Ind.	July 15
July 31	Missouri	July 22
July 31	New Mexico	July 22
Aug. 2	Covington, Tenn. Adv. July 22.	July 22
Aug. 2	Sabetha, Kan.	July 22
Aug. 2	Baltimore, Md. Adv. July 22.	July 22
Aug. 2	Portland, Ore.	July 22
Aug. 2	Olympia, Wash.	July 22
Aug. 2	Salt Lake City, Utah	July 22
Aug. 2	Greenfield, Ind.	July 22
Aug. 3	Walker, Minn.	July 22
Aug. 3	Columbus, O.	July 22
Aug. 3	Grosse Pointe Park (Detroit P. O.), Mich.	July 15
Aug. 3	South Dakota	July 22
Aug. 4	South Dakota	July 22
Aug. 5	Ft. Myers, Fla.	July 8
Aug. 5	Spencer, W. Va.	July 22
Aug. 6	South Dakota	July 22
Aug. 6	Logan, W. Va.	July 22
Aug. 9	South Pasadena, Cal.	July 22
Aug. 10	St. Louis, Mo.	July 22
Aug. 14	Charleston, W. Va. Adv. July 22.	July 22
Aug. 14	Opelousas, La. Adv. July 15 and 22	July 15
Aug. 20	Amarillo, Tex. Adv. July 22.	July 22

EXCAVATION AND DREDGING

July 27	Le Mars, Ia.	July 8
July 27	Ft. Madison, Ia. Adv. July 15 and 22	July 15
July 31	Madisonville, Ky. Adv. July 22	July 22
Aug. 2	Waterloo, Ia.	July 22
Aug. 3	Sioux City, Ia.	July 22
Aug. 4	Marengo, Ia.	July 8
Aug. 7	Mt. Carmel, Ill.	July 22

INDUSTRIAL WORKS

July 25	Fargo, N. D.	July 8
July 30	East Cleveland (Cleveland P. O.), O.	July 22
July 30	Cleveland, O.	July 22
Aug. 1	Cambridge, Mass.	July 8
Aug. 1	Ft. Williams, Ont.	July 22
Aug. 2	Cleveland, O.	July 22
Aug. 15	Port Arthur, Ont.	July 22
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

July 24	Wallingford, Conn.	July 15
July 25	Liberty Center, Ia.	June 24
July 26	Lankin, N. D.	July 8
July 26	Jeannette, Pa.	July 15
July 26	Savannah, Ga.	July 22
July 26	Waterbury, Conn.	July 22
July 26	Upsala, Minn.	July 22
July 27	Bismarck, N. D.	July 22
July 27	Tomah, Wis.	July 22
July 27	Toms River, N. J. Adv. July 15 and 22	July 15
July 28	Camden, N. J.	July 22
July 28	Lower Chichester (Marcus Hook P. O.), Pa.	July 22
July 29	Montreal, Que.	July 22
July 29	Halifax, N. S.	July 15
July 29	New Bedford Mass.	July 22
July 29	Columbia, Mo.	July 22
July 30	Oakes, N. D.	July 8
July 30	Erie, Pa.	July 22
July 30	East Cleveland (Cleveland, P. O), O.	July 22
July 30	New York, N. Y.	July 22
July 30	New Wilmington, Pa.	July 22
July 31	Miniota, Man.	July 15
Aug. 1	Jamestown, N. D.	July 8
Aug. 1	Anderson, S. C.	July 15
Aug. 1	Baltimore, Md.	July 8
Aug. 2	Charleroi, Pa.	July 22
Aug. 2	Salina, Kan.	June 17
Aug. 2	Media, Pa.	July 8
Aug. 2	Minneapolis, Minn.	July 22
Aug. 2	Sharon, Pa.	July 22
Aug. 2	Oil City, Pa.	July 22
Aug. 2	Zanesville, O.	July 22
Aug. 3	McCallsburg, Ia.	July 15
Aug. 3	Bristol, Conn.	July 22
Aug. 5	Manchester, Conn.	July 22
Aug. 9	Oberon, N. D.	July 8
Aug. 10	Chicago, Ill.	July 15
Aug. 13	Prospect, O.	July 22
Aug. 15	Montreal, Que.	July 22
Aug. 16	Sioux City, Ia.	June 17
Aug. 21	London, Ont.	July 22

FEDERAL GOVERNMENT WORK

July 24	Dredging — New York, N. Y.	June 24
July 26	Road Work—Arizona	July 22
July 27	Surface Drainage System, etc.—Galveston, Tex.	July 8
July 28	Remodeling Post Office and Customhouse—Fall River, Mass.	July 8
July 28	Electric Traveling Cranes—Spec. 4239—Wash., D. C. Adv. July 15 and 22	July 15
July 28	Extending Workroom—Chattanooga, Tenn.	July 8
July 28	Boiler and Piping — Spec. 4242—Wash., D. C.	July 22
July 28	Paint and Oil Storehouse—Spec. 4222—Norfolk, Va.	July 22
July 29	Remodeling Customhouse and Post Office—Astoria, Ore.	July 8
July 30	Widening and Deepening — New Orleans, La. Adv. July 1 to 22	July 1
July 30	Remodeling Post Office—Battle Creek, Mich.	July 8
July 30	Superstructure — Wash., D. C.	July 8
Aug. 2	Lumber, etc.—Wash, D. C.	July 22
Aug. 4	Remodeling Post Office — Augusta, Me.	July 15
Aug. 5	Remodeling Post Office — Jersey City, N. J. Adv. July 22	July 22
Aug. 6	Riprap—Boston, Mass.	July 22
Aug. 11	Temporary Storehouse — Spec. 4229—Pearl Harbor, H. T.	July 8
Aug. 11	Tracks—Spec. 4196—South Boston, Mass.	July 22
Aug. 11	Electric Underground Distributing System — Spec. 4240—Hampton Roads, Va.	July 22
Aug. 11	Boiler and Stokers—Spec. 4124—Portsmouth, N. H.	July 22
Aug. 11	Harbor Development—Spec. 4136—Great Lakes, Ill. Adv. July 15 and 22.	July 22
Aug. 16	Diversion Dam—Florence, Ariz.	July 15
Aug. 18	Pier — Spec. 4165 — Guantanamo Cuba	July 22
Aug. 24	Canal—Caldwell, Idaho	July 15

MISCELLANEOUS

July 23	Steam Pump — Trenton, N. J.	July 8
July 25	Incinerator—Chatham, Ont.	July 15
July 26	Paving Materials—St. Paul, Minn.	July 22
July 26	Equipment—Detroit, Mich.	July 22
July 26	Lake—Pittsburgh, Pa.	July 22
July 29	Dam—Inlet, N. Y.	July 8
July 29	Diesel Engine, Centrifugal Pump, etc.—San Benito, Tex.	July 22
Aug. 5	Wharf—Ottawa, Ont.	July 22
Aug. 7	Pier and Transit Sheds — Vancouver, B. C.	July 1
Aug. 15	Motor Driven Pump, Oil Switches, Air Compressor, etc.—Florence, Wis.	July 22

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Cambridge—City having preliminary plans made for filtration plant. About $600,000. Johnson & Benham, 150 Nassau St., New York City, engrs.

N. Y., Freeport—Village plans to improve waterworks system. About $15,000.

Waterworks (Continued)

N. J., Lambertville—City Com. plans to install water supply system in Cottage Hill section. About $50,000. T. G. Kitchen, 42 North Union St., engr.

Va., Norfolk—City having plans prepared by W. H. Taylor, 3rd, dir. Bd. Pub. Wks., for doubling capacity of present waterworks system. About $4,000,000.

W. Va., Shinnston — City plans to build 100,000 gal. filter plant, pump station and distributing system. About $75,000. Roberts Eng. Co., Charleston, engrs.

O., Wauseon—City retained Clark Eng. Co., engrs., 1047 Spitzer Bldg., Toledo, to make preliminary surveys and submit estimates for obtaining adequate water supply system.

Mich., Bay City—City having preliminary plans prepared by Frazier-Elms-Shael Co., engrs., 1223 illuminating Bldg., Cleveland, O., for improvements to waterworks system to include new filtration plant and reservoir and changing pumping system. About $2,000,000.

Kan., Burns—City election Aug. 23, to vote on $20,000 bonds to enlarge waterworks system.

Kan., Minneola—City voted $45,000 bonds to improve waterworks system. Engineer not selected.

N. S., Halifax — City Council plans to build extension to waterworks system. About $150,000.

BIDS DESIRED

Cal., Huntington Park (Los Angeles P. O.)—Until July 26, by J. T. Duckett, city clk., building waterworks system, involving (a) furnishing and laying 22,000 ft. 6-14 in. steel riveted pipe, together with all specials, (b) furnishing material and building 1,000,000 gal. rein.-con. rectangular reservoir, (c) pumping plants, including 2 deep well pumps and direct connected motors, 2 turbine booster pumps, etc., (d) furnishing labor for building concrete foundations and 2 pump houses, (e) furnishing material and labor for building 50,000 gal. steel tank on 100 ft. steel tower, (f) furnishing 30,000 ft. 4-6 in. casing, 2,000 ft. 2 in. SS pipe, etc. Bonds for $160,000 voted for project. Noted March 4.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. Y., Tonawanda**—City let contract building filtration plant, to Roberts Filtration Co., Phila. About $200,000. Noted April 15.

★**Mich., Dearborn**—Village let contract frunishing labor and material building watermain extensions, involving 7,629 ft. 6-18 in. iron pipe, fire hydrants and valves, to T. C. Brooks & Son, Jackson, $34,113. Noted July 15.

★**Mich., Pontiac**—City let contract furnishing labor for excavating and laying 5,870 ft. 48 in. steel pipe for pressure pipe line to proposed filtration plant, to W. E. Hayes, Jefferson and Bellevue Aves., Detroit, $53,912. Noted July 15.

BRIDGES

★**Kan., Paola**—City let general contract improving waterworks system, to Chanute Constr. Co., Chanute, $46,420; filters, to Pittsburgh Filter Co., 429 Rialto Bldg., Kansas City, Mo., $10,900; pumps, to Worthington Pump & Machine Co., 824 Scarritt Bldg., Kansas City, Mo., $14,690. Noted June 17.

Sewers

PROPOSED WORK

Me., Portland—City plans to build sewers in Ocean Ave. and Read St., cost $35,000; also Fall Brook Branch Sewer, Sect. 4 of East Side Intercepting System, $40,000. E. M. Hunt, city engr.

Pa., Williamsport—B. C. Houck, city clk., received no bids July 14, building sewers in Boyd, Seth and Penn Sts. Work will be probably done by day labor. Noted July 8.

Mich., Monroe—City voted $250,000 bonds to build sewer extensions in southern and western districts, vitr. crock and brick. L. A. Sturn, Monroe, engr.

Wis., Amery—City rejected bids received July 12, building sanitary and storm sewers in various streets. About $37,000. Work will be readvertised. L. P. Wolff, 1000 Guardian Life Bldg., St. Paul, engr. Noted July 1.

Ia., Woodward—City rejected bids building sewage disposal plant. About $25,000. Work postponed. M. I. Evinger, Davidson Bldg., Des Moines, engr.

S. D., Woonsocket—Sanborn Co. plans to expend about $1,000,000 for drainage system. C. Allen, aud.

N. S., Halifax — City Council plans to build sewers in various streets. About $200,000.

Que., Westmount—See "Streets & Roads".

BIDS DESIRED

N. Y., Pelham Manor—Until July 28, by Bd. Trustees, Village Hall, building storm water drains and sanitary sewers; advertised in this issue.

N. Y., S. I., South Beach—Until July 30, by C. D. Van Name, pres. Richmond Boro., St. George, building large system of sewers, here; advertised in this issue

Mich., Detroit—Until July 29, by Dept. Pub. Wks., furnishing labor and material (except iron manhole rings and covers), building 5,723 ft. Coventry Blvd. Arm in Coventry Blvd., Remington and Spence Aves. from Seven Mile Rd. to Winchester Ave., 4-7 ft. cylinder, etc.; 2,196 ft. John R St. Arm in John R. St. from Seven Mile Rd. to Margaret Ave., 4-5 ft. 6 in. cylinder; 2,612 ft. Charleston Ave. Arm from Seven Mile Rd. south to alley south of Savannah Ave., 3-5 ft. cylinder; 184 ft. Harper Ave., Sect. 3, uncompleted portion in Gratiot near Georgia Aves., 5 ft. cylinder; 2,410 ft. Lateral 3,173 between 12th, Hamilton, Burlingame and Webb Aves., 12-24 in.; 1,665 ft. Lateral 3,296 between Cardoni, Russel, Swift and Nevada Aves., 12-24 in.; 2,384 ft. Lateral 3,297 between Russel, Hull, Swift and Nevada Aves. 12-24 in.; 995 ft. Lateral 3,302 between Vinton, Raymond, Georgia and Edgewood Aves., 12-15 in.; 1,080 ft. Lateral 3,304 between Fisher, Crane, Georgia and Marcus Sts., 12-15 in.; furnishing and installing for operation one 8 in. and one 10 in. vertical centrifugal motor driven pumps and one 25-30 hp. motor for 8 in. and one 40 hp. motor for 10 in. pump for Six Mile Rd. Lateral sewers and sizes 24 in. or under to be vitr. crock, other sizes to be brick, concrete, segmental block or rein.-con. pipe. C. W. Hubbell, city engr. Noted July 1 and 15.

Wis., Kilbourn—Until Aug. 3, by A. W. Leuttgerodt, village clk., for 2,795 ft. 2½ x 6 ft. sand rock sewer tunneling, furnishing and laying 818 ft. 10 in. outfall sewer and 1,600 ft. 5-8 in. sewer laterals. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr. Noted June 24.

Minn., Pine Island—Until Aug. 5, by H. H. Billings, city clk., building Dist. Sewer 1, involving 2,969 lin.ft. 8-15 in. pipe, laterals Dist. 1, 13,224 lin.ft. 8-10 in., Dist. Sewer 2, 1,909 lin.ft. 8-15 in. laterals, Dist. 2, 3,441 lin.ft. 8-10 in. About $80,000. J. F. Druar, 514 Globe Bldg., St. Paul, engr. Noted May 27.

N. S., Dartmouth—Until July 30, by A. Elliott, town clk., building 4,800 ft. sewers in Elmwood Ave., Windmill Rd. and Hester St., involving 3,000 cu.yd. earth and 3,800 cu.yd. rock trenching. About $28,800. A. Nichols, supt. of streets.

Que., Joliette—Until Aug. 11, by A. L. Marsolais, secy. treas., building 2,115 ft. 48 in. sewers in main streets. J. A. Martin, 80 Manseau St., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates Award of Contract)

★**Mass., Lynn**—City let contract building vitr. pipe sewer in Market St. to A. Cefalo, 316 Belgrade Ave., Roslindale, $73,651.

★**Conn., New Haven**—City let contract building 6,000 ft. sewer in Westville Sect. to Dwyer & Mannix, 333 Shelton Ave., $31,365.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received lowest 3 bids July 14, building sewer in Chester Pl., Hegeman St., Lott and Hegeman Aves., from Murphy Bros., $26,640; J. Jennings, Belle Harbor, $28,300; A. Ferris, $28,508.

O., Cleveland—City received bid June 24, building 2,600 ft. of 3-7 ft. circular brick sewer in Central Ave. from East 14th to East 30th Sts., from A. Marra, Illuminating Bldg., $80,401. Noted June 17.

Mich., Detroit—City received bids furnishing labor and material building (a) Oakland Ave. Sewer Arm, (b) Lycaste Ave. Sewer, (c) Lateral 3,298, (d) Lateral 3,299, (e) Lateral 3,301, (f) Lateral 3,305, from J. Porath, 23 McGraw Bldg., (a) $133,880; Lennane & McIlvenna, 1205 Book Bldg., (a) $132,960, (b) $89,990; J. Winterbottom, Penobscot Bldg., (a) $120,740; G. R. Cook, 1260 Penobscot Bldg., (b) $87,700; Oakwood Constr. Co., 165 Fort Blvd., (c) $48,213, (d) $54,270; Western Constr. Co., 1208 Ford Bldg., (c) $36,274, (d) $36,635, (f) $2,418; N. Mancini, 580 Concord Ave., (e) $8,200, (f) $8,200; Haynes Constr. Co., 70 Davenport St., (f) $3,280. Noted July 1 and 15.

Mich., Detroit—City received bids trenching, backfilling and laying vitr. crock Lateral Sewer (a) 3,223, (b) 3,292, (c) 3,293, (d) 3,294, from N. Mancinni, 580 Concord Ave., (a) $4,700; Walker & Teetart, Chamber of Commerce Bldg., (a) $3,7[illegible] (d) $17,075; M. Dellomaratoo, 400 Penobscot Bldg., (a) $10,672; W. Blanck & [illegible] 827 Ford Bldg., (b) $61,609 (c) $93,7[illegible] Oakwood Constr. Co., 165 Fort Blvd., [illegible] $81,529, (c) $98,631; Langely & Barr[illegible] 400 Penobscot Bldg., (d) $12,712; Det[illegible] Contg. Co., 827 Ford Bldg., (d) $16,[illegible] Noted June 24.

★**Wis., Waterloo** — Village let contr[illegible] building storm sewers in various streets [illegible] Gray-Robinson Constr. Co., Manitowo[illegible] $62,309. Noted July 1.

★**Ore., Portland** — See "Streets a[illegible] Roads."

Bridges

PROPOSED WORK

Pa., Scranton—City plans to build 100 [illegible] bridge, 30 ft. wide, on Harrison Ave. About $90,000. W. A. Schunk, city engr.

S. C., Orangeburg—Orangeburg Co. plan[illegible] to expend $300,000 to build bridges.

O., Youngstown—City plans to build 3,000 ft. bridge, 100 ft. wide, to replace present Division St. bridge, over Mahoning River, to Briar Hill and Carnegie Steel Companies. About $1,000,000. Cost to be borne by city, railroad and steel companies.

Ind., Terre Haute—Comrs. Vigo Co. plan to build steel or concrete bridge, over Wabash River, at Derkees Ferry. About $294,000. Engineer not selected.

Missouri—State Highway Bd., Monticello, received no bids July 9, building Rodefer Bridge, on La Belle-Lewistown Rd., Federal Aid Project 68, Lewis Co., cost $2,934, also two 20 ft. rein.-con. slab bridges, one 24 ft. rein.-con. deck girder superstructure, one 14 ft. rein.-con. skew slab bridge, 7th St. Bridge, over Canton Drainage Ditch, in Canton, and Balschlett Bridge, over Wyaconda River, all to have 18 ft. clear roadway, on Canton-La Grange Rd., Federal Aid Project 38, $1,495, $2,004, $3,526, $1,709, $11,501 and $15,134 respectively. Noted July 1.

Tex., Cooper—Delta Co. rejected bids received July 2, building rein.-con. and steel bridges on Highway 39. Work will probably be readvertised soon. I. B. Lane, co. judge. Cocke & Nagle, co. engrs. Noted July 15.

N. M., Abiquiu—State Highway Dept., Capitol Bldg., Santa Fe., received no bids July 2, building Chama Bridge, 12 mi. north of here. L. A. Gillett, state highway engr. Noted June 24.

Ont., Brockville—See "Streets and Roads."

Ont., Pt. Stanley—City Council having plans prepared by A. Lamb, engr., Toronto, and soon receives bids building swing bridge. About $70,000.

BIDS DESIRED

N. H., Concord—Until July 29, by State Highway Dept., building 1,000 ft. rein.-con. highway bridge over Merrimac River. F. E. Everett, state highway comr.

N. Y., Herkimer—Until July 29, by Town Bds. of Fairfield and Herkimer and E. J. Beckingham, clk., Herkimer, building rein.-con. arch bridge over West Canada Creek and crossing over tracks of Adirondacks Div. of New York Central R.R., with approaches and appurtenant structures, at Dempster, 3 mi. north of here; advertised in this issue. Noted May 20.

N. Y., Rochester—Until Aug. 17, by E. S. Walsh, supt. bd. pub. wks., Capitol, Albany, completing Court St. approach at barge canal terminal, here; advertised in this issue.

Va., Critz—Until July 31, by State Highway Comn., Richmond, building 67½ ft. concrete bridge, 16 ft. roadway, 2 mi. from here. G. P. Coleman, state highway comr.

W. Va., Romney — Until July 27, by Comrs. Hampshire Co., building steel stiffener truss and new plank floor on 310 ft. suspension bridge over South Branch, Potomac River, between here and Springfield. C. W. Haines, clk.

Ga., Brinson—Until July 30, by Bd. Comrs. Rds. and Revenues, Decatur Co. (Bainbridge) building rein.-con. deck girder bridge over Spring Creek, here, Federal Aid Project 156, State Aid Project S-2-5. Work involves 316 cu.yd. Class "A" and 318.5 cu.yd. Class "B" concrete, 75,492 lb. reinforcing steel, 458.6 sq.yd. Kentucky rock asphalt, 10 cu.yd. rock and 200 cu.yd. wet excav., etc., R. G. Hartfield, clk.

Ga., Claxton—Until Aug. 23, by Bd. Comrs. Rds. and Revenues, Evans Co., building 168 ft. bridge, 16 ft. wide, over Canoochee River, 7 mi. from here. State Aid Project S-1-7, (a) rein.-con. (b) concrete and steel; (a) involves 304.11 cu.yd.

Bridges (Continued)

Class "A" and 150.4 cu.yd. Class "B" concrete, 45,149 lb. reinforcing steel, 130 cu.yd. dry, 100 cu.yd. rock and 160 cu.yd. wet excav., 298 sq.yd. Kentucky rock asphalt. (b) involves 306.8 cu.yd. Class "B" concrete, 16,120 lb. reinforcing steel, 16,120 lb. structural steel, 12,960 ft. lumber, 303 cu.yd. dry and 392 cu.yd. wet excav.

Ga., Dublin—Until Aug. 6, by Bd. Comrs. Rds. and Revenues, Laurens Co., building 8 rein.-con. bridges on Federal Aid Project 143, Route 19 of State Aid System. Work involves 5.62 acres clearing and 0.08 acres grubbing, 828 cu.yd. dry excav., 130,908 lb. reinforcing steel, 1,080.14 cu.yd. Class "A" and 484.28 cu.yd. Class "B" concrete; also 111.4 cu.yd. Class "B" concrete (if necessary). E. N. Parker, div. engr.

Ont., Port Dover—Until July 26, by E. H. Darling, engr., Home Bank Bldg., Hamilton, constructing substructure for 90 ft. bascule bridge on concrete abutments, over Lynne River, 25 ft. wide, for Norfolk Co. (Limcoe), involving 580 cu.yd. rein.-con. About $35,000. Noted July 8.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., New York—Dept. Plant & Structures, Municipal Bldg., received bids July 15, building Eastchester Bridge over Eastchester Creek, from Lupfer, Remick Co., Ellicott Sq., Buffalo, $501,500; P. T. Cox, 154 Nassau St., $513,500. Noted July 8.

★Pa., Scranton—Comrs. Lackawanna Co. let contract building one 20 ft. bridge in Scott Twp., one 90 ft. in Benton Twp., one 160 ft. in Spring Brook Twp. and one 80 ft. in Greenfield Twp., all 18 ft. wide, rein.-con., to E. Weiss, Scranton. About $80,000.

★N. C., Winston-Salem—City and Forsyth Co. let contract building 110 ft. rein.-con. bridge, 34 ft. wide, with two 8 ft. walks, over Peters Creek, to Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn. About $57,700.

★Ia., Clinton—Clinton Co. let contract building 2 concrete and steel truss bridges to J. R. Kane, Charlotte. About $32,000.

★N. B., Hartland—Provincial Government, Fredericton, let contract building 6 concrete piers and 2 abutments, on St. John River, also transferring present wooden spans of old bridge (with wood crib piers) to new substructure, to New Brunswick Contg. and Bldg. Co., St. John. About $188,750.

Streets and Roads

PROPOSED WORK

Massachusetts—State Highway Comn., Boston, rejected only bid received July 6, paving 5,340 ft. state highway, concrete, East Brookfield. About $45,000. Noted July 1.

Mass., Holyoke—City plans to improve Mountain Rd. to Easthampton, waterbound macadam. About $50,000. T. J. McCarthy, city engr.

Mass., Pittsfield—City plans to build concrete sidewalks on various streets. About $25,000.

Pennsylvania—State Highway Dept., Harrisburg, rejected bids June 15 paving Route 46, West Providence and Hopewell Twps., Bedford Co.; Route 65, Shippensville Boro., Clarion Co.; Route 105, Chapman Twp. and Renovo Boro., Clinton Co.; Route 34, East Pennsboro Twp. and Camp Hill Boro., Cumberland Co.; Route 64, Brookville Boro., Jefferson Co.; Route 4, Salem Twp., Luzerne Co.; Route 21, Jackson, Coogan and Lewis Twps., Lycoming Co.; Route 196, Richmond and Tioga Twps., Tioga and Mansfield Boros., Tioga Co.; Route 233, Victory and Sandy Creek Twps., Venango Co.; Route 68, Derry Twp., also Route 118, Arona Boro., Westmoreland Co. Noted July 24.

Pennsylvania—State Highway Dept., Harrisburg, rejected bids June 16, paving Route 46, Hopewell Twp., Bedford Co.; Route 204, Darlington Twp., Darlington Boro., Beaver Co.; East Pennsboro Twp., West Fairview Boro., Cumberland Co.; Route 247, Perry and Jefferson Twps., Fayette Co.; Route 64, Union Twp., Corsica Boro., Jefferson and Clarion Counties; Route 161, Shamokin, Rockfeller and Upper Augusta Twps., Northumberland Co.; Route 21, Hamilton, Bloss and Liberty Twps., Liberty Boro., Tioga Co. and Jackson Twp., Lycoming Co.; Route 176, Gregg Twp., Union Co.; Route 208, Sandy Creek and French Creek Twps., Venango Co. Noted June 24.

Pa., Ebensburg—Bd. Supervs. Adams Twp. asked Cambria Co. to build 1½ mi. brick road from Geistown to South Fork, and 3 mi. brick road from Dunlo to Salix, county to pay ⅔ of cost and twp. ⅓. Bd. Supervs. Croyle Twp. asks approval for building 1 mi. brick or concrete road from Lovett to Schoolhouse 6, 2 mi. from Lambs Bridge to Brownstown Rd. toward Wilmore, and 2 mi. from Summerhill to W. Penn Highway. Total cost, $500,000. H. F. Dorr, Trust Bldg., engr.

W. Va., Madison—Scott Dist. Boone Co. voted $142,000 bonds and soon receives bids grading 12 mi. road. J. P. Blundon, co. engr.

W. Va., Madison—Boone Co. election Aug. 3, to vote on $7,000 bonds to grade road in Peyton Dist. from Peyton to top Dowdy Mountain. E. Nelson, co. clk.

N. C., Rutherfordton—Rutherford Co. plans to build 4 mi. Rutherford-Forest City Rd., concrete. About $150,000. W. S. Fallis, c/o State Highway Comn., Raleigh.

N. C., Winston-Salem—Forsyth Co. plans to rebuild and resurface with tarvia, 6 mi. Louisville Rd., 16 ft. wide, macadam. About $100,000. Work will probably be done by day labor.

S. C., Abbeville—Comrs. Abbeville Co. plan to build 10 mi. Abbeville-Due West Rd.; probably gravel. About $60,000. C. H. Moorefield, Columbia, engr.

S. C., Barnwell—Comrs. Barnwell Co. plan to build 10 mi. Barnwell-Williston Rd.; probably gravel. About $50,000. C. H. Moorefield, Columbia, engr.

S. C., Moncks Corner—Comrs. Berkeley Co. plan to hard surface 5 mi. Murrays Ferry Rd. About $175,000. C. H. Moorefield, Columbia, engr.

Ohio—State Highway Comn., Columbus, received no bids July 16, building roads in following counties:

Belmont Co., Sect. "H-1," Barnesville-Woodsfield Rd., 1.778 mi., grading, constructing drainage structures and paving with bituminous macadam.

Pickaway Co., Sect. "E," Columbus-Washington Ch. Rd., building rein.-con. bridge.

Portage Co., Sect. "T," Ravenna-Warren Rd., 1.99 mi., and other work in same county, grading, constructing bridges and culverts and paving with waterbound macadam.

Trumbull Co., Sect. "H," Niles-Ashtabula Rd., 5.14 mi., grading, constructing bridges and culverts and paving with bituminous macadam.

O., Akron—City plans to resurface with bituminous concrete 3,770 ft. South Maple St., 30 ft. wide, 6,685 ft. Carroll St., 30 ft. wide, 400 ft. Ellwood St., 30 ft., wide, 1,200 ft. Sumner St., 30 ft. wide, 900 ft. South Main St., 84 ft. wide, 450 ft. South Main St., 70 ft. wide, 630 ft. South Main St., 69 ft. wide, 2,050 ft. South Main St., 68 ft. wide, 3,200 ft. South Main St., 40 ft. wide, 3,730 ft. Wooster Ave., 36 ft. wide, 2,900 ft. West Exchange St., 36 ft. wide, 2,615 ft. Forge St., 33 ft. wide, 1,900 ft. Sweitzer Ave., 28 ft. wide, 870 ft. South Bway., 36 ft. wide, 900 ft. South High St., 36 ft. wide, 2,400 ft. Bowery St., 40 ft. wide, 700 ft. Bowery St., 36 ft. wide, 900 ft. North Summit St., 36 ft. wide, 1,200 ft. North Union St., 30 ft. wide, 500 ft. Perkins St., 36 ft. wide, 730 ft. College St., 36 ft. wide, 600 ft. Buchtel Ave., 36 ft. wide, 2,640 ft. Buchtel Ave., 36 ft. wide, 430 ft. Brown Ave., 20 ft. wide, 1,100 ft. Spicer St., 36 ft. wide, 1,600 ft. Spicer St., 28 ft. wide, 470 ft. Kent St., 30 ft. wide, 1,400 ft. Sherman St., 26 ft. wide, 300 ft. Case Ave., 30 ft. wide, 1,260 ft. Pine St., 24 ft. wide, 300 ft. Coburn St., 28 ft. wide, cost, $1,095,000; paving 200 ft. Bechtel Ave., 26 ft wide, 600 ft. Storr Ave., 26 ft wide, 600 ft. Canal St., 24 ft. wide, 800 ft. Dublin St., 26 ft. wide, 2,300 ft. River St., 24 ft. wide, 1,000 ft. Johnston St., 26 ft. wide, 1,300 ft. Sherman St., 26 ft. wide, 1,500 ft. Edison Ave., 26 ft. wide, 500 ft. Kling St., 26 ft. wide, 1,300 ft. Hereford Drive, 26 ft. wide, 800 ft. Wye Drive, 26 ft. wide, 500 ft. Highland Ave., 26 ft. wide, 400 ft. Overlook St., 26 ft. wide, 2,600 ft. Uhler Ave., 26 ft. wide, 600 ft. Weber Ave., 30 ft. wide, 200 ft. Charlotte St., 24 ft. wide, 1,000 ft. Beaver St., 26 ft. wide, 2,400 ft. Cole Ave., 26 ft. wide, 2,000 ft. West North St., 30 ft. wide, 300 ft. Wheeler Lane, 16 ft. wide, 450 ft. Price Pl., 16 ft. wide, 600 ft. Palmyra Ave., 26 ft. wide, 4,100 ft. Newton St., 26 ft. wide, 2,800 ft. Madison Ave., 26 ft. wide, 3,700 ft. Brown St., 30 ft. wide, 2,600 ft. Arlington St., 30 ft. wide, $999,000; grading and laying sidewalks on 900 ft. Crouse St., 50 ft. wide, 900 ft. Corley St., 40 ft. wide, 600 ft. 9th Ave., 45 ft. wide, 2,400 ft. Blaine Ave., 50 ft. wide, 1,600 ft. Thayer St., 45 ft. wide, 800 ft. Keeney Ave., 40 ft. wide, 1,700 ft. Fern St., 50 ft. wide, 1,400 Easter Ave., 50 ft. wide, 1,400 Lookout Ave., 50 ft. wide, 1,200 ft. Montrose Ave., 60 ft. wide, 1,200 ft. Zeller Ave., 60 ft. wide, 1,300 ft. Fairmount Ave., 65 ft. wide, 1,300 ft, Columbia Ave., 65 ft. wide, 1,600 Hickory St., 45 ft. wide, 700 ft. Chitty Ave., 45 ft. wide, 1,300 ft. Avon St., 50 ft. wide, 2,400 ft. Camden Ave., 50 ft. wide, 1,700 ft. Fouse Ave., 60 ft. wide, 2,400 ft. Raymond St., 50 ft. wide, 1,900 ft. Grace Av., 50 ft. wide, 1,200 ft. Liberty St., 50 ft. wide, 2,100 ft. Park Ave., 45 ft. wide, 4,600 ft. Bellows St., 60 ft. wide, 1,500 ft. Girard Ave., 45 ft. wide, 2,100 ft. Sherman St., 50 ft. wide, 1,600 ft. Atwood St., 45 ft. wide, 600 ft. Upland Ave., 45 ft. wide, 1,700 ft. Cole Av., 50 ft. wide, 2,000 ft. Cole and Currie Aves., 45 ft. wide, 1,600 ft. La Croix Ave., 45 ft. wide, 1,400 ft. Taylor St., 50 ft. wide, 1,200 ft. Laurel Ave., 45 ft. wide, 700 ft. Blanche Ave., 45 ft. wide, 500 ft. Fredericka Ave., 45 ft. wide, 1,500 ft. Parkdale Drive, 45 ft. wide, 1,200 ft. Mildred Ave., 40 ft. wide, 1,000 ft. Ruth Ave., 40 ft. wide, 1,900 ft. Aberdeen St., 50 ft. wide, 1,900 ft. Carlysle St., 50 ft. wide, 1,500 ft. Bishop St. 50 ft. wide, 900 ft. Willow St., 50 ft. wide, 1,000 ft. Monroe St., 50 ft. wide, 500 ft. Tyner St., 45 ft. wide, 500 ft. Thornton St., 40 ft. wide, 500 ft. Louisa St., 45 ft. wide, 500 ft. Voris St., 40 ft. wide, 500 ft. Lamparter St., 45 ft. 1,700 ft. Spicer St., 60 ft. wide., 5,200 ft. Lovers Lane, 60 ft. wide, 3,600 ft. Hammel St., 50 ft. wide, 900 ft. Bettie St., 45 ft. wide, 1,300 ft. Clark St., 50 ft. wide, 500 ft. McGowan St., 35 ft wide, 500 ft. Carmichael St., 40 ft. wide, 900 ft. Champlain St., 50 ft. wide, 1,400 Alexander Ave., 50 ft. wide, 3,900 ft. Chittenden St., 50 ft. wide, 900 ft. Lucy St., 45 ft. wide, 900 ft. Robert St., 45 ft. wide, 900 Hart St., 45 ft. wide, 900 ft. Homestead St., 45 ft. wide, 2,400 ft. Fuller St., 50 ft. wide, 1,400 ft. Weeks St., 50 ft. wide, 1,800 ft. Kelly Av., 30-60 ft. wide, 1,300 ft. Duane St., 45 ft. wide, 1,800 ft. 7th Ave. 45 ft. wide, 1,600 ft. McKinley Ave., 40 ft. wide, 1,600 ft. Bittaker St., 50 ft. wide, 900 ft. 6th Ave., 50 ft. wide, $182,000.

Mich., Detroit—City soon receives bids furnishing labor and material for grading and paving with sheet asphalt on 8 in. concrete base, Berea or Medina curbstone, Green Ave. from Calahan to Ferndale Aves., 26 ft. wide, cost $28,830, also Ashland Ave. from Jefferson Ave. to Lots 270-299, 26 ft. wide, $11,860; paving with 1 course concrete, 2 x 6 in. retaining plank, alley between 12th, Wilson, Chicago and Boston Blvds., 20 ft. wide, $7,330. C. W. Hubbell, city engr.

Wisconsin—State Highway Dept., div. office 4, Citizens Natl. Bank Bldg., Grand Rapids, received no bids July 6, improving 5.28 mi. New Lisbon-Necedah Rd., Federal Aid Project 134, Juneau Co. Noted July 1.

Wisconsin—State Highway Dept., Madison rejected bid received July 7 grading and paving Lake to River Rd., Federal Aid Project 140, Iowa Co. Noted June 24.

Wis., Shorewood (Milwaukee P. O.)—Village received no bids July 12, paving Oakland and Maryland Aves. and 2 alleys, concrete. Work will be readvertised. F. W. Ullius, Jr., 1288 Murray Ave., engr. Noted July 8.

Kan., Leavenworth—Leavenworth Co. rejected bids received July 9, grading and building culverts on 4.416 mi. Fort to Fort Highway, Project 13-C, 18 ft. wide; 7.96 mi. Fort to Fort Highway, Federal Aid Project 52, 18 ft. wide. Work will be readvertised. L. C. Clark, Leavenworth, engr. Noted June 24.

Missouri—State Highway Dept., Jefferson City, plans to build 18.67 mi. Old Wire Rd., 24 ft. wide, Pulaski Co., involving 89,350 cu.yd. earth and 100 cu.yd. rock excav., 52,800 sq.yd. gravel surfacing, 200 cu.yd. borrow, one 24 ft. span bridge and culverts; 4 mi. Eureka Springs Rd. (Seligman Special Rd. Dist.), 24 ft. wide, Barry Co., 14,720 cu.yd. earth excav., 21,120 sq.yd. gravel surfacing and culverts; 15.7 mi. Natl. Old Trails Rd. (Calwood-Williamsburg Special Rd. Dist.), 24 ft. wide, Callaway Co., 83,309 lin.ft. grading, 26,400 sq.yd. gravel and 56,909 sq.yd. plain macadam surfacing; 16.76 mi. William Springs-Mountain View Rd., 24 ft. wide, Howell Co., 56,340 cu.yd. earth and 1,500 cu.yd. rock excav., 57,035 sq.yd. gravel surfacing, 1 bridge with two 30 ft. spans and culverts; 9 mi. Joplin-Siloam Springs Rd., (Anderson Special Rd. Dist.), 24 ft. wide, 27,000 cu.yd. earth excav., 22,440 sq.yd. gravel surfacing, 1 bridge with three 20 ft. spans and culverts; 6 mi. New Florence-McKittrick Special Rd. Dist.), 24 ft. wide, Montgomery Co., 24,000 cu.yd. earth excav., 32,288 sq.yd. plain macadam surfacing and culverts; 20 mi. Versailles-Linncreek Rd., 24 ft. wide, Morgan Co., 70,000 cu. yd. excav., 3% rock, 87,120 sq.yd. 9 in. and 18,480 sq.yd. 4 in. gravel surfacing, two 30 ft., one 40 ft., two 24 ft. and one 20 ft. span bridges, and culverts.

Mo., Clayton—St. Louis Co. received no bids June 22, paving 1.392 mi. Mason Rd., including necessary grading, 12 ft. wide, Telford macadam, cost $16,958; 2.123 mi. Olive St. Rd., 21 ft wide, 2 course concrete, $125,805. Noted June 17.

Mo., Monticello—Lewis Co. received no bids July 9, building 5.8 mi. North Canton-

Streets and Roads (Continued)

Monticello Rd., 24 ft. wide, Federal Aid Project 60, cost $80,580; 4.28 mi. La Belle-Monticello Rd., 24 ft. wide, Federal Aid Project 68, $42,636; 8.37 mi. Red Ball Route 24 ft. wide, Federal Aid Project 38, $85,828. Noted July 1.

Mo., St. Louis—City plans to resurface 4,500 ft. Cabanne Ave. from Union to Hamilton Aves., involving 18,000 sq.yd. bituminous macadam, cost $32,700; grade and curb 900 ft. Ester Ave. from Elizabeth to Wilson Aves., $7,250; pave Elizabeth Ave. from Sulpher to Bowman Aves., 3,800 sq. yd. brick, $41,600; miscellaneous alleys, 8,800 sq.yd. concrete and 2,000 sq.yd. brick, $26,000 and $6,750 respectively. W. W. Horner, City Hall, engr.

Tex., Bastrop—Bastrop Co. having plans prepared grading, surfacing and draining 8.8 mi. Highway 20 in Rd. Dist. 7 through Paige, involving 5 acres clearing and grubbing, 21,228 cu.yd. embankment borrowed, 16,029 cu.yd. gravel, 11,703 cu.yd. earth excav., 16,029 cu.yd. gravel 15,853 lb. reinforcing steel, 177.2 cu.yd. Class "C" concrete. About $52,367. A. F. Mitchell, Cameron, co. engr.

Tex., Benjamin—Knox Co. voted $100,000 bonds to build various roads, to include Highways 28 and 30. J. M. Morgan, co. judge.

Tex., Big Springs—Howard Co. voted $300,000 bonds to build roads. State Highway Comn. granted $125,000 Federal aid (not to exceed 50% of cost) for building Highway 1. S. A. Penix, co. judge.

Tex., Canadian—Hemphill Co. rejected bids received July 1, grading, surfacing and draining 14.44 mi. Highway 4, Federal Aid Project 158. Work will be readvertised. W. D. Fisher, co. judge. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs. Noted June 24.

Tex., Coleman—Coleman Co. completed surveys and having plans prepared grading, surfacing and building bridges on 22.5 mi. Highway 23 from here to Callahan Co., 16 ft. wide, involving 10 acres clearing and grubbing, 500 cu.yd. rein.-con., 3,150 lin.ft. concrete pavement, 2 complete low water bridges, 2,000 cu.yd. rock and 112,500 cu. yd. earth excav., etc. About $320,427. W. E. Dickerson, Coleman, co. engr.

Tex., Marlin—Falls Co. having plans prepared grading, draining, gravel surfacing and bituminous topping 7 mi. Highway 2 through Precinct 2, 16 ft. wide, involving 250 cu.yd. concrete, 42,000 cu.yd. earth excav. and 65,700 sq.yd. bituminous macadam. About $148,819. L. Goodrich, co. engr.

Tex., McKinney—Whitewright Dist., Collin Co. voted $60,000 bonds to build various roads. J. B. Crockett, McKinney, co. engr.

Tex., Nacogdoches—Nacogdoches Co. having plans prepared grading, gravel surfacing and draining 23.17 mi. Highway 21 from here to San Augustine Co. line, 16 ft. wide, involving 160 acres clearing and grubbing, 210,000 cu.yd. earth excav., 950 cu.yd. concrete, 46,340 cu.yd. gravel, 100,000 lb. reinforcing and 300,000 lb. fabric steel. About $288,144. Federal Government will appropriate $100,212 toward cost. L. Acker, co. engr.

Tex., San Antonio—Bexar Co. having plans prepared grading, surfacing and draining 6.17 mi. Highway 9, 16 ft. wide, involving 20 acres clearing and grubbing, 7,400 cu.yd. borrow and 7,860 cu.yd. earth excav., 57,955 sq.yd. 1 in. bituminous macadam, 4,930 lb. reinforcing steel, 18,100 cu.yd. gravel, 81.5 cu.yd. Class "A" and 62.9 cu.yd. Class "B" concrete. About $128,716. C. E. Hoff, co. engr.

Tex., Tyler—Smith Co. having plans prepared grading, gravel surfacing and draining 2.45 mi. Highway 37 from Lindale north, Federal Aid Project 197, 16 ft. wide, involving 18,000 cu.yd. earth excav., 273.2 cu.yd. Class "A" concrete, 5,056 cu.yd. gravel, 24,760 lb. structural steel, etc. About $45,116. D. K. Caldwell, Tyler, co. engr.

N. S., Halifax—City Council plans to pave various streets. About $300,000.

N. B., St. John—See "Buildings."

Que., South Hull—Town Council soon receives bids improving 14 mi. Eardley Rd. between Aylmer and Eardley, waterbound macadam. About $135,000. I. E. Vallee, Dept. Pub. Wks., Quebec, engr.

Que., Westmount—City voted $750,000 bonds to pave and build sidewalks, sewers, storage buildings and extend electric light and fire alarm systems. P. E. Jarman, city engr.

Ont., Brockville—City plans to pave 2 mi. various streets, 28-46 ft. wide, involving 30,000 sq.yd. asphalt or bitulithic, on concrete base. About $95,000. J. G. Mill, Brockville, engr.

Ont., Brockville—Leeds and Grenville Counties authorized the expending of $1,500,000 on gravel and macadam roads, also concrete and steel bridges. E. R. Blackwell, Brockville, supt.

Ont., Ottawa—City plans to build asphalt pavements on Albert St and resurface portion Somerset St., involving 9,000 sq.yd. asphalt and 5000 sq.yd. concrete base. About $37,000. A. F. Macallum, city engr.

Ont., Toronto—City plans to extend Teraulay St, 1¼ mi. and widen 1 mi. of same from 66 to 86 ft., involving wood block asphalt paving on concrete foundation. Work includes building street car lines. About $1,250,000. R. C. Harris, city engr.

BIDS DESIRED

Mass., Framingham—Until July 26, by Bd. Pub. Wks., paving Park and Pearl Sts., concrete and bituminous macadam. About $25,000. F. H. Clark, city engr.

Conn., Stamford—Until July 28, by Bd. Selectmen, grading and paving Hope St., involving 37,000 sq.yd. asphalt, concrete or bituminous concrete, 9,800 cu.yd. earth and 576 cu.yd. rock excav., 55,888 sq.yd. concrete and 500 sq.yd. 12 in. Telford base, 400 lin.-ft. rubble drain, 85 cu.yd. concrete, 1,250 ft. 12 in. and 1,555 ft 8 ft. 36 in. tile drain, 1 rein.-con. bridge, etc

N. Y., Long Island City—Until July 26, by M. E. Connolly, pres. Queens Boro., regulating grading, curbing and laying sidewalks on Central Ave. from Myrtle Ave. to point 117 ft. east of Cypress Hills Rd., 16th Ave. from Grand to Vandeventer Aves., North Jane St. from Vernon Ave. to terminus 368 ft. west, regulating and repaving with asphaltic concrete on macadam foundation, Laurel Hill Blvd. from Betts to Borden Aves., Rockaway Blvd. from Cronins Crossing to Park Ave., Atlantic Ave. from Nortons Creek to Long Island R.R., on concrete foundation, Corona Ave. from Louona to Colonial Aves., with sheet asphalt on concrete foundation Jamaica Ave. from Van Wyck Ave. to Grand St., regulating roadway for 30 ft. width and laying for 8 ft. width, both centrally located, a preliminary pavement of bituminous macadam on 104th Ave. from Farmers Blvd. to Hollis Ave.

N. Y., New York—Until July 29, by G. A. Whalen, comr. plant & structures, Municipal Bldg., building footwalk flooring on north footwalk of Williamsburg Bridge.

N. J., Gibbstown—Until July 30, by E. A. Allen, clk., Greenwich Twp., furnishing labor and material paving Repauno Ave., involving 1,893 sq.yd. rein.-con. and 533 cu.yd. excav.; advertised in this issue.

Pa., Chester—Until July 27, by City Council, paving Edgmont Ave., Crozer, Howard, Mowry, Sproul, Hayes, 8th, Ward, Palmer, 10th, 18th, 7th and 12th Sts. B. Newsome, clk.; advertised in this issue.

Pa., Pittsburgh—Until July 26, by city, improving roadways in Riverview Park, involving concrete and gravel paving, excavating, terra cotta drains, etc., cost $82,600; grading, paving and curbing Baretto St. from Woodlawn Ave. to point 380 ft. southeast, sheet asphalt and block stone, concrete curbing, $14,000; repairing Henderson St. from Federal to Carrie St., blockstone on concrete foundation, new concrete curbing and resetting and dressing present sandstone curbing, $23,500. N. S. Sprague, city engr.

Pa., Pittsburgh—Until July 26, by city, grading, paving and curbing Woodville Ave. from Independent St. to Bankville Ave., asphalt, concrete curbing. About $67,000. Former bids rejected. Noted July 15.

Pa., Pittsburgh—Until July 26, by City Comptroller, repairing and rebuilding South Highland Ave. and Penn Ave. Bridges over Pennsylvania R.R. tracks. Work includes sheet asphalt paving, new reinforcing floor plates, etc. About $17,000 and $124,000 respectively.

Maryland—Until Aug. 2, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building .44 mi. state highway through town of Cambridge, Contr. D-14; .3 mi. through town of Hurlock, Contr. D-21; .67 mi. through town of Taneytown, Contr. CI-30; .44 mi. through town of Sharptown, Contr. WI-12. J. N. Mackall, chn.; advertised in this issue.

Maryland—Until Aug. 2, by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving .11 mi. Cathedral St. from Madison St. to Peabody Alley, sheet asphalt. Contr. BC-32. J. N. Mackall, chn.; advertised in this issue.

Maryland—Until July 28, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building .19 mi. state highway through town of Snow Hill, Contr. WO-22; .31 mi. through town of Pocomoke, Contr. WO-21, and .56 mi. through town of Elkton, Contr. CE-31. J. N. Mackall, chn; advertised in this issue.

W. Va., Charleston—Until Aug. 14, by L. C. Massey, clk. Kanawha Co., building various roads in Cabin Creek Dist.; advertised in this issue.

W. Va., Huntington—Until July 28, by the Bd. City Comrs. grading, curbing and paving Norway Ave. from end of paving at entrance to Woodmere Burial Park, east to corporation line at Crumps Branch, Daulton Ave. from Minton to 20th Sts.; 3rd St. from 8th to 9th Aves. A. B. Maupin, city engr.

W. Va., Logan—Until Aug. 6, by Comrs. Logan Co. grading 4 mi. Logan-Huntington Turnpike. About $60,000. J. W. McClaren, Logan, engr.

W. Va., Spencer—Until Aug. 5, by Comrs. Roane Co. building cement concrete surface on 3 mi. Spencer-Walton Rd., Federal Aid Project 85, 16 ft. wide. W. A. Carpenter, clk. Noted Dec. 20, 1919.

W. Va., Winfield—Until July 26, by Comrs. Putnam Co., grading 2 mi. McLean Turnpike. About $25,000. J. S. Parkins, Paradise, engr.

Fla., Miami Beach—Until July 26, City Council, improving Highway Dist. 5, 28 ft. wide, Dist 6, 34 ft. wide, Dist 7, 32 ft. wide, Dist. 8, 50 ft. wide, Dist. 9, 10 ft. wide and Dist 10, 35 ft. wide. Work includes grading and paving with broken stone and bituminous surface of sand and oil. J. F. Canova, clk.

Tenn., Covington—Until Aug. 2, by J. J. Green, mayor and aldermen, improving Liberty Ave., South Main and Maple Sts., rock asphalt and asphaltic concrete, Toneka surface. W. G. Daniel, city engr.; advertised in this issue.

O., Columbus—Until Aug. 3, by W. H. Duffy, dir. Pub. Serv., paving following streets:

Alley west of Delaware Ave., from 1st to 2nd Aves., 562 feet long, 20 feet wide; involving 1,220 sq.yd. grading, draining, laying water service and sewer connections and paving with brick or concrete, cost $5,524.

Alley north of Frambes Ave., from Waldeck to Indianola Aves., 627 feet long, 20 feet wide, grading, draining, laying water mains and sewer connections and paving with brick or concrete, $6,043.

Ludlow St., from Gay to Chestnut Sts., 1,388 feet long, 33 feet wide, 3,550 sq.yd. grading, draining, laying water mains and sewer connections and paving with brick or asphalt, $16,582.

Pearl St., from Chittenden to 13th Aves., 707 feet long, 20 feet wide, grading, draining, laying water mains and sewer connections and paving with brick or asphalt, $4,367.

Alley west of Ohio Ave. from Mound to Fulton Sts., 390 feet long, 16 feet wide, grading, draining, laying water mains and sewer connections and paving with brick or concrete, $3,533.

Alley west of 17th St. from Bryden Alley to Rich St., 294 feet long, 15 feet wide, grading, draining, making sewer connections and paving with brick or concrete, $2,250.

Alley north of Vermont Pl., from alley west of Michigan Ave. to Perry St., 425 feet long, 16 feet wide, grading, draining, making sewer connections and paving with brick or concrete, $3,613. Noted June 10.

Indiana—By Bd. Co. Comrs. building roads in following counties: July 31, Vigo Co., Terre Haute, A. P. Wilson et al Rd., between Riley and Pierson Twps., gravel. C. M. Lee, aud.

Aug. 2, Jackson Co., Brownstone, J. F. Nichter et al Rd., Jackson Twp., involving 7,200 ft. gravel and 3,450 ft. concrete. A. Luedtke, aud.

Clark Co., Jeffersonville, 14,361 ft. Sects. D and E. J. S. Robertson Rd. T. L. Stoner, aud.

Clark Co., Jeffersonville, $38,589 ft. H. F. Schowe Rd., Union Twp.; 2.48 mi. F. H. School Rd., Silver Creek Twp.; 2.234 mi. W. H. Richardson Rd., Utica Twp.; 1.38 mi. W. W. Smith Rd., Owen Twp.; 8,066 ft. W. W. Bower Rd., all macadam. T. L. Stoner, aud.

Aug. 3, Montgomery Co., Crawfordsville, 9,366 ft. D. L. Miller et al Rd., Clark Twp.; 10,960 ft. G. Himes et al Rd., Scott and Union Twps.; 13,250 ft. W. Sutherlin et al Rd., Brown Twp., all gravel. W. McClelland, aud.

Warrick Co., Boonville, 10,953 ft. E. H. Mellen et al Rd. and 14,748 ft. Boonville and Degonia Rds., Boon Twp., macadam. W. A. Campbell, aud.

Noble and Whitney Counties, Albion, 6,710 ft. F. Wakeman et al Rd. between Noble Twp., Noble Co., and Etna Twp., Whitney Co., gravel. H. C. Erwin, aud., Noble Co.

Noble Co., Albion, 2,712 ft. F. Wakeman et al Rd. between Washington and Noble Twps., gravel. H. C. Erwin, aud.

Streets and Roads (Continued)

Aug. 4, Shelby Co., Shelbyville, 8,050 ft. A. Whisker Rd., Shelby Twp., crushed stone. W. W. Leslie, aud.

Ind., Greenfield—Until Aug. 2, by Bd. Comrs. Hancock Co., grading, draining, building sewers and paving 4 gravel roads. C. Boone, co. engr.

Ind., Greenfield—Until Aug. 3, by Comrs. Hancock Co., grading, building sewers and paving with gravel, 2.75 mi. L. F. Richman Rd., Sugarcreek Twp. and 3 mi. N. H. Fry Rd., Center Twp. C. Boone, co. engr.

Michigan Until July 30, by State Highway Dept., Lansing, grading, draining and surfacing 1.12 mi. State Trunk Line Rd. 19-1 29 ft. wide, 13,098 sq.yd. concrete or bituminous concrete, 4,487 cu.yd. earth excav., etc.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, receiving bids paving East 52nd St. from Cottage Grove Ave. to Drexel Blvd., involving 1,210 ft. concrete curb, 650 cu.yd. grading, 1,930 sq.yd. asphalt on 6 in. concrete, cost $11,500; North Lamon Ave. from Diversey St. to Oakdale Ave., 2,200 ft. concrete curb, 1,696 cu.yd. grading, 2,960 sq.yd. asphalt pavement on 6 in. concrete, etc., $21,500; George St. from Crawford to Springfield Aves. and Harding St. from Diversey to Wellington Sts., 3,840 ft. concrete curb, 3,254 cu.yd. grading, 6,040 sq.yd. asphalt on 6 in. concrete, 170 ft. 10 in. tile sewer, etc., $38,500; Dakin, Byron, Berenice and Grace Sts. from Austin Ave. to point west of Meade St. and Meade St. from Grace St. to Irving Pk. Blvd., 10,300 ft. concrete curb, 7,196 cu.yd. grading, 13,400 sq.yd. asphalt on 6 in. concrete, etc., $93,000; sections of Granville, Rosemont, Maplewood, Campbell and Artesian Aves., 11,800 ft. concrete curb, 800 cu.yd. grading, 17,700 sq.yd. asphalt pavement on 6 in. concrete, etc., $75,000; sections of Grace, Warwick, Waveland, Patterson, Lamon, La Vergne, Le Claire, Laramie, Lockwood and Long Aves., 42,600 ft. concrete curb, 18,800 cu.yd. grading, 58,600 sq.yd. asphalt pavement on 6 in. concrete, etc., $255,000; sections of Lowell, Kildare, Tripp, Keeler, Krona, Kelso, Kasson and Leland Sts., 11,500 ft. concrete curb, 7,740 cu.yd. grading, 16,000 sq.yd. asphalt pavement on 6 in. concrete, 670 ft. 10-12 in. tile sewer, etc., $76,000.

Minn., Walker—Until Aug. 3, by Cass Co., building 12 mi. Job 2004 from Pontoria to Longville, involving 124,858 cu.yd. excav., 1,200 cu.yd. loose rock, 14,820 cu.yd. overhaul, 800 cu.yd. hard ditch, 3,195 lin.ft. 12-24 in. portable culverts, 90 cu.yd. concrete, etc. About $45,000.

Minn., Walker—Until Aug. 3, by Cass Co., building 7 mi. Job 2,001, from Federal Aid Project 142, east to county line, involving 30 acres clearing and grubbing, 55,831 cu.yd. excav., 26,542 cu.yd. graveling and 7,000 cu.yd. clay surfacing, etc., cost $40,000; 7 mi. Federal Aid Project 142, State Rd. 6, 10 acres clearing and grubbing, 77,067 cu.yd. excav., 21,398 cu.yd. graveling, 70 cu.yd. concrete, etc., $50,000; 12 mi. Federal Aid Project 140, State Rd. 11, from Pine River to Longville, 69,279 cu.yd. excav., 40,413 cu.yd. graveling, 76 cu. yd. concrete, etc., $84,000. A. W. Moulster, Pine River, engr.

Kan., Sabetha—Until Aug. 2, by Comrs. Nemaha Co., improving 6¼ mi. Capital Highway. C. M. Brown, clk.

South Dakota—Until Aug. 6, by State Highway Comn., at Div. office, Aberdeen, grading and draining 16.46 mi. Mound City-Leola-Ipswich Highway, 36 ft. wide, McPherson Co., involving 66 cu.yd. solid rock, 418 cu.yd. structure and 598 cu.yd. loose rock excav., 303 lb. structural steel, 1,086 lin.ft. concrete or corrugated pipe culverts, 547 cu.yd. concrete and 36,540 lb. reinforcing steel for culverts, 84,215 cu.yd. common and 60,606 yd. sta. overhaul excav., about $89,000; 10.69 mi. Milbank-Webster Rd., 36 ft. wide, Roberts Co., 492 cu.yd. Class A, 46 cu.yd. Class B and 9 cu.yd. Class D concrete, 14 cu.yd. concrete flooring, 932 lin.ft. rein.-con. or corrugated pipe culverts, 65,061 cu.yd. excav., 716 cu.yd. structure and 84,977 cu.yd. sta. overhaul excav., 9,900 lb. structural and 39,147 lb. reinforcing steel, $82,000; 21.1 mi. Webster-Aberdeen-Mobridge Highway, 36 ft. wide, Brown Co., 136,719 cu.yd. excav., 538 cu.yd. structure and 264,682 yd. sta. overhaul excav., 1,738 lin.ft. rein.-con. or corrugated iron culverts, 26,188 lb. reinforcing steel, 296 cu.yd. Class A and 107 cu.yd. Class B concrete, etc., $121,000. F. S. Peck, Pierre, state highway engr.

South Dakota—Until Aug. 4, by State Highway Comn., Pierre, grading and draining 14.76 mi. Waterown-Hayti Rd., 36 ft. wide, Hamlin Co., involving 38,150 cu.yd. overhaul and 78,616 cu.yd. excav., 2018 lin.ft. rein.-con. or corrugated iron culverts, 2,184 lb. reinforcing steel, 18 cu.yd. Class A and 102 cu.yd. Class B concrete, etc., about $79,000; 12.94 mi. Gettysburg-Faulkton Rd., 36 ft. wide, Potter and Faulk Counties, 80 cu.yd. solid and 720 cu.yd. loose rock, 1306 lin.ft. rein.-con. or corrugated pipe culverts 53,220 cu.yd. overhaul and 75,967 cu.yd. excav., 7399 lb. reinforcing steel, 91 cu.yd. Class A and 102 cu.yd. Class B concrete, etc., $66,873. F. S. Peck, Pierre, state highway engr.

South Dakota—Until Aug. 3, by State Highway Comn., at div. office, Chamberlain, grading and draining 6.58 mi. Presho-Winner Rd., 36 ft. wide, Lyman and Tripp Counties, involving 79,537 cu.yd. overhaul and 59,000 cu.yd. excav., 560 lin.ft. rein.-con. or corrugated iron pipe culverts, 11,595 lb. reinforcing and 475 lb. structural steel, 190 cu.yd. Class A and 41 cu.yd. Class B concrete, etc., about $58,000; 9.1 mi. Chamberlain-Plankinton Rd., 36 ft. wide, Brule Co., 1,946 lin.ft. concrete or corrugated pipe, 323 cu.yd. concrete for culverts, 17,148 lb. reinforcing steel, 8880 yd. sta. overhaul and 63,364 cu.yd. excav., $66,700; 8.47 mi. Chamberlain-Fresno Rd., 36 ft. wide, Lyman and Brule Counties. F. S. Peck, Pierre, state highway engr.

South Dakota—Until Aug. 4, by State Highway Comn., Pierre, grading and draining 11.69 mi. Ft. Pierre-Philip Rd., 36 ft. wide, Stanley Co., Sect. A of Federal Aid Project 14, involving 59,076 yd. sta. overhaul and 73,989 cu.yd. excav., 594 lin.ft. corrugated iron or concrete pipe culverts, 20,092 lb. reinforcing steel, 291.5 cu.yd. Class A and 73 cu.yd. Class B concrete. About $75,000. F. S. Peck, Pierre, state highway engr.

Missouri—Until July 31, by State Highway Dept., Hermitage, building 4.49 mi. Preston-Collins Rd. (Preston Special Rd. Dist.), 24 ft. wide, Federal Aid Project 46, Hickory Co., involving 18,474 cu.yd. earth excav., 1,544 cu.yd. borrow, 1,000 cu.yd. per 100 ft. overhaul, 25,917 sq.yd. gravel pavement Specification "B," 6,328 sq.yd. gravel surface course, 126.7 cu.yd. Class "B" and 168.4 cu.yd. Class "C" concrete masonry, 6,492 lb. reinforcement for concrete masonry and 105 lin.ft. 12-15 in. vitr. clay pipe culverts, cost $26,094; 7.4 mi. Springfield-Sedalia Rd. (Preston Special Rd. Dist.), 24 ft. wide, Federal Aid Project 45, Hickory Co., 29,157 cu.yd. earth and 250 cu.yd. rock excav., 1,530 cu. yd. borrow, 200 cu.yd. per 100 ft. overhaul, 50,525 sq.yd. gravel pavement Specification "B," and 48 cu.yd. Class "C" concrete masonry, 20,558 lb. reinforcement for concrete masonry, 98 lin.ft. 12-18 in. vitr. clay pipe culverts and 99 lin.ft. relaid pipe culvert, $42,010. Noted January 1 and 29.

Mo., St. Louis—Until Aug. 10, by city, covering old foundation course with asphaltic binder and asphaltic cement wearing surface, Lafayette Ave. from Waverly Pl. to Grand Ave., involving 14,425 sq.yd. asphaltic cement, 1,162 ton refined asphaltic wearing surface, 2,177 gal. each "A" and "B" refined tar binder, cost $45,500, also Maple Ave. from Hamilton to Hodiamont Aves., 6,362 sq.yd. asphaltic cement, 509 ton refined asphalt, 239 ton asphaltic binder, ¾ ton asphaltic cement, $19,650; removing macadam base and paving with bituliithic, Marcus Ave. from Labadie to Ashland Aves., 25 cu.yd. earth excav., 210 sq.yd. concrete, 1,230 sq.yd. bituminous concrete, $11,000; removing present wearing surface and replacing with asphaltic cement, 7th Ave. from Park to Choteau Aves., 7,280 sq.yd. asphaltic cement, $20,284; Lawton Ave. from Jefferson to Grand Aves., 8,940 sq.yd. asphaltic cement, 715 ton refined asphaltic wearing surface, 559 ton asphaltic binder, $29,700; Skinker Rd. from Delmar to Forsythe Blvds., 13,805 sq.yd. asphaltic cement, 1,104 ton refined asphalt, 518 ton refined asphaltic binder, $40,800; Union Blvd. from Easton to St. Louis Aves., 15,665 sq.yd. asphaltic cement, 1,254 ton refined asphaltic wearing surface, 588 ton asphaltic binder, $48,000. W. W. Horner, City Hall, engr. Noted July 15.

Tex., Amarillo—Until Aug. 20, by R. C. Johnson, judge Potter Co., improving highway 5 et al. Nagle, Witt, Rollins Eng. Co., Amarillo, engrs.; advertised in this issue.

Tex., Bastrop—Until July 28, by grading, gravel surfacing and draining 8.814 mi. Highway 20-A, through Rd. Dist. 3, 14 ft. wide. About $68,993. A. F. Mitchell, Cameron, co. engr. Noted June 24.

New Mexico—Until July 31, by State Highway Dept., Capitol Bldg., Santa Fe, building 15.41 mi. Federal Aid Project 34, including bridges, between Chama and Tierra Amarilla, Rio Arriba Co. Noted June 24.

Utah, Salt Lake City—Until Aug. 2, by Salt Lake Co., paving 2.5 mi. 21st St. from 13th St. E. to Wasatch-Bonneville Blvd., 2 in. bituminous wearing surface. G. Bywater, C & C Bldg., engr.

Washington—Until Aug. 2, by State Highway Dept., Olympia, surfacing 8.62 mi. Inland Empire Highway, between Lodge and Delaney, Columbia and Garfield Counties, crushed rock; clearing, grading, draining and surfacing 2.4 mi. State Rd. 22, from Rickey south, gravel, and 1.25 mi. North Bank Highway, from Skamania Sta. east, crushed rock. J. Allen, state highway engr.

Ore., Portland—Until Aug. 2, by Multnomah Co., paving 4,000 sq.yd. Montgomery Dr., 6,000 sq.yd. St. Helens Rd., 21,000 sq.yd. Columbia Blvd., and 7,000 sq.yd. on Bway. Bridge. W. Eatchel, roadmaster.

Cal., South Pasadena—Until Aug. 9, by B. V. Garwood, city clk., grading, curbing, guttering and building sidewalks on Monterey Rd., Oak and Spruce Sts. and Ramona and Diamond Aves. R. V. Orbison, city engr.

Nova Scotia—Until July 30, by Provincial Government, Halifax, building 15 mi. Woods Harbor-Pubnico Rd., Yarmouth Co.; also 8.8 mi. Baddeck-Ferry Rd. and 11 mi. Sydney-Hawkesbury Rd., Cape Breton Co., all 16 ft. wide, gravel macadam. About $140,000 and $188,000 respectively. J. W. Roland, engr.

Que., Montreal—Until July 27, by Administrative Comn., building sidewalks on Wilson Ave., Marcil, Marianna, Old Orchard, Hampton, Du Rosaire, Belmore, Victoria, Cote Ste. Antoine and St. Jacques Rds. About $350,0000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Maine—State Highway Comn., Augusta, received only bid June 23, building 2.26 mi. concrete road, Norway and Paris, from Hassam Paving Co., 17 Federal St., Worcester, Mass., $77,190.

★**Maine**—State Highway Comn., Augusta, let contract building 6.12 mi. gravel road, Littleton, to Greenwood Constr. Co., Skowhegan, $117,987; rebuilding Gagnon Bridge, Frenchville, to Bd. Selectment, Frenchville, $10,800.

★**Vermont**—State Highway Comn. Montpelier, let contract building 1.26 mi. State Highway Project 16, East Montpelier, involving 2,910 cu.yd. gravel, 139.5 cu.yd. concrete, 5,827 cu.yd. earth and 100 cu.yd. rock excav., 2,533 cu.yd. stone base, 1,381 cu.yd. borrow, etc., to G. L. Gregoire & Co., Barre, $35,852; 4.03 mi. Project 15, South Burlington and Shelburne, 111,825 gal. oil asphalt, 100 cu.yd. concrete, 2,296 cu.yd. earth and 800 cu.yd. rock excav., 4,142 yd. bituminous macadam, 1,166 cu.yd. stone base, 7,175 cu.yd. borrow, etc., to W. T. Thayer & Co., Chateaugay, N. Y., $119,697; 5.6 mi. Project 14, Dummerston, 14,106 sq. yd. gravel, 546 cu.yd. concrete, 100 sq.yd. cobble gutter, 34,445 cu.yd. earth and 3,011 cu.yd. rock excav., 1,497 cu.yd. bituminous macadam, 1,054 cu.yd. borrow, etc., to Fallkill Constr. Co., 1 Washington St., Poughkeepsie, N. Y., $124,083. Noted June 24.

Vermont—State Highway Comn., Montpelier, received bids July 1, building 4.07 mi. State Highway Project 13, New Haven and Waltham, involving 9,078 yd. waterbound macadam, 139 cu.yd. concrete, 100 sq.yd. cobble gutter, 8,324 cu.yd. earth and 14 cu.yd. rock excav., 3,609 cu.yd. stone, etc., from J. Arborio, 80 Park St., New Haven, Conn., $127,249; 13.57 mi. Project 12, Dorset, Mt. Tabor and Danby, involving 32,841 cu.yd. gravel, 1,193 cu.yd concrete, 200 sq.yd. cobble gutter, 100 sq.yd. concrete gutter, 47,554 cu.yd. earth and 478 cu.yd. rock excav., 2,892 cu.yd. stone, 4,428 cu.yd. borrow, 1,230 lin.ft. 12-18 in. corrugated pipe culverts, 26,773 lb. reinforcing steel, etc., from P. C. Ricci, Rutland, $286,810, M. H. Ripton, Livingston Bldg., Rochester, N. Y., $377,490; 0.73 mi. Project 3, Barnet, involving 1,073 yd. gravel cushion, 44.7 cu.yd. concrete, 3,236 cu.yd. earth and 387 cu.yd. rock excav., 2,286 cu.yd stone base, etc., from Perini & Sons, Inc., Ashland, Mass., $35,154. W. E. Dix Corp., Springfield, $36,296. Noted June 24.

Vt., Springfield—Village received bids June 15, building bituminous macadam pavement on Clinton, Main and Valley Sts., involving (a) 2,000 cu.yd. excav., (b) 1,700 cu.yd. sub-base, (c) 1,920 sq.yd. reshaping, (d) 200 cu.yd. bottom course, (e) 652 cu.yd. top course, (f) 18,000 gal. binder, from W. E. Dix, Springfield, (a) $115 pr cu.yd., (b) $3.25, (c) $.15, (d) $6.20, (e) $6.70, (f) $.15, total $16,241; Linberg & Street, 294 Washington St., Boston, (a) $2.50, (b) $6.10, (c) $.18, (d) $10.30, (e) $11, (f) $.15, total, $27,647; P. Baldasoro, Bellows Falls, (a) $3, (b) $7, (c) $3, (d) $10, (e) $10, (f) $.10, total, $33,980. Noted June 3.

Massachusetts—State Highway Comn., Boston, received bids July 6, building 3,300 ft. state highway, Leicester, from J. Mac-

Streets and Roads (Continued)

Donald Constr. Co., Boston, $51,731; D. Orifro Bros., Leominster, $59,979; C. Bianchi & Co., Inc., Framingham, $61,023. Noted July 1.

★**Massachusetts**—State Highway Comn., Boston, let contract building 7,200 ft. highway, Dudley, to C. Bianchi & Co., Framingham, $61,638. Noted July 1.

★**Mass., Boston**—City let contract paving Tremont and Boyleston Sts., to J. D. Doherty, 133 Calumet St., Roxbury, $26,248. Noted June 10.

★**Mass., Boston**—City let contract paving Archdale Rd., West Roxbury, involving 6,800 sq.yd. topeka on 4 in. concrete base, to M. De Matteo, 154 Dudley St., Roslindale, $27,165. Noted June 24.

★**Mass., Boston**—City will pave with granite block on 6 in. concrete base and build sidewalks on Chelsea St. About $28,000. Work will be done by day labor.

Rhode Island—State Bd. Pub. Rds., State House, Providence, received bids July 7, rebuilding 2 mi. road from point, 1,000 ft. south of Nanaquaket Bridge and extending south on Sakonnet Point Rd., in town of Tiverton, from J. Bristow, Narragansett Pier, $87,652; J. McCormick, Newport, $89,638; Linberg & Street, 294 Washington St., Boston, $94,720. Noted June 24.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received bids July 14, regulating and repaving (a) Atlantic Ave., (b) Bergen St., (c) West 5th St., (d) East 10th St., (e) Junius St., (f) 81st St., (g) Newport St., from Leonard Paving Co., 233 Bway., New York City, (a) $228,509; F. J. Gallagher, 490 Park Pl., (a) $255,151; Brooklyn Alcatraz Paving Co., 407 Hamburg Ave., (b) $21,915, (c) $11,011, (d) $16,649, (f) $14,175; Uvalde Asphalt Paving Co., 1 Bway., New York City, (b) $22,309, (c) $10,962, (d) $16,689, (e) $9,794, (f) $13,897, (g) $9,515; Consolidated Asphalt Paving Co., 52 9th St., (b) $22,517, (c) $11,164, (d) $16,630, (e) $9,848, (f) $13,954, (g) $9,535; Sicilian Asphalt Paving Co., 41 Park Row, New York City, (b) $22,911, (c) $11,564, (d) $16,560, (e) $9,883, (f) $14,101, (g) $9,656. Noted July 8.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids July 14, regulating and repaving with sheet asphalt, (1) Bway., (2) West 36th St., (3) East 82nd St., (4) East 51st St., (5) West 12th St., (6) with asphaltic concrete, West 36th St., (7) East 51st St., (8) 82nd St., (9) West 12th St., (10) Bway., (11) with asphalt block, East 82nd St., (12) Bway., (13) with wood block, Bway., from Uvalde Asphalt Paving Co., 1 Bway., (1) $45,765, (2) $23,551, (3) $38,544, (4) $23,491, (5) $64,394, (9) $29,622; Cleveland Trinidad Paving Co., Flushing, (1) $47,986, (2) $24,531, (3) $37,301, (4) $23,323, (5) informal; J. L. Brusstar, Harlem River and 150th St., (1) $48,196, (2) $24,100, (3) $39,772, (4) $22,470, (5) $28,650, (6) $25,168, (7) $23,193, (8) $38,391, (9) $30,049; Asphalt Constr. Co., 2197 Madison Ave., (3) $35,709, (4) $23,682; Hastings Paving Co., 25 Broad St., (11) $43,622, (12) $51,621; W. J. Fitzgerald, 547 West 45th St., (13) $52,622. Noted July 8.

N. Y., New York—Park Bd., at office of Dept. Parks, Municipal Bldg., received bids July 15, furnishing labor and material building North Island of Plaza at 5th Ave. between 59th and 60th Sts., from P. T. Cox, 154 Nassau St., $74,640, Fox Reynolds Co., 81 East 125th St., $122,700; also repaving with heavy sheet asphalt, center roadway of Bronx and Pelham Parkway, from J. L. Brusstar, Harlem River and 150th St., $7,680, Uvalde Asphalt Paving Co., 1 Bway., $8,100, Asphalt Constr. Co., 2197 Madison Ave., $8,112. Noted July 8.

★**N. Y., S. I., St. George**—C. D. Van Name, pres. Richmond Boro., let contract repaving Rockland Ave. and Richmond Rd., to C. Vanderbilt, 24 Elizabeth St., West New Brighton, $32,732 and $17,790 respectively. Noted July 8.

N. Y., Syracuse—City received bids repairing railway strip of Belden Ave. from Maltbie to Liberty Sts., (1) vitr. brick, (2) sandstone, from F. G. Baker, University Blk., (1) $79,507, (2) $86,299; C. T. Hookway, Syracuse, (1) $87,370, (2) $93,313.

N. J., Flemington—Hunterdon Co. received bids building (a) 1.25 mi. road Lambertville to Pancoast Lane and 0.75 mi. Runkle Driveway to station, (b) 0.6 mi. Flemington Junct. to railroad, all concrete, from J. F. Burke Co., Plainfield, (a) $40,553, (b) $53,238; C. H. Winans & Co., 207 Broad St., Elizabeth, (a) $44,388, (b) $60,084; C. B. Bitler, Phila., (a) $41,777, (b) $58,176.

★**N. J., Freehold**—Bd. Freeholders, Monmouth Co., let contract paving 3 mi. Ocean Ave., 30 ft. wide, Monmouth Beach and Seabright, to Eastern Paving Co., Colonial Trust Bldg., Phila., $262,315. Noted June 10.

N. J., Jersey City—Hudson Co. Blvd. Comn. received bids July 7, improving Hudson Co. Blvd. from Paterson to Hackensack Plankroads, from G. W. Brewster Sons, Hackensack, $347,100; Clinton Contg. Co., 306 Charles Ct., West Hoboken, $386,100; Willite Rd. Constr. Co., 51 Chambers St., New York City, $387,075. Noted June 24.

★**Pennsylvania**—State Highway Dept., Harrisburg, let contracts paving 3,549 ft. road in Matamoros Boro., also 4,508 ft. in Milford Boro., Pike Co., sheet asphalt, to H. B. Sproul Co., 218 Adams Ave., Scranton, $35,155 and $49,602 respectively. Noted June 24.

★**Pa., Mt. Lebanon** (Pittsburgh P. O.)—Township let contract grading, curbing and paving Lavinia Ave. from Bower Hill Rd. to north end of street, involving 1,400 cu.yd. grading, 1,970 ft. 18 in. curbing and guttering, 2,260 sq.yd. asphalt concrete, etc., also Academy Ave. from Orchard Pl. to Cochran Rd., 700 cu.yd. grading, 830 lin.ft. 18 in. curbing and guttering, 960 sq.yd. brick paving, to M. Ott Co., 416 Warrington Ave., Pittsburgh, $17,980 and $7,795 respectively.

★**Pa., Phila.**—City let contract to T. Connor, 3329 North 5th St., grading Camac St. from Olney Ave. to point north of Grange Ave., Chew St. from Broad to Sydenham Sts., 12th St. from Olney Ave. to point north of Grange Ave., $13,673; Dorcas St. from point north of Bleigh to Faunce Sts., Whitaker Ave. from Cottman St. to Bleigh Ave., $9,094; 17th and 18th Sts. from 68th Ave. N., to Haines St., $1,090; Syndenham St. from Duncannon to Fisher Aves., $2,045; Courtland St. from Front to Ella Sts., $1,338; to F. Mark Contg. Co., 2820 North 21st St., 20th St. from Venango to Pacific Sts., $1,841; to J. J. McHugh, 1430 South Penn Sq., Pentridge St. from 53rd St. to point east of 54th St., $1,657; to P. L. Flanagan, 1204 East Montgomery Ave., Luzerne St. from K St. to Kensington Ave., $13,404; to I. K. Davis Co., 20th and Spencer Sts., Durham St. from Anderson to Ardleigh Sts., $8,758; to Phila. Boiler Wks., 1737 Filbert St., furnishing asphalt storage tanks for Asphalt Plant, $5,120; to Kinney Mfg. Co., 725 Commercial Trust Bldg., asphalt pump and engine and asphalt strainer, $1,147; to Whitlock Coil Pipe Co., Elmwood St., Hartford, Conn., heating coils, $3,040; to Highway Trailer Co. of Pensylvania, 238 South 11th St., auto trailer fire wagon, $3,070; McAvoy Vitr. Brick Co., 1345 Arch St., portland cement concrete sand, $1,560.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, let contract resurfacing with sheet asphalt 2.1 mi. Philadelphia Rd. from end of sheet asphalt to New City Line, Contr. BC-34, to Amer. Paving & Contg. Co., Montebello Ave. and Jenkins Lane, Baltimore, $73,530; 2.75 mi. Harford Rd. from Old City Line to New City Line, 18 ft. wide, Contr. BC-36, to P. Flanigan & Son, Harford Ave. and 25th St., Baltimore, $89,903; 1.45 mi. Frederick Rd. from Old City Line to New City Line, 18 ft. wide, Contr. BC-37, to Baltimore Asphalt Block & Tile Co. Monroe and Lorman Sts., Baltimore, $42,470; graveling 6 mi. state road from near Owensville toward Shadyside, 16 ft. wide, Federal Aid Projet 34, Contr. AA-15-A, to E. H. Smith, 229 Garrison Ave., Baltimore, $6,000. Noted June 24.

D. C., Washington—Dist. Comrs., 509 Dist. Bldg., received bids repairing asphalt pavements, for period of 1 year, (1b) standard curb, 6 in. base, (2b) standard surface, no base, (3b) laying asphalt binder, (4b) standard asphalt surface, railroad repairs, (5b) asphalt binder, railroad repairs, from Cranford Paving Co., 2620 E St. N. W., (1b) $3.90 sq.yd., (2b) $1.34 sq.yd., (3b) $.64 cu.ft., (4b) $1.10 cu.ft., (5b) $.90 cu.ft.; laying 65,000 sq.yd. sheet asphalt pavements, (1b) standard curb 6 in. base, (2b) vitr. block on 6 in. concrete base, (3b) laying standard asphalt surface, 5 in. concrete base, (4) vitr. block on 5 in. concrete base, from Corson & Gruman, 61 Rhode Island Ave. N. E., (1b) $3.95, (2) $3.63, (3b) $3.75, (4) $3.43, Cranford Paving Co., (1b) $3.97, (2) $3.58, (3b) $3.77, (4) $3.38.

★**Virginia**—State Highway Dept. Richmond, let contract hard surfacing 2 mi. Natl. Highway, through Danville, to Battishill & Clay, Danville. About $75,000.

★**North Carolina**—State Highway Comn., Raleigh, let contract grading, surfacing, draining and building necessary bridges on 27 mi. Dunn-Clinton Rd., 16 ft. wide, Sampson Co., to R. P. Ashby, Raleigh. About $180,000. Noted June 10.

★**N. C., Kingston**—Comrs. Lenoir Co. let contract hard surfacing 7.23 mi. road, to T. H. Gill & Co., $254,789.

★**N. C., Monroe**—Union Co. will build 12.89 mi. gravel road, 16 ft. wide, by day labor, $155,337.

★**N. C., Winston-Salem**—Comrs. Forsyth Co. let contract grading and top soiling 1 mi. Box Mountain Rd., to S. Taylor, Winston-Salem. About $39,000.

★**S. C., Columbia**—City let contract grading North Main St. from Scott St. to city limits, to Powell Paving & Constr. Co., Palmetto Bank Bldg., $3,343; furnishing concrete pipe, to Shearman Concrete Pipe Co., Memphis, Tenn., $6,409; curbing and draining, to Concrete Constr. Co., Columbia, $18,439. Noted July 1.

Ohio—State Highway Comn., Columbus, received bids July 16, building roads in following counties:

Columbiana and Mahoning Counties, Sect. "K," Alliance-Salem Rd., 1.02 mi., grading, constructing bridges and culverts and paving with brick, from Jones Constr. Co., Lisbon Rd., Salem, $49,875; J. D. Paxon, Salem, $49,924.

Guernsey Co., Sect. "C," Cambridge-Caldwell Rd., constructing bridge, J. P. Mumaw, Byerville, O., $928.

Huron Co., Sect. "L," Norwalk-Plymouth Rd., 2.58 mi., grading and draining roadway, A. J. Bates, Norwalk, $10,062.

Mahoning Co., Sect. "B," Youngstown-Lisbon Rd., 2.51 mi., grading, constructing bridges and culverts and paving with brick, T. W. Miller Cont. Co., Youngstown, $93,493; W. M. Keeseeka, Youngstown, $96,456.

Miami Co., Sect. "A-3," Piqua-Troy Rd., .146 mi., grading, constructing drainage structures and paving with rein.-con., J. Karsh, Celina, $6,600; J. Hennesey, Piqua, $9,609.

Paulding Co., Sect. "A-2," Paulding-Ft. Wayne Rd., 2.997 mi., grading, constructing bridges and culverts and paving with concrete, W. Huber, Bloomingburg, $130,118; S. Monroe & Son Co., Portsmouth, $131,118, paving with monolithic brick, $150,112; D. M. Roach, Defiance, paving with brick, $153,130.

Sandusky Co., Sect. "S-1," Lima-Sandusky Rd., 1.179 mi., grading, constructing drainage structures and paving with brick, Modern Constr. Co., Fremont, $74,866, paving with concrete, $72,554.

Sect. "T," Sandusky-Clyde Rd., 1.264 mi., grading, constructing drainage structures and paving with brick, Lee Bros. & Petticord, Clyde, $60,980.

Sect. "A," Memorial Rd., .3 mi., grading and paving with brick, A. J. Witte, Elmore, $39,948; Modern Constr. Co., Fremont, $39,958.

Trumbull Co., Sect. "S," Warren-Sharon Rd., 1.34 mi., grading, constructing bridges and culverts and paving with brick, McDermott & Hannan, Niles, $70,664; J. A. Galadini, Girard, O., $71,160.

Sect. "R-1," Youngstown-Sharon Rd., .66 mi., grading, constructing bridges and culverts and paving with brick, W. H. Keeseeka, Youngstown, $47,083; Kane Bros., Youngstown, $47,609.

Wyandot Co., Sects. "J" and "K" of I. C. H. No. 113, 4.545 mi., grading, constructing bridges and culverts and paving with bituminous concrete, H. P. Streicher Co., 319 Terminal Bldg., Toledo, $220,423; paving with asphaltic concrete, $206,068.

★**Ohio**—State Highway Comn., Columbus, let contracts building roads in the following counties:

Ashland Co., Sect. "B" Ashland-Wooster Rd., 3.78 mi., grading, constructing bridges and culverts and paving with monolithic brick, to Foster-Heffner Constr. Co., Dayton, $175,997.

Coshocton Co., Sect. "E" Newcomerstown-Coshocton Rd., 2.47 mi., grading, draining and paving with monolithic brick, to T. J. Norman & Son, West Lafayette, O., $122,853.

Erie Co., Sect. 'A" Lima-Sandusky Rd., 3.05 mi., grading, constructing bridges and culverts and paving with concrete, to E. F. Hoffman, Castalia, O., $124,216.

Franklin Co., Sect. "Z" Natl. Rd., .84 mi., grading, draining and paving with asphalt, to Franklin Asphalt Paving Co., Columbus, $130,971. Contr. No. 2, covering same distance and road, between interurban tracks, paving with asphalt, to Franklin Asphalt Paving Co., Columbus, $22,254.

Gallia Co., Sect. "F-2" and "G" Jackson-Gallipolis Rd., 6.24 mi., grading, constructing bridges and culverts and paving with bituminous macadam, to Miller Bros., Gallipolis, $179,218.

Guernsey Co., Sect. "Fairview Corporation" Natl. Rd., .54 mi., grading, draining and paving with brick on sandstone base, to C. E. Wilson, Barnesville, O., $22,227.

Sandusky Co., Sect. "L" Fremont-Perrysburg Rd., 6.54 mi., grading, constructing bridges and culverts and paving with brick, to Modern Constr. Co., Fremont, $425,512.

Streets and Roads (Continued)

Union Co., Sect. "D" Columbus-Marysville Rd., 2.88 mi., grading, constructing bridges and culverts and paving with bituminous macadam, to T. V. Van Camp, Cincinnati, $91,493.

Sect. "E" Columbus-Marysville Rd., 5.35 mi., grading, constructing bridges and culverts and paving with bituminous macadam, to T. V. Van Camp, Cincinnati, $177,684.

Wayne Co., Sect. "F" Cleveland-Wooster Rd., 4.08 mi., grading, constructing bridges and culverts and paving with monolithic brick, to Lee, Griggs & Anderson, Millersburg, $151,287. Noted July 1.

★**O., Marysville**—Union Co. let contract grading, draining and paving with water-bound macadam .875 mi. Forrider Rd., 16 ft. wide, Washington Twp., to L. J. Harris, $10,126; 3.25 mi. Marysville-Watkins Rd., 16 ft. wide, Davis and Millcreek Twps., to C. O. Herd & Sons, Lima, $44,199; 2.75 mi. Larisburg-Delaware Rd., 16 ft. wide, to C. B. Phelps, $35,360; grading, building drainage structures and paving 2 mi. Essex and Arbola Rds., 16 ft. wide, also grading, building bridges and paving 1.75 mi. Boundry Rd., 16 ft. wide, York and Washington Twps., to L. G. Rockheld, $33,500 and $25,575 respectively; grading, building bridges and culverts and paving 2.5 mi. Rose Rd., 16 ft. wide, Claibourne Twp., to Union Macadam Co., $34,599.

★**Michigan**—State Highway Dept., Lansing, let contract grading and draining 3.44 mi. Federal Aid Rd. 40, Barry Co., involving 32,786 cu.yd. earth excav., 441 lin.ft. pipe culverts, 128.4 cu.yd. concrete in culverts and 1,800 lb. steel reinforcement, to Kalamazoo Constr. Co., 115 Pratt Blk., Kalamazoo, $30,332. Noted April 22.

★**Mich., Detroit**—City let contracts to T. E. Currie, 20 McGraw Bldg., grading and paving Alley 1,174, $4,821 and 1,178, $7,993; to Lester & Shepard, 400 Penobscot Bldg., 1,175, $5,589; to Otis Cement Constr. Co., 806 Hammond Bldg., 1,176, $9,813, 1,181, $6,797, 1,184, $6,157; to R. A. Mercier, 756 Hudson Ave., 1,177, $6,100, 1,180, $8,412, 1,183, $5,006; to R. J. Powelson Co., 1577 Iroquois Ave., 1,179, $5,723, 1,182, $5,393, 1,185, $4,692. Noted July 1.

Mich., Detroit—City received bids grading, shaping and paving with sheet asphalt on 8 in. concrete foundation, Amherst or Berea curbstone (a) Coplin Ave., (b) Concord Ave., (c) Heck Pl., (d) Lycaste Ave., (e) Lafayette Ave., (f) Marlborough Ave., (g) Milford Ave., (h) Newport Ave., (i) Philadelphia Av., (j) Springwells Ave., (k) Charlevoix Ave., from Detroit Asphalt Paving Co., 20 McGraw Bldg., (a) $51,562, (b) $19,620, (c) $14,789, (d) $29,517, (e) $37,515, (f) $14,399, (g) $55,933, (h) $33,133, (i) $38,633, (j) $29,042, (k) $32,119; Cleveland Trindiad Paving Co., 2940 Woodward Ave., (a) $58,290, (b) $20,879, (c) $16,534, (d) $33,292, (e) $41,997, (f) $16,452, (g) $61,635, (h) $37,863, (i) $38,436, (j) $33,085, (k) $36,379. Noted June 17 and 24.

Mich., Detroit—City received bids grading, shaping and paving with sheet asphalt or granite block on 8 in. concrete foundation, Berea or Amherst curbstone, alleys to be paved with 1 course concrete with 2 x 6 in. retaining plank, (a) Dix Ave., (b) Alter Rd., (c) Fenkell Ave., (d) Joy Rd., (e) Lycaste Ave., (f) Alley 1,186, (g) 1,187, (h) 1,188, (i) 1,189, (j) 1,190, (k) 1,191, (l) 1,192, from Cleveland Trinidad Paving Co., 2940 Woodward Ave., (a) $5,713, (b) $133,685, (c) $138,929, (d) $168,319; Detroit Asphalt Paving Co., 20 McGraw Bldg., (a) $5,032, (b) $123,941, (c) $135,775, (d) $170,082; T. E. Currie, 20 McGraw Bldg., (e) $76,296; G. R. Cooke, 1260 Penobscot Bldg., (e) $75,868; Otis Cement Constr. Co., 806 Hammond Bldg., (f) $2,142, (g) $8,048, (h) $3,084, (i) $4,848, (j) $5,472, (k) $6,365, (l) $7,348; Lester & Shepard, 400 Penobscot Bldg., (f) $2,112, (h) $33,014; R. Porath Sons, 1131 McKinley St., (g) $8,195, (j) $5,328, (k) $6,251, (l) $7,508; R. A. Mercier, 746 Hudson Ave., (g) $7,812, (i) $4,889, (k) $6,225; R. J. Powelson Co., 1577 Iroquois Ave., (i) $4,764, (j) $5,274, (l) $7,465. Noted July 8.

★**Mich., Ford** (Wyandotte P. O.)—Village let contract grading, shaping and paving St. John, St. Antoine, Davis and 1st Sts. and Riverside Drive, involving 30,000 sq.yd. 2 course concrete, concrete curbing, to Rice Constr. Co., Wyandotte. About $150,000. Noted May 20 and June 17.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids June 29, paving (1) alley between East 43rd St., St. Lawrence and Champlain Aves., involving 400 cu.yd. grading, 640 sq.yd. asphalt pavement on 7 in. concrete, (2) alley between Roosevelt Rd., Ashland Ave., Washburn and Paulina Sts., 1,354 ft. concrete curb, 520 cu.yd. grading, 1,080 sq.yd. vitr. brick pavement on 6 in. concrete, (3) alley between Douglas Blk., Kedzie Ave., West 13th and Troy Sts., 409 cu.yd. grading, 939 sq.yd. asphalt pavement on 7 in. concrete, 166 ft. 10 in. tile sewer, etc., (4) alley between Wabansia, Campbell, North and Maplewood Aves., 474 cu.yd. grading, 1,220 sq.yd. asphalt pavement on 7 in. concrete, (5) Bernard St. from Waveland to Elston Aves., 1,220 ft. concrete curb, 926 cu.yd. grading, 1,900 sq.yd. asphalt pavement on 6 in. concrete, (6) California Ave. from Devon Ave. to Albion St., 2,470 ft. concrete curb, 2,800 cu.yd. grading, 5,800 sq.yd. asphalt pavement on 6 in. concrete, etc., (7) North Fairfield Ave. from Peterson to Granville Aves., 2,560 ft. concrete curb, 930 cu.yd. grading, 3,790 sq.yd. asphalt pavement on 6 in. concrete, etc., (8) West 50th Pl. from Hoyne Ave. to Western Ave. Blvd., 3,252 ft. concrete curb, 1,350 cu.yd. grading, 3,200 sq.yd. asphalt pavement on 6 in. concrete, etc., (9) North Harding Ave. from Augusta to Division Sts., 2,460 ft. concrete curb, 250 cu.yd. grading, 3,280 sq.yd. asphalt pavement on 6 in. concrete, etc., (10) Keystone St. from West End to Park Aves., 800 ft. concrete curb, 500 cu.yd. grading, 1,250 sq.yd. asphalt pavement on 6 in. concrete, etc. (11) Moffat St. from Western Ave. to Rockwell St., 2,480 ft. concrete curb, 1,350 cu.yd. grading, 3,830 sq.yd. asphalt on 6 in. concrete, etc., (12) North Oakley Blvd. from Berteau to Cullom Sts., 1,260 ft. concrete curb, 700 cu.yd. grading, 1,820 sq.yd. asphalt on 6 in. concrete, (13) sections of North Fairfield, California, Glenlake, Granville and Rosemont Aves., 9,660 ft. concrete curb, 8,000 cu.yd. grading, 18,400 sq.yd. asphalt pavement on 6 in. concrete, etc., from Contg. & Material Co., 3219 South Michigan Ave., (1) $4,000, (2) $9,388, (3) $6,068; Central Paving Co., 179 West Washington St., (1) $4,065, (2) $9,388, (3) $6,068, (4) $5,588; J. Dillon & Co., 179 West Washington St., (1) $4,075, (2) $9,252, (3) $5,969, (4) $5,692; J. A. Ross & Co., 4561 Armitage Ave., (4) $5,481; R. F. Conway Co., 133 West Washington St., (5) $12,376, (6) $28,904, (7) $22,394, (8) $31,222, (9) $22,842, (10) $7,804, (11) $23,921, (12) $11,641, (13) $109,827; Amer. Asphalt Paving Co., 133 West Washington St., (5) $12,495, (6) $29,589, (7) $22,734, (8) $31,263, (9) $22,365, (10) $7,700, (11) $24,098, (12) $11,870, (13) $112,369; White Paving Co., 17 North La Salle St., (5) $12,524, (6) $29,245, (7) $22,738, (13) $110,677.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids July 8, paving (1) South Avers Ave. from Roosevelt Rd. to West 14th St., involving 2,610 ft. concrete curb, 1,600 cu.yd. grading, 4,300 sq.yd. asphalt pavement on 6 in. concrete, etc., (2) East 50th St. from Ellis to Woodlawn Aves., 2,400 ft. concrete curb, 2,250 cu.yd. grading, 4,250 sq.yd. asphalt pavement on 6 in. concrete, etc., (3) North Leamington Ave. from West North Ave. to Hirsch St., 2,580 ft. concrete curb, 1,300 cu.yd. grading, 4,120 sq.yd. asphalt pavement on 6 in. concrete, etc., (4) North Lorel Ave. from West North Ave. to Hirsch St., 2,580 ft. concrete curb, 2,000 cu.yd. grading, 4,120 sq.yd. asphalt pavement on 6 in. concrete, etc., 70 ft. 10 in. tile sewer, etc., (5) West 104th St. from Wentworth Ave. to point 970 ft. west, 2,090 ft. concrete curb, 1,900 cu.yd. grading, 3,380 sq.yd. 10 in. blast furnace slag, etc., (6) Trumbull Ave. from Augusta St. to West Grand Blvd., 1,100 ft. concrete curb, 600 cu.yd. grading, 1,500 sq.yd. asphalt pavement on 6 in. concrete, etc., (7) Winona St. from North Clark St. to Bway., 4,520 ft. concrete curb, 2,590 cu.yd. grading, 7,170 sq.yd. asphalt pavement on 6 in. concrete, etc., (8) sections of School, Henderson and Melrose Sts., Le Claire, La Vergne and Lamon Aves., 15,000 ft. concrete curb, 9,069 cu.yd. grading, 25,080 sq.yd. asphalt pavement on 6 in. concrete, etc., from Amer. Asphalt Paving Co., 133 West Washington St., (1) $28,664, (2) $26,648, (3) $27,891, (4) $26,717, (6) $10,029, (7) $46,520, (8) $171,999; White Paving Co., 17 North La Salle St., (1) $28,885, (2) $26,835, (3) $28,140, (4) $27,034, (6) $10,136, (7) $46,155, (8) $173,280; R. F. Conway Co., 133 West Washington St., (1) $28,900, (2) $26,829, (3) $28,065, (4) $26,922, (6) $10,103, (7) $45,818, (8) $172,378; Farr Bros. Co., 356 West 111th St., (5) $19,323; J. A. Sackley Co., 133 West Washington St., (5) $19,440.

Wisconsin—State Highway Comn., at div. office 7, Court House, Rhinelander, received only bid July 9, from Van der Boom Constr. Co., 120 Pelican-Crandon Rd., Federal Aid Project 73, Forest Co., involving 13,167 cu. yd. earth excav., at $0.88 per cu.yd., 80.5 cu.yd. concrete in culverts, $28, 62,823 sq.yd. gravel surfacing $0.40, 4.82 acres clearing and grubbing, $200, etc., total cost, $40,526, county to furnish 6,956 cu.yd. material for surfacing, $26,436; Crandon-Laona Rd., Federal Aid Project 55, Forest Co., 14,345 cu.yd. earth excav., $1.20, 95.3 cu.yd. concrete in culverts, $28, 44,868 sq.yd. gravel surfacing, $0.42, 13.3 acres clearing and grubbing, $200, etc., $41,886, county to furnish 4,780 cu.yd. material for surfacing, $19,024. Noted July 1.

Wisconsin—State Highway Dept., at div. office 5, Court House, La Crosse, received bids July 8, improving 7.19 mi. Whitehall-Ettrick Rd., Federal Aid Project 120, Trempealeau Co., from Mason & Metzgar, Blair, $48,640. Work involves 32,096 cu.yd. earth excav., at $0.55 per cu.yd., 2,850 cu.yd. rock excav., $1.25, 661 cu.yd. concrete in culverts, $28, 0.4 acre clearing and grubbing, $40, 4,572 cu.yd. borrow excav., $0.55, 108.5 cu.yd. Class "A" concrete, $28, etc. Noted July 1.

Wisconsin—State Highway Dept., at div. office 5, Court House, La Crosse, received bids July 8, improving 3.76 mi. Black River Falls-Sparta Rd., Federal Aid Project 105, Monroe Co., involving (a) 14,169 cu.yd. earth excav., (b) 112.5 cu.yd. concrete in culverts, (c) 35,622 sq.yd. 16 ft. shale surfacing, (d) 219 cu.yd. borrow excav., etc., from Jordon Bros., New Albion, (a) $0.54, (b) $36, (c) $0.64, (d) $0.54, etc., $35,043; J. Young, Leon, (a) $0.65, (b) $35, (c) $0.60, (d) $0.65, etc., total cost, $35,122. Noted July 1.

★**Wisconsin**—State Highway Dept., Madison, will pave 3.63 mi. Portage-Baraboo Rd., Federal Aid Project 177, Sauk Co. Work will be done by day labor under supervision of J. H. Gunnison, asst. engr. Noted July 8.

★**Minn., Caledonia**—Houston Co. let contract graveling 20 mi. Federal Aid Project 147, 24 ft. wide, to Thornton Bros., 304 Central Bank Bldg., St. Paul, 226,630.

★**Minn., Faribault**—Rice Co. let contract paving 23 stations, State Rd. 6, 24 ft. wide, concrete, to Schruth & Jackson, 633 Plymouth Bldg., Minneapolis. About $28,700. Noted Jan. 8.

★**Minn., Faribault**—Rice Co. let contract grading 9.8 mi. County Job 2,002, 24 ft. wide, involving 75,078 cu.yd. excav., 157 cu. yd. rein.-con., 1,442 lin.ft. 15-24 in. culverts, also 5.4 mi. County Job 2,001, 24 ft. wide, to J. Sampson, St. James, $59,645 and $36,617 respectively. Noted April 1.

★**Minn., St. Paul**—City let contract paving 7,000 lin.ft. various streets in MacAlester Park, involving 60,502 sq.yd. sheet asphalt and 6,757 sq.yd. creosoted block, also 4,063 lin.ft. Cleveland St. from University to Marshall Aves., creosoted wood block on asphalt base, to Fielding & Shepley, 216 University Ave., $253,000 and $93,998 respectively.

★**Kan., Girard**—Crawford Co. let contract grading and building culverts on 2.98 mi. Federal Aid Project 40, Sects. H and I, 18 ft. wide to Maxwell Constr. Co., Columbus, $44,450. Work involves 250 cu.yd. concrete, 39,000 cu.yd. earth excav. and 5½ ton steel.

Kan., Troy—Doniphan Co. received bids July 12, grading and building bridges and culverts on 6.1 mi. Pikes Peak Highway, Federal Aid Project 52, Sects. A, B, C and Z, 18 ft. wide, from Hybskman & Wiley, Seneca, $39,675; Central Constr. Co., Kansas City, Mo., $44,590; C. L. Dolman, 1231 West St., Topeka, $52,072. Noted June 24.

★**Mo., Clayton**—St. Louis Co. let contract grading and paving .57 mi. Susan Ave from Telegraph Rd. to Blow Ave. 12 ft. wide, Telford macadam, to J. Dillon, Clayton, $6,267; grading and building bridges on 3.355 mi. Page Ave. to C. Israel, Clayton, $48,948. Noted June 17.

★**Tex., Cooper**—Delta Co. let contract grading, surfacing and draining 11.7 mi. Highway 39 from here to Hunt Co., 14 ft. wide, to Wear, Thomas & Ratcliff, Rogers, $209,234, including 10% for engineering and contingencies and materials furnished by county. Noted July 15.

★**Tex., Georgetown**—Williamson Co. will grade, surface and drain 5.61 mi. Highway 2 from Granger to Bartlett, 16 ft. wide, $34,562. Work will be done by day labor under supervision of S. Moore, comr. Precinct 3. Noted July 1.

Tex., San Angelo—Tom Green Co. received bids June 30, grading, surfacing and draining, 10 mi. Highway 9 and 9-A, 16 ft. wide, from C. T. Paul, co. judge (representing Tom Green Co.), $170,397; W. H. Martin, San Angelo, $171,597; Brown & Root, Taylor, $300,448. Noted June 24.

★**New Mexico**—State Highway Dept., Capitol Bldg., Santa Fe, let contract grading, surfacing and building structures on 3.902 mi. Federal Aid Project 31 Sierra Co., to Kennedy, Steel & Gilbert, Hillsboro, $21,097, plus 10% for engineering and contingencies; 15.228 mi. Federal Aid Project 47, Grant Co., to La Roe & Burgess, Palestine, Tex., $119,396, plus 10% for engineering and contingencies. Noted June 24.

Streets and Roads (Continued)

★**New Mexico**—State Highway Dept., Capitol Bldg., Santa Fe, let contracts building 15.084 mi. Federal Aid Project 32, including bridges, San Miguel Co., also 12.706 mi. Federal Aid Project 33, including bridges, Mora Co., to J. V. Stryker Constr. Co., Denver, Col., $141,108 and $176,269 respectively, plus 10% for engineering and contingencies. Noted June 24.

★**Ariz., Tombstone**—Bd. Supervs. Cochise Co. let contract grading 6.0198 mi. Sect. E Benson-Vail Highway, Federal Aid Project 18, to Eckerman & Chambers, Tombstone, $77,445. Work involves 7,850 cu.yd. unclassified excav. (surfacing included), at $0.52 per cu.yd., 9,750 cu.yd. borrow (surfacing included), $0.52, 10,440 cu.yd. unclassified excav. (surfacing not included), $0.52, 8,280 cu.yd. borrow (surfacing not included), $0.52, 1,120 cu.yd. unclassified excav. for structures, $1.50, 1,180 cu.yd. unclassified excav. for ditching and channel changes, $0.52, 250 cu.yd. levees, $0.52, 23,480 lb. reinforcing steel, $0.04, 305 lin.ft. 24 in. and 75 lin.ft. 30 in corrugated metal pipe, $1 and $1.20 respectively, 162 cu.yd. Class "A" and 13 cu.yd. Class "C" concrete for bridges, $25 and $18 respectively, 256 cu.yd. Class "A" concrete for bridges and culverts, $25, 118 cu.yd. rubble concrete for bridges and culverts, $20, 362 cu.yd. Class "A" and 79 cu.yd. Class "C" concrete for fords, $20 and $18 respectively.

Ariz., Tucson—Bd. Supervs., Pima Co., received bids July 3, building Sect. B, Benson-Vail Highway, Federal Aid Project 18, from Cotey & Black, Clifton, $168,877. Work involves 29,345 cu.yd. unclassified excav. in roadway, $2.50 per cu.yd., 27,365 cu.yd. unclassified excav. in borrow, $1.50, 1,475 cu.yd. unclassified excav. for structures, $3, 1,670 cu.yd. ditching and channel changes, $1.50, 537 cu.yd. Class "A" concrete for structures over 20 ft. span, $25, 124 cu.yd. rubble concrete, $20, 88 cu.yd. Class "A" concrete in bridges and slab culverts with structures less than 20 ft. span, $20, 163 cu.yd. rubble concrete in bridges, $20, 84 cu.yd. Class "A" concrete in arch and box culverts, $30, 29 cu.yd. Class "B" concrete in arch culverts, $30, 22 cu.yd. Class "B" concrete in slab culverts, $20, 325 cu.yd. Class "A" and 70 cu.yd. Class "C" concrete in fords, $20, 46,342 lb. reinforcing steel, $0.04. Building Mescal Wash Bridge on above highway, involving (a) 840 cu.yd. unclassified excav., (b) 406 cu.yd. Class "A" concrete, (c) 64 cu.yd. Class "B" concrete, (d) 28,592 lb. reinforcing steel, from English & Pierce, 17 West Adams St., Phoenix, (a) $1.75 per cu.yd., (b) $24, (c) $24, (d) $0.04, total $17,347; N. E. Carter, Box 1491, Tucson, (a) $1.65, (b) $26.47, (c) $24.47, (d) $0.03, $18,202. State furnishes cement and steel and amount of bids does not include 10 per cent for engineering and contingencies. Noted July 17.

Wash., Everett—City received bids July 7, grading and paving California St. et al, from J. W. Hoover, 1607 Hoyt St., $25,222; E. Bancroft, 3024 Kromer St., $26,042; Fosdick & Refsness, Everett, $26,343.

★**Wash., Port Angeles**—City let contract paving, curbing, building retaining walls, storm and sanitary sewers, drains, etc., in 4,280 lin.ft. Lincoln, 1st, Front and Laurel Sts., 51 ft. wide, concrete, to Woods Bros., Port Angeles, $196,717.

Wash., Seattle—City received only bid July 10, grading and filling 4th Ave. S. et al, involving 333,000 cu.yd. earthwork and embankment, etc., from Grant Smith Co., Henry Bldg., $225,462.

Ore, Portland—City received bids July 7, paving (a) Kerby St. from Portland Blvd. to Dekum Ave., (b) Baltimore St. from Bradford to Crawford Sts., (c) macadamizing College St. from 12th to 16th Sts., (d) building sewer in Killingsworth Ave. from East 8th to East 9th Sts., (e) East 23rd St. from Sumner to Alberta Sta., (f) building Buchanan and Jersey Sts. sewerage System, (g) 41st Ave. S. E. from 56th St. S.E. to 41st Ave. S.E. Sewerage System. (1) 2 in. asphalt concrete top on 4 in. crushed rock base, (2) concrete No. 3, 7 in. thick, (4) asphaltic concrete No. 2, 2 in. top on 4 in. base, (5) cement, (6) vitr. pipe, from United Constr. Co., Northwest Bank Bldg., (a1) $2.30 per sq.yd., total $12,145, (b4) $2.65 per sq.yd., $4,718; Cochran Bros., 415 South Syracuse St., (a2) 2.35 per sq.yd., $11,910, (b3) $2.75 per sq.yd., $4,759; Hahn & Rebman, Portland, (b3) $2.80 per sq.yd $4,633; N. Costanzo, 651 Bway., (c) $7. per sq.yd., $6,685; Joseph & Son, Portland, (d5) $1,484, (e5) $1,093, (g5) $729; Portland Realty & Trust Co., Ry. Exch. Bldg., (d5) $1,513, (e5) $1,046, (g5) $672; Mehemarie & Co., Portland, (d5) $1,527, (e5) $1,117, (f6) $7,020, (g5) $646; Azar & Co., (f5) $8,149; J. Keating, (f5) $8,643.

★**Que., Hull**—City let contract paving Main and Maisonneuve Sts., asphalt, to Ottawa Constr. Co., Central Chambers, Elgin St., Ottawa. About $30,000; cost plus 15%. E. Bedard, City Hall, engr.

★**Ont., Stratford**—City let contract resurfacing various streets with asphalt and removing old asphalt blocks, to Standard Paving Co., Central Chambers, Elgin St., Ottawa. About $45,000.

★**Ont., Walkerville**—Town let contract paving various streets, to Warren Bituminous Paving Co., McKinnon Bldg., Toronto. About $80,500.

Railways

PROPOSED WORK

Ohio.—Cleveland Ry Co., Leader-News Bldg., Cleveland, plan to relay 1,500 ft. double track on Clifton Blvd. from West 117th St. to West Clifton Blvd., involving rock excav., concrete and slag ballast and mass concrete. About $160,405. G. Radcliffe, mgr. H. Clark, ch. engr.

New Brunswick—Canadian National Ry., Ottawa, plans to rearrange yard and build extension for 700 cars, at St. John. About $240,000. C. B. Brown, Moncton, ch. engr.

Quebec—Canadian Government Ry., Ottawa, receives bids in August, building new road from Alfred to St. Ursule. About $2,000,200. H. Kingsland, 160 St. James St., Montreal, engr.

Ontario—Canadian Government Ry., Ottawa, receives bids in August building line from Canadian Natl. R.R. main line 1 mi. east of Harrowsmith, along Valley of Mud Creek to join main line of Grand Trunk at point west of Collins Bay. About $300,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Michigan**—Street Ry. Comn., 410 City Hall, let contracts to J. A. Mercier, 216 Hammond Bldg., Detroit, building Charlevoix-Buchanan Route, involving 62,500 cu.yd. excav., 75,000 sq.yd. 8½ in. concrete foundation, 59,600 ft. 6 in. drain tile, etc., also St. Jean-Shoemaker and Montclair Line, 21,500 cu.yd. excav., 26,300 sq.yd. foundation, 21,300 ft. 6 in. drain tile, etc., $605,531 and $164,730 respectively; to J. Porath, 23 McGraw Bldg., Detroit, Warren Ave. West Line, 10,830 cu.yd. excav., 13,932 sq.yd. foundation, 9,100 ft. 6 in. tile, etc., $78,019; to Lennane Bros., Union Trust Bldg., Detroit, Charlevoix Ave. from Connors Ave. to Detroit Terminal Ry., 3,070 cu.yd. excav., 2,600 sq.yd. foundation, 1,640 ft drain tile, etc., $19,269; to Loraine Steel Co., Loraine, O., furnishing 4,150 ton 91 lb. rail, 307,174 lb. tie rods, 43,080 lb. ¾ in. nuts, 577 kegs track spikes, 704 pair rail splices, 2,158 lb. 1 in. bolts, 80 pieces special work, $553,392. Noted July 15.

★**Missouri**—Kansas City and Leeds Electric Ry., 309 Massachusetts Bldg., Kansas City, let contract building 3 mi. double track including necessary appurtenances from 31st and Hardesty Sts., Kansas City, to Leeds, etc., to Clinton Constr. Co., c/o W. Winner, Kansas City, ch. engr. Noted June 17.

Excavation and Dredging

PROPOSED WORK

Miss., Senatobia—Ditching—Strayhorn Creek D. D. plans to enlarge creek and dig cutoffs in hill valley stream to reclaim land. Work involves about 20 mi. ditching. Southern Eng. Co., Clarksdale, engrs.

B. C., Grand Forks—Irrigation—Provincial Government, Victoria, had detailed surveys made and receives bids in August for installing system in Grand Forks Valley to irrigate 50,000 acres near here. About $350,000.

Wis., Kansasville—Drainage—Racine Co. D. D. (Racine), having plans prepared draining 1,500 acres here, using 6-30 in. tile. J. English, secy. M. Dodge, Washington Bldg., Madison, engr.

Mont., Shelby—Irrigation—Irrigation Dist., Toole Co., plans to irrigate 500,000 acres of land. H. Gerharz, Shelby, chief engr.

BIDS DESIRED

Tenn., Somerville—Drainage—Until Aug. 2, by Bd. Dirs. Cypress Creek D.D. of Fayette and Shelby Counties, clearing right of way of main canal and laterals, involving 348,600 cy.yd. excav.

Ky., Madisonville—Ditches—Until July 31, by Hopkins Co., Drainage Bd., building Greazy Creek Ditch, near here. C. Riddle, secy.; advertised in this issue.

Ill., Mt. Carmel—Levee—Until Aug. 7, by Levee Comrs. Rochester and McClearys Bluff Levee Dist., Wabash Co., at office of A. Kinnard, circuit clk., rebuilding 3½ mi. old levee, to include strengthening and enlargening, involving 82,000 cu.yd. excav. also constructing 6 mi. new levee, 325,000 cu.yd. excav., and clearing 16½ acres right-of-way. G. C. Harvey, Mt. Carmel, engr.

Ia., Sioux City—Ditch—Until Aug. 3, by W. M. Prichard, aud, Woodbury Co., building 15,967 ft. Maple River Ditch in Maple River D. D. 1, 18 ft. wide, involving 16,000 cu.yd. excav. C. E. Carlson, Battle Creek, engr.

Ia., Waterloo—Ditch—Until Aug. 2, by Bd. Supervs. Black Hawk Co., for tile and open ditch work in Sects. 1-5, D. D. 7, involving 82,357 ft. tile, 10,500 cu.yd. excav. etc. J. A. Francis, co. aud. A. E. Michel, Algona, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Emmetsburg**—Drainage—Palo Alto Co. let following contracts for building D. D. 132; open work, involving 48,030 cu.yd. excav., to Wilson Bros., Benson, Minn., furnishing 14,344 ft. 6-24 in. tile, to Shadbolt & Middleton, Emmetsburg, labor on tile ditches, to A. Eikenwold, Emmetsburg.

★**Ia., Montezuma**—Drainage—Central State Eng. Co., Muscatine, and W. C. McKee, aud. Poweshiek Co., let contract building Bear Creek D. D. 1, involving 476,960 cu.yd. excav., to C. A. Walb, La Grange, Ind.; Bear Creek D. D. 2, 239,443 cu.yd. excav., to Matthews Bros., Galt. Noted June 24.

Industrial Works

PROPOSED WORK

Mass., Boston—Boston & Maine R. R., North Sta., soon lets contract building 2 story, 60 x 120 ft., brick and mill construction, freight station, at Warren Bridge on Warren Ave. H. B. Fletcher, c/o owners, archts.

Mass., Boston—Haven & Crosby, archts. and engrs., 40 Court St., soon let contract building 3 story, 80 x 240 ft., rein.-con. and steel plant, concrete foundation, on Causeway St., for W. F. Schrafft & Sons Corp., 160 Washington St. About $200,000. Noted July 8.

Mass., Cambridge—J. C. Spofford, archt., 36 Bromfield St., Boston, soon lets contract building 6 story, 100 x 100 ft., rein.-con. plant, rein.-con. flooring, concrete foundation, on Main St., here, for Suffolk Engraving & Electrotyping Co., 394 Atlantic Ave., Boston. About $225,000.

Mass., Chelsea (Boston P. O.)—Walker Bros. Dyeing & Bleaching Co., Clinton St., plans to build plant on Bway. and Clinton St., to replace one recently destroyed by fire. About $50,000. Architect not selected.

Mass., Danvers—Commonwealth of Massachusetts, Comn. on Mental Diseases, 36 State House, Boston, having plans prepared by Kendall, Taylor & Co., archts. and engrs., 93 Federal St., Boston, for 1 story, brick, steel and concrete power plant at State Insane Hospital, here. About $250,000.

Mass., Dorchester (Boston P. O.)—M. H. Maney, archt., 16 Paisley Park, soon lets contract building 1 story, 95 x 165 ft., brick and concrete addition to garage, rein.-con. flooring, concrete foundation, on Holmes Ave., for Byrne Realty Co., 435 Geneva Ave. About $50,000. Noted July 15.

Mass., Fitchburg—Fitchburg Gas & Electric Co. plans to remodel and build addition to plant. About $600,000. C. Tenney, 201 Devonshire St., Boston, engr.

Mass., New Bedford—K. C. Richmond, archt. and engr., 526 Grosvenor Bldg., Providence, R. I., soon lets contract building 4 story, 100 x 120 ft., brick and steel storehouse, concrete foundation, on Purchase St., for Beacon Mfg. Co. About $175,000.

Mass., New Bedford—LaBrode & Ballard, archts., 255 Union St., soon let contract building 2 story, brick and concrete service station, rein.-con. flooring, concrete foundation, on Purchase St., for Motor Sales Co., 514 Pleasant St. About $100,000.

Mass., New Bedford—J. C. Rhodes & Co., Inc., 123 Front St., soon lets contract building 4 story, brick and steel addition to plant, concrete foundation, on Front and 4th Sts. About $150,000. Private plans.

Mass., Salem—J. J. McAuliffe and W. J. Fox, 150 Washington St., plans to build 1 story, brick, concrete and steel garage, on Washington and Norman Sts. About $50,000. Architect not selected.

Mass., Taunton—Municipal Lighting Comn. plans to build large 1 story, brick, steel and concrete addition to electric light plant, on West Water St. Architect will be named shortly.

R. I., Providence—Lockwood, Greene & Co., engrs. and archts., 60 Federal St., Boston, soon lets contract building 2 story, 110 x 175 ft., rein.-con. dye house, rein.-con. flooring, concrete foundation, for Franklin

Industrial Works (Continued)

Process Co., 29 Promenade St. About $150,-000. Noted May 20.

R. I., Woonsocket—Lafayette Worsted Co., Hamlet Ave., having plans prepared by W. F. Fontaine, archt., Federal Bldg., for 2 story, 135 x 250 ft., brick and mill construction addition to plant, concrete foundation. About $200,000.

Conn., Bridgeport — Economy Mfg. Co., 556 Main St., plans to build brick and steel factory, on Brewster St. About $75,-000. Architect not selected.

Conn., Bridgeport—Westcott & Mapes, Inc., engrs. and archts., 207 Orange St., New Haven, soon receive bids building 1 story, 140 x 150 ft., brick, concrete and steel power plant, rein.-con. flooring, concrete foundation, on East Main St., here, for United Illuminating Co., 84 Temple St., New Haven. About $1,500,000.

Conn., Hartford—Comrs. Fire Dept. soon let contract building 2 story, 50 x 125 ft., brick and concrete machine shop, rein.-con. flooring, concrete foundation, on John St. About $125,000. Whiton & McMahon, 36 Pearl St., archts. Noted May 27.

Conn., Hartford—D. D'Amico, 503 Albany Ave., having plans prepared by D. A. Guerriero, archt., 647 Main St., for 2 story, 80 x 80 ft., brick, concrete and steel garage, rein.-con. flooring, concrete foundation, on Morgan St. About $50,000.

Conn., Montville—R. Gair & Co., 50 Washington St., New York City, having revised plans prepared by W. Higginson archt. and engr., 18 East 41st St., New York City, for 2 story addition to waste paper plant, rein.-con. and steel, rein.-con. flooring, concrete foundation, here. About $500,000.

Conn., New Haven—Natl. Folding Box & Paper Co., James St., plans to build addition to plant. Architect not selected.

Conn., Stamford—Perfection Enameling & Painting Co., Main and Grove Sts., plans to build 3 story, 100 x 125 ft., concrete and steel plant. Private plans.

N. Y., Freeport—Village plans to improve lighting system. About $63,000.

N. J., Jersey City—Amer. Butterine Co., 107 Hudson St., had plans and specifications prepared for 4 story, rein.-con. factory, office, etc., on 8th and Henderson Sts. About $100,000.

Pa., Norristown—Wildman Mfg. Co. soon lets contract building addition to foundry, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $75,000. Lockwood, Green & Co., 101 Park Ave., New York City, archts. and engrs.

Pa., Scranton — Bour Refractories Co., Laurel Line and Front St., plans to build 3 story, 90 x 200 ft., rein.-con. and steel refractories, rein.-con. flooring, rock foundation, on Stafford Ave. About $300,000. Architect not selected.

Pa., Scranton—Edison Lamp Co. plans to build 3 story, 100 x 100 ft. bulb blowing plant, brick and steel, rein.-con. flooring, rock foundation, on Washington Ave. About $200,000. Architect not selected.

Va., Richmond—A. G. Jones, 1418 East Main St., having plans prepared by Moores & Dunford, archts., 38 South Dearborn St., Chicago, for 7 story, 70 x 150 ft., rein.-con. and brick warehouse, rein.-con. flooring, concrete foundation. About $400,000.

N. C., Forest City—Florence Mills having plans prepared by J. E. Sirrine, archt. and engr., Greenville, S. C., for 3 story, 50 x 80 ft. mill construction plant.

N. C., Four Oaks—Ivanhoe Mfg. Co., Smithfield, plans to build 1 story, 40 x 50 ft. mill, also warehouse and small heating plant, here, mill construction. J. E. Sirrine, Greenville, S. C., engr.

S. C., Fairmont—Fairmont Mfg. Co. having plans prepared by J. E. Sirrine, archt. and engr., Greenville, for 2 story 40 x 80 ft. warehouse and 1 story 40 x 80 ft. wastehouse, mill construction.

La., New Orleans—Presto-Lite Co., 30 East 42nd St., New York City, plans to build 2 story, concrete, brick and steel acetylene plant on Anthony and St. Louis Sts., here. About $200,000.

O., Cincinnati — Edwards Mfg. Co., 3rd and Eggleston Aves., having plans prepared for 4 or 6 story, 95 x 308 ft. warehouse.

O., Cincinnati—Lunken Window Co., 4018 Cherry St., plans to build 2 story, 25 x 100 ft. factory.

O., Cleveland—J. Laronge Co., c/o J. H. Dickman, 214 Williamson Bldg., having plans prepared by J. L. Weinberg, archt., Schofield Bldg., for 1 story, 50 x 120 ft., brick and steel garage, rein.-con. flooring, brick foundation, on East 16th St. and St. Clair Ave. About $75,000.

O., Cleveland—Waiter Ice Co., c/o A. C. Bishop, archt. and engr. Guardian Bldg., having plans prepared for a 1 story, 45 x 146 ft. brick and steel plant, brick foundation, on West 25th St. About $75,000.

Ind., East Chicago—Carrol Castings Co. purchased site and plans to build plant along tracks of Indiana Harbor Belt R.R.

Ind., Hammond — Union R.R. Equipment Co., 332 South Michigan Ave., Chicago, having plans prepared by F. D. Chase, Inc., archts and engrs., 645 North Michigan Ave., Chicago, for 1 story, 75 x 125 ft., forge shop, concrete, brick and steel, concrete foundation. About $125,000.

Ind., Indianapolis — U. S. Corrugated Fiber Box Co., Martindale and Roosevelt Aves., having plans prepared by C. E. Bacon, archt., 617 Merchants Bank Bldg., for 4 story, 100 x 160 ft., rein.-con., and brick factory, rein.-con. flooring. About $125,000.

Ind., Mooresville—Van Briggle Mfg. Co., 429 North Capitol Ave., Indianapolis, had plans prepared by C. E. Bacon, archt., 617 Merchants Bank Bldg., Indianapolis, for 4 story, 80 x 300 ft., rein.-con., steel and brick factory and office. About $225,000.

Ill., De Kalb—Vassar Swiss Underwear Co., 2545 Diversey St., Chicago, having plans preparing by F. D. Chase, Inc., engr., 645 North Michigan Ave., Chicago, remodeling 1 story, rein.-con. armory, here, into knitting mill. About $50,000.

Wis., Ft. Washington—Turner Mfg. Co. having plans prepared by F. D. Chase, Inc., engr., 645 North Michigan Ave., Chicago, for 1 story, brick and steel foundry, concrete foundation. About $75,000.

Wis., Kenosha—Greiner-Nash Co., 266 Wisconsin St., plans to build 1 story, 80 x 162 ft., concrete and brick garage and repair shop, concrete flooring and foundation, on Chicago St. Architect and engineer not selected.

Wis., Pickett—A. H. Fortnum, c/o State Bank of Ripon, Ripon, plans to build 3 story, 50 x 100 ft. canning factory and 2 story, 100 x 100 ft. warehouse. About $75,000.

Wis., Port Wing—T. N. Okerstrom retained J. C. Jacobson, engr., 533 Metropolitan Bank Bldg., Minneapolis, to prepare plans for power plant and high dam, on Iron River, 160 ft. long, 75 ft. head, to develop 16,000 hp. About $200,000.

Minn., Minneapolis—Russell Grader Mfg. Co., 2037 University Ave., S. E., having plans prepared by E. R. Ludwin, and Sund & Dunham, archts., 512 Essex Bldg., for 1 story, 424 x 600 ft. rein.-con., brick and steel factory on Kennedy St., near Stinson Blvd. About $250,000. Noted Mar. 18.

Tex., Port Arthur—Eastern Texas Electric Co. plans to build addition to generating station, cost, $600,000; also install 4,000 k.w. turbo-generator, two 665 h.p. boilers with auxiliary equipment and pumps. J. Bowers, supt., Stone & Webster, Inc., 147 Milk St., Boston, Mass., engrs.

Que., Levis—Levis Pulp & Paper Co. receives bids about Aug. 1 building mill on St. Romauld Rd. About $500,000. Address, Engineer, c/o J. Breakley, Breakerville St., Levis.

Que., Montreal—Standard Iron & Chemical Co., 524 Ambrose St., soon receives bids building 4 story, brick and steel addition to plant, concrete foundation. Cost to exceed $100,000.

Que., Westmount—See "Streets & Roads."

Ont., London—Grand Trunk Ry. Dundas St., is preparing plans and soon receives bids for reclamation yards, including 3 buildings equipped with machinery for salvaging wrecked and worn-out cars. About $300,000. F. L. C. Bond, Montreal, Que., ch. engr.

Ont., Port Arthur—Kaministiquia Pulp & Paper Co. having plans prepared by C. D. Howe, engr., Port Arthur, for timber mill, concrete foundation, of 30 ton daily capacity. About $1,000,000.

Ont., Toronto—Canada Bread Co., Ltd., 160 Avenue Rd., having plans prepared by McCormack Co., archts. and engrs., Century Bldg., Pittsburgh, Pa., for 2 story, 82 x 182 ft. bakery and 3 story, 52 x 81 ft. stable, both rein.-con., rein.-con. flooring. Cost between $300,000 and $400,000.

SEWERAGE SYSTEM—FT. MADISON, IOWA

Bids were received by city or constructing sanitary sewerage system, from (A) National Constr. Co., Davenport, (awarded contract); (B) Tibbetts & Pleasant, 202 Daniels Bldg., Tulsa, Okla.; (C) O. P. Herrick, 704 Observatory Bldg., Des Moines. The unit bids were as follows:

	A	B	C
102,585 lin.ft. furnishing and laying 8-in. standard sewer pipe	$0.55	$0.59	$0.85
16,370 lin.ft. furnishing and laying 10-in. standard sewer pipe	.70	.73	.85
3,005 lin.ft. furnishing and laying 12-in. standard sewer pipe	.85	.93	1.05
4,864 lin.ft. furnishing and laying 15-in. standard sewer pipe	1.10	1.23	1.35
1,170 lin.ft. furnishing and laying 18-in. standard sewer pipe	1.35	1.37	1.50
4,945 lin.ft. furnishing and laying 15-in. D.S. sewer pipe	1.35	1.37	1.50
3,930 lin.ft. furnishing and laying 18-in. D.S. sewer pipe	1.60	1.63	1.75
683 lin.ft. furnishing and laying 24-in. D.S. sewer pipe	2.96	2.81	2.95
15,905 lin.ft. excavating and refilling trench, 0 to 6 ft	1.00	1.13	1.05
22,950 lin.ft. excavating and refilling trench, 6 to 8 ft	1.10	1.37	1.30
49,990 lin.ft. excavating and refilling trench, 8 to 10 ft	1.35	1.68	1.90
27,230 lin.ft. excavating and refilling trench, 10 to 12 ft	2.25	2.06	2.00
13,290 lin.ft. excavating and refilling trench, 12 to 14 ft	3.00	2.85	2.80
5,130 lin.ft. excavating and refilling trench, 14 to 16 ft	4.50	4.06	4.00
1,945 lin.ft. excavating and refilling trench, 16 to 20 ft	7.60	6.85	6.80
420 lin.ft. excavating and refilling trench, 20 to 24 ft	10.00	8.85	8.80
3,060 lin.ft. excavating 6 in. on 8 in. standard Y-connection	.90	.93	1.00
445 excavating 6 in. on 10 in. standard Y-connection	1.25	1.23	1.25
20 excavating 6 in. on 12 in. standard Y-connection	1.65	1.57	1.50
70 excavating 6 in. on 15 in. standard Y-connection	2.25	2.40	2.50
20 excavating 6 in. on 18 in. standard Y-connection	3.00	2.90	3.00
170 excavating 6 in. on 15 in. D.S. Y-connection	2.75	2.85	3.00
70 excavating 6 in. on 18 in. D.S. Y-connection	3.50	3.95	4.00
6 excavating 6 in. on 24 in. D.S. Y-connection	6.00	6.60	6.00
260 lin.ft. furnishing and laying 6-in. c.i. pipe, Class "A"	4.50	4.20	4.00
380 lin.ft. furnishing and laying 8-in. c.i. pipe, Class "D"	7.50	6.85	6.00
996 lin.ft. furnishing and laying 14-in. c.i. pipe, Class "D"	12.10	11.85	10.00
12 lin.ft. furnishing and laying 24-in. c.i. pipe, Class "D"	16.00	19.50	20.00
301 manholes	100.00	103.00	100.00
21 lampholes	38.00	39.00	40.00
77 flushtanks	150.00	165.00	150.00
6 old manholes converted into flushtanks	75.00	78.00	80.00
23 old outlets converted into lampholes	29.00	29.00	25.00
1,590 sq.yd. brick paving—concrete base	5.15	5.90	6.00
1,720 sq.yd. two course brick paving	5.00	5.63	5.50
345 sq.yd. macadam paving	3.15	3.45	3.50
150 sq.yd. concrete paving	3.50	4.45	4.50
27 sq.yd. Class "B" concrete	25.50	29.00	28.00
15,000 ft. lumber in trench, b.m.	95.00	100.00	110.00
5,000 lin.ft. ½-in. foot connection installed complete	.90	1.00	.90
10,000 lin.ft. ¾-in. foot connection installed complete	1.00	1.10	1.15
Bluff St. ejector sta., as per plans (lump sum)	7,646.00	10,445.00	10,000.00
Miller St. ejector sta. (lump sum)	17,244.00	23,200.00	23,000.00
Equipment at Bluff St. station (lump sum)	6,550.00	6,420.00	6,500.00
Equipment at Miller St. station (lump sum)	11,465.00	11,235.00	11,000.00
100 cu.yd. earth excavation Bluff St. station	2.50	2.30	2.50
16 cu.yd. Class "B" concrete, Bluff St. station	30.00	30.00	30.00
250 cu.yd. earth excavation, Miller St. station	2.75	2.30	2.50
95 cu.yd. Class "A" concrete, Miller St. station	35.00	35.00	30.00
30 cu.yd. Class "B" concrete, Miller St. station	30.00	30.00	25.00
15,000 lb. reinforcing steel, Miller St. station	.095	.10	.09
Make of ejector equipment	P.F.T.	P.F.T.	P.F.T.
Extended totals	$487,248	$520,671	$552,139

BIDS DESIRED

Mass., Watertown—Lockwood Green & Co., engrs. and archts., 60 Federal St., Boston, receiving bids building 1 story, 200 x 230 ft., brick and mill construction foundry, rein.-con. flooring, concrete foundation, for Walker & Pratt Mfg. Co., 31 Union St., Boston.

Industrial Works (Continued)

La., New Orleans—Packers Architectural & Eng. Co., archts. and engrs., 431 South Dearborn St., Chicago, Ill., receiving bids constructing packing plant, here, including 2 story, 100 x 198 ft. main building, 1 story, 57 x 67 ft. power house and 2 story, 24 x 36 ft. reduction plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, for Arabi Packing Co. About $400,000.

Ky., Louisville—Dixie Belle Refining Co., 701 Inter. Sou. Bldg., receiving bids building refinery on Western Parkway. About $500,000. C. B. Haun, c/o Dixie Belle Refining Co., archt. Noted July 15.

O., Cleveland—Until July 30, by Christian-Schwarzenberg & Gaede, archts., 1900 Euclid Ave., building 1 story, 150 x 200 ft. brick and steel warehouse on Kraukau Ave., for Fishel & Marks, East 68th St. and Krakau Ave. About $100,000.

O., Cleveland—Until Aug. 2, by Waite Taxi & Livery Co., 1467 East 6th St., building 2 story, 66 x 280 ft., rein.-con., steel and brick garage, rein.-con. flooring, brick foundation, on Superior Ave., near East 12th St. About $200,000. Noted May 6.

O., East Cleveland (Cleveland P. O.)—Until July 30, by Bd. Educ., building 1 story, 48 x 66 ft. heating plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at Prospect School. C. Ammerman, clk. About $100,000. Noted July 8.

Ill., Chicago — Henshein & McLaren, archts., 37 West Van Buren St., receiving bids building 3 story, 115 x 170 ft., rein.-con. and brick packing plant, rein.-con. flooring, concrete foundation, on West 39th St. and Emerald Ave., for D. Levi & Co., West 40th St. and Packers Ave. About $350,000.

Mo., Kansas City—Kansas City Macaroni Co., 401 Grand Ave., receiving bids building 4 story, 50 x 100 ft., rein.-con. stone and brick factory, rein.-con. flooring, on Pacific and Campbell Sts. About $50,000. H. F. Brandenburger, 517 Mur Bldg., archt.

Wash., Prosser — Nyburg & Galliven Fruit Co., Box 297, receiving bids building cold storage plant. About $75,000.

Que., Montreal—Hudon Hebert Co. Ltd., 18 De Bres St., receiving bids building 2 story, 40 x 72 ft. concrete, brick and steel garage, concrete foundation on Papineau Ave. About $50,000. C. Dufort, 195 St. Catharine St., archt.

Ont., Ft. William—Until Aug. 1, by J. G. Sutherland, archt., City Natl. Bank Bldg., Dayton, O., building mill at mouth of Mission River, for Ft. William Pulp & Paper Co., Ltd., Ft. William. About $1,000,000.

Ont. Port Arthur—Until Aug. 15, by Nipigon Fibre & Paper Mills, Ltd., building 40 ton mill in Nipigon Dist. About $200,000. J. A. Little, Port Arthur, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates Award of Contract)

★**Me., Augusta**—State Highway Comn., Augusta, let contract building 2 and 3 story, 80 x 410 ft., brick and rein.-con. garage and machine shop, rein.-con. flooring, concrete foundation, on Grove St., to T. F. Moreau & Co., 468 Lisbon St., Lewiston. About $250,000.

★**Me., Lewiston**—See "Buildings."

★**Mass., Brookline**—B. Davies, Albany any Oswego Sts., Boston, will build 1 story, 70 x 220 ft., brick and concrete garage, rein.-con. flooring, concrete foundation, on Brainerd Rd. About $80,000. Work will be done by day labor. Noted July 8.

★**Mass., Chicopee Falls**—Chicopee Mfg. Co., West Main St., let contract building 1 story, 150 x 250 ft. weave shed, brick and steel, rein.-con. flooring, concrete foundation, to F. T. Ley & Co., Inc., 499 Main St., Springfield. About $130,000.

★**Mass., Fall River**—New England Oil Co. will build 17 x 25 ft. oil receiver house, 32 x 74 ft. and 45 x 181 ft. oil condensers, 20 x 95 ft. and 61 x 125 ft. oil stills and 24 x 40 ft. addition to boiler house, all 1 story, brick, concrete and steel, rein.-con. flooring, concrete foundations, along Taunton River. About $100,000. Work will be done by day labor.

★**Mass., Holyoke**—New England Tire & Rubber Co., 285 High St., let contract building 3 story, 110 x 210 ft., brick and steel factory on Main St., to Casper Ranger Constr. Co., 20 Bond St. About $350,000. Noted July 8.

★**Mass., Lynn**—General Electric Co., 84 State St., let contract building 1 story, brick, concrete and steel plant, rein.-con. flooring, concrete foundation, to C. W. Wright, 23 Central Ave. About $100,000. Noted June 17.

★**Mass., Springfield** — Westinghouse Electric & Mfg. Co., Page Blvd., will build 1 and 2 story, 125 x 160 ft., brick and concrete foundry, concrete foundation. About $60,000. Work will be done by day labor.

★**Conn., Cedar Hill** (New Haven P. O.)—New York, New Haven & Hartford R. R. will build 1 story, 100 x 160 ft., brick and concrete addition to machine shops, here. About $60,000. Work will be done by day labor.

★**Conn., Hartford**—Hartford Auto Club Garage Co., 36 Pearl St., will build 7 story, 147 x 150 ft., brick, rein.-con. and steel garage, club, showroom and office, rein.-con. flooring, concrete foundation, on Hicks and South Ann Sts. About $500,000. Work will be done by day labor. Noted June 3.

★**N. Y., Brooklyn**—W. Wrigley, Jr., Metropolitan Ave., let contract building 87 x 380 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, to Barney-Ahlers, 110 West 40th St., New York City. About $100,000.

★**N. Y., Long Island City**—McEvoy & Smith, archts. and engrs., Queens Plaza Court, let contract to G. Violante, Astoria, building rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Ely and Sunswick Aves., for Hellman Motor Corp., c/o architects. About $75,000. Noted June 10.

★**N. Y., Long Island City**—Stein-Hall & Co., Inc., 61 Bway., New York City, let contract building 4 story, rein.-con. and steel factory, rein.-con flooring, concrete foundation, on 6th and Jackson Aves., here, to Turner Constr. Co., 244 Madison Ave., New York City. About $400,000.

★**N. Y., New York**—Hill-Ware Co., c/o McCormick Co., archts. and engrs., 41 Park Row, let contract building brick, steel and concrete bakery, rein.-con. flooring, concrete foundation, on 165th St. and Park Ave., to Niewenhous Bros., Inc., 316-318 East 161st St. About $100,000. Noted July 1.

★**N. Y., New York**—H. Kauffman & Sons, 206 Division St., will build 3 story, 25 x 150 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on South St. About $75,000. Work will be done by day labor.

★**N. J., Bound Brook**—C. H. Pierce Estate let contract building 1 story, 75 x 215 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to Levering & Garrigues, 552 West 23rd St., New York City. About $50,000.

★**N. J., Camden**—Victor Talking Machine Co., Front and Cooper Sts., let contract building 1 story, 400 x 430 ft. concrete warehouse on River Ave. and State St. to Turner Constr. Co., 1713 Sansom St., Phila. Noted May 13.

★**Pa., Cedar Grove** (Phila. P. O.)—J. F. Stokes, 17th and Cambria Sts., let contract building 1 story, 90 x 160 ft. and 140 x 300 ft. chemical plant, brick and steel, to J. N. Gill, Otis Bldg., Phila.

★**Pa., Phila.**—L. Brenner & Sons & Perloff, 837 North American St., let contract building 6 story, 100 x 160 ft., rein.-con. warehouse on Delaware and Poplar Sts. to Cramp & Co., Denckla Bldg. About $200,000.

★**Pa., Scranton**—Amer. Grocery Co. let contract building 3 story, 50 x 100 ft. wholesale grocery, brick and steel, rock foundation, on Dockash St., to Barrett Eng. Co., Real Estate Bldg. About $100,000.

★**Pa., Scranton**—Bosak Mfg. Co. let contract building 3 story, 55 x 137 ft., rein.-con. and steel factory, rein.-con. flooring, rock foundation, on South Washington Ave., to H. Beilman, Ash St. About $201,000.

★**Pa., Scranton**—Linder Bros. let contract building 3 story, 90 x 160 ft. garment factory, brick and steel, rock foundation, on Capouse and Poplar Sts., to E. A. Fuller Co., Dickson Ave. About $155,000.

★**Pa., Scranton**—Scranton Button Co., 409 Cherry St., let contract building 1 story, 85 x 85 ft., brick and timber factory, rock foundation, on Washington Ave., to Washburn-Williams Co., Meridian St. About $50,000.

★**Md., Baltimore**—Canton Co., Commerce and Water Sts., let contract building 6 story, 80 x 153 ft., rein.-con. and brick addition to warehouse, concrete foundation, on 12th Ave. and 6th St., to Sanford & Brooks Co., 24 Commerce St. About $100,000, cost plus percentage basis.

★**O., Cleveland**—Cleveland Electric Illuminating Co., Illuminating Bldg., let contracts buiding two 2 story additions to sub stations, one 40 x 66 ft., at 2002 East 65th St. and one 36 x 49 ft., at 1753 East 17th St., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to F. E. Hanselman, 408 Illuminating Bldg., $75,000 and $60,000 respectively.

★**O., Cleveland** — Natl. Lamp Co., Nela Park, East Cleveland, let contract building 1 story, 50 x 100 ft., rein.-con., steel and brick garage, rein.-con. flooring, concrete foundation, on East 45th St. and Hough Ave., to S. Emerson Co., 1900 Euclid Ave. About $75,000.

★**O., Cleveland**—W. D. Sixt, c/o S. H. White, archt., Schofield Bldg., let contract building 2 story, 60 x 110 ft., rein.-con. steel and brick garage and sales room, rein.-con. flooring, concrete foundation, at 6820 Euclid Ave., to E. Wetzig, 650 East 125th St. About $100,000. Noted June 24.

★**O., Middletown**—Advance Bag Co., 15 North Bway., let contract building 3 story 65 x 300 ft., rein.-con., steel and brick addition to factory, brick and concrete foundation, to J. R. Stevens, Odd Fellows Temple, Cincinnati. $150,000.

★**Ind., Indianapolis**—McCoy & Garten, 515 South Senate St., let contract building 3 story, 81 x 190 ft., rein.-con. and steel warehouse, on South St., to Bedford Stone & Constr. Co., Fletcher Saving & Trust Bldg. About $300,000; cost plus percentage basis.

★**Ind., Indianapolis**—Pioneer Brass Wks., 424 South Pennsylvania St., let contract building 1 story, 200 x 300 ft., rein.-con. brick and steel factory, rein.-con. flooring, on 23rd St. along tracks of Lake Erie & Western R. R., to J. G. Karstedt Constr. Co., 429 Lemcke Bldg.; cost plus percentage basis.

★**Ind., West Hammond** — La Salle Iron Wks., 2305 South Halsted St., Chicago, let general contract building 1 story, 210 x 360 ft., brick and steel plant, concrete foundation, to Broline-Nolan Co., 8 South Dearborn St., Chicago. About $650,000, including equipment. Noted June 24.

★**Mich., Detroit**—Walker Saxe Motor Car Co., 1525 Gratiot Ave., let contract building 1 story, 119 x 135 ft., rein.-con., brick and steel garage and service station, rein.-con. flooring, concrete foundation, to J. Bollin Co., 906 Bellevue Ave. About $50,000.

Mich., Detroit—Water Bd. received bids furnishing labor and material building 1 story, 90 x 120 ft. machine shop, brick and steel, rein.-con. flooring, concrete foundation, from Martin & Krausmann Co., 747 Garland Ave., $20,916; Hanna, Zabriski & Daron, 1856 Penobscot Bldg., $24,250.

★**Mich., Kalamazoo**—R. E. Fair, Rose and Water Sts., let contract building 2 story, 100 x 175 ft., concrete and brick service station and storage, to A. J. De Koning, Kalamazoo. About $110,000.

★**Mich., Pontiac**—Pontiac Oakland Sales Co. let contract building garage and show room, to I. J. Isrigg, High School Bldg. About $60,000.

★**Ill., Chicago**—Abbot Laboratories, 4753 Ravenswood Ave., will construct chemical manufacturing plant, to include ten 1 story buildings, rein.-con., concrete foundations, to cover 55,000 sq.ft. floor space, at 4800 Ravenswood Ave. About $225,000. Work will be done by day labor.

★**Ill., Chicago**—Ajax Forge Co., 2503 Blue Island Ave., let contract building 65 x 200 ft. and 80 x 400 ft. forge plant, also small boiler shop, brick and steel, concrete foundations on Hoyne and Blue Island Aves., to C. B. Johnson & Son, 111 West Washington St. About $300,000.

★**Wis., Waukesha** — Waukesha Casting Co., 340 Bway., let steel contract for 1 story 120 x 130 ft., brick and steel foundry, concrete flooring and foundation, to Federal Bridge Co., Lincoln Ave. About $50,000. Noted July 15.

★**Mo., St. Louis**—Columbia Taxi Cab Co., 4539 Delmar Blvd., let contract building 1 story, 150 x 150 ft., brick and steel garage, to Kellerman Constr. Co., Victoria Bldg. About $100,000.

★**Mo., St. Louis**—Ralston-Purina Co., 821 South 8th St., let contract building 5 story, flour and feed mill, rein.-con. and brick, on 8th and Gratiot Sts., to Fruin Colson Constr. Co., Merchants Laclede Bldg. About $50,000.

★**Ont., Oakville**—Oakville Basket and Veneer Wks., will build 3 story, 80 x 170 ft. concrete and brick factory, concrete foundation, on Lake Shore Rd. About $150,000. Work will be done by day labor. Noted April 1.

★**Ont., Toronto**—Grinnell Co., Ltd., let contract building 1 story, 100 x 150 ft., rein.-con., brick and steel foundry, rein.-con. flooring, concrete foundation, to Anglin-Norcross Co., Ltd., Toronto. Noted Mar. 18.

Buildings

PROPOSED WORK

Vt., Pittsford — Hospital—Vermont Sanitorium plans to build hospital. About $250,000. Architect not selected.

Mass., Arlington (Boston P. O.)—High School—School Com. soon receives bids building 3 story, 65 x 140 ft., brick and

Buildings (Continued)

...el, on Massachusetts Ave. About $150,000. H. B. S. Prescott, 12 Pearl St., Boston, archt. Noted July 8.

Mass., Brighton (Boston P. O.)—School—Bd. Educ., Boston, plans to build 2 story, 10 room brick, concrete and steel addition to Thomas Gardner School, here. About $225,000. Architect not selected.

Mass., Brockton—Theatre—A. H. Bowditch, archt. and engr., 44 Bromfield St., Boston, soon lets contract building 2 story, 70 x 190 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Main St., for Dreyfus & Bardol, 17 Milk St., Boston. About $300,000. Noted May 20.

Mass., Dorchester (Boston P. O.)—School—Bd. Educ., Boston, plans to build 2 story, 12 room, brick, concrete and steel school in Mather School Dist., cost $250,000 and brick, rein.-con. and steel addition to Edward Everett School, on Northampton St., $200,000. Architect not selected.

Mass., East Boston (Boston P. O.)—School—Bd. Educ., Boston, plans to build brick, rein.-con. and steel addition to Emerson School, here. About $300,000. Architect not selected.

Mass., Holyoke — Business — Holyoke Water Power Co., 1 Canal St., plans to construct brick and concrete, on Dwight St. About $150,000. Architect not selected.

Mass., Jamaica Plain (Boston P. O.)—Theatre—F. Green, 37 Tremont St., Boston having plans prepared by W. Dykeman, archt., 120 Tremont St., Boston, for 1 story, brick and steel, rein.-con. flooring, concrete foundation, on Hyde Sq., here. About $150,000.

Mass., Malden (Boston P. O.)—Business—Trafton Realty Co., Common Sq., plans to build 5 story, brick, rein.-con. and steel About $150,000. Architect not selected.

Mass., Montague — Theatre and Store — Perry & MacNaughton, archts., 19 Congress St., Boston, soon let contract building 1 and 2 story, 70 x 100 ft., brick and steel, concrete foundation, here, for D. J. Shea, Turners Falls. About $100,000. Noted May 27.

Mass., Northampton—Auditorium—Smith College plans to build brick, concrete and steel, on campus. About $150,000. W. A. Neilson, pres. Architect not selected.

Mass., Palmer—Housing-Wickwire—Spencer Steel Corp., 69 Hammond St., Worcester, plans to build 2 story, frame houses for workmen, concrete foundations, near plant, here. About $125,000. Private plans.

Mass., Quincy (Boston P. O.)—Dormitory—Eastern Nazarene College, Wollaston Park, plans to build 3 story, 40 x 120 ft., brick and steel. About $125,000. Architect will be named soon.

Mass., Roxbury (Boston P. O.)—School—Bd. Educ., Boston, plans to build 2 story, 20 room, brick, concrete and steel high school, here. About $400,000. Architect not selected.

Mass., Roxbury (Boston P. O.)—School-Bd. Educ., Boston, having plans prepared by J. E. Ritchie, archt., 8 Beacon St., Boston, for 2 story, brick, limestone and steel, on Paulding St., here. About $242,000.

Mass., Roxbury—Theatre—Humbolt Ave. Theatre Corp., c/o D. H. Brand, 245 Humbolt Ave., having plans prepared by Funk & Wilcox, archts., 1148 Old South Bldg., Boston, for 2 story, brick and steel. About $150,000.

Mass., Sharon—School—School Bd. having plans prepared by Monks & Johnson, archts., 99 Chauncey St., Boston, for 3 story, brick and steel. About $100,000.

Mass., South Byfield — School — Dummer Academy plans to build 3 story brick and concrete. About $150,000. Architect not selected.

Mass., Springfield—High School — Bd. Educ. having plans prepared by H. L. Sprague, archt., 310 Main St., for 3 story, brick, concrete and steel, on State St. About $800,000.

Mass., Wakefield — High School — Bd. Educ. rejected bids building 3 story, 208 x 250 ft., on Main St. About $450,000. Project postponed. F. I. Cooper Corp., 33 Cornhill St., Boston, archts. Noted June 3.

Mass., West Roxbury (Boston P. O.)—School—Bd. Educ., Boston, rejected only bid and will have revised plans prepared by Andrews, Rantoul & Jones, archts., 50 Congress St., Boston, for 3 story, brick and steel addition to Mary Lyons High School, rein.-con. flooring, concrete foundation, on Elm St., here. About $165,000. Noted June 17.

Mass., Williamstown — Community — Town having plans prepared by G. C. Harding, archt., 7 North St., Pittsfield, for 2 story, brick and limestone, on Main St. About $100,000.

Mass., Williamstown—School—School Bd. plans to build 2 story, 10 room, brick and steel, on School St. About $125,000. Architect not selected.

Conn., Hartford — Hospital — St. Francis Hospital plans to alter present building and construct 3 story, brick, rein.-con. and steel ward buildings, rein.-con. flooring, concrete foundations on Woodland St. About $500,000. Private plans.

Conn., Hartford—School—I. A. Allen, Jr., Inc., archts. and engrs., 904 Main St., rejected bids received July 1, building 3 story, 108 x 139 ft., on Talcott St., for Bd. Educ. About $600,000. Project postponed indefinitely. W. E. Cone, 89 Asylum St., chn.

Conn., Meriden—Hospital—Meriden City Hospital, Cook Ave., plans to alter and build addition to hospital. About $300,000. Architect not selected.

Conn., Milford—Hospital—Milford Hospital, Inc. having plans prepared by J. W. Skinner, archt., 1188 Main St., Bridgeport, for 3 story, brick, concrete and steel. About $100,000.

1500 Years to replace U. S. Railways

In the first half of 1920 contracts let for trackwork on the steam railways of the United States amounted to $3,600,000, both for extension of route and for switching, according to the 14 tracklaying contracts that have been noted in the construction pages of *Engineering News-Record*.

Accepting 20 billion dollars as being the total valuation of the railways, the trackage would be valued at about $5,400,000,000.

At the present rate of construction, present prices persisting, the railway system of the United States could be replaced in 1500 years.

Are the railways keeping pace with the other industries?

Conn., New Haven—Hospital—New Haven Hospital soon lets contract for additions to present hospital and constructing new buildings to include private room ward, children's ward, nurses' building, also home and service building, brick, rein.-con. and steel, rein.-con. flooring, concrete foundations, on Cedar St. About $1,100,000. C. S. Palmer, 191 Church St., archt.

Conn., New Haven—Office—City plans to construct large office building. D. Fitzgerald, mayor. Architect not selected.

Conn., Orange—School—Western School Dist. rejected bids building 2 story, 65 x 90 ft., on Seaview Ave. About $100,000. Plans will be revised and work readvertised. D. E. Smith, 207 Orange St., New Haven, archt. Noted June 17.

Conn., Waterbury — Hospital — L. A. Walsh, archt. and engr., 51 Leavenworth St., soon lets contract building 3 story, 60 x 135 ft., brick, concrete and steel, rein.-con flooring, concrete foundation, on Franklin St., for St. Mary's Hospital. About $500,000. Noted April 1.

Conn., Westport—Fire House, etc.—E. T. Bedford, Green Farms, soon lets contract constructing 2 story, brick, concrete and steel firehouse and Y. M. C. A. building, rein.-con. flooring, concrete foundation, on State St. About $250,000. W. B. Tubby, 81 Fulton St., New York City, archt.

N. Y., Annandale — College — Stephens College having plans prepared by Hoppin & Koen, archts. and engrs., 4 East 43rd St., New York City, for several small college buildings, brick and stone, brick foundation. About $600,000.

N. Y., New York—Office—F. Begrisch and C. L. Acker, 200 Bway., having plans prepared by R. H. Almiroty, archt. and engr., 46 West 46th St., for 12 story, brick, steel and stone, concrete foundation, on 36th St. and 5th Ave. About $3,500,000. Noted May 20.

N. J., Collingswood (Camden P. O.)—School—Bd. Educ. plans to build 2 story, 75 x 110 ft., brick. About $160,000. I. Davis, 1713 Sansom St., Phila., archt.

N. J., Garfield (Passaic P. O.)—School—Bd. Educ. opens bids about Aug. 15, building 2 story, 83 x 150 ft., on Lincoln Pl. About $225,000. A. L. Vegliante, archt.

N. J., Jersey City—Office—See "Industrial Works."

N. J., Newark—School—Bd. Educ. having plans prepared by J. H. and W. C. Ely, archts. and engrs., Firemans Trust Bldg., for 4 story, 106 x 128 ft. addition to Carteret School, on Oliver St., concrete and brick. Cost to exceed $100,000. Noted May 20.

Pa., Altoona—Temple—Jaffa Temple, 707 Chestnut Ave., having preliminary plans prepared by R. G. Schmid & Co., archts., Randolph St., Chicago, Ill., for 3 story, 133 x 149 ft. addition, brick, steel and stone. About $200,000. D. A. Little, 1309 7th Ave., member bldg. com.

Pa., Kingston (Wilkes-Barre P. O.)—School—St. Hedwig Roman Catholic Parish Assn. having plans prepared by Morris & MacHale, archts., Burr Bldg., Scranton, for 2 story, 50 x 212 ft., brick and stone, rock foundation. About $150,000.

Pa., McKeesport — School — Bd. Educ. plans to build Centennial School, 2 story, 20 room, brick. About $350,000. W. T. Norton, secy.

Pa., Phila.—College—Temple University, 18th and Buttonwood Sts., having plans prepared by P. H. Johnson, archt. and engr., 1713 Sansom St., for 6 story, 300 x 300 ft., brick and stone, on Montgomery and Broad Sts. About $500,000.

Pa., Phila.—Nurses Home—J. B. Stetson Hat Co., Montgomery and 5th Sts., plans to build 4 story, 35 x 60 ft., brick, at 1200 North 4th St. About $100,000. Private plans.

Md., Baltimore—Bank and Office—Title Guarantee & Trust Co., St. Paul and Lexington Sts., having plans prepared by J. E. Sperry, archt., 409 Calvert Bldg., altering Hoffman Bldg. in rear, for own use. About $125,000.

Md., Baltimore—Office—H. B. Wolf, 110 East Lexington St., and others, plan to build 15-20 story, 150 x 200 ft., concrete, brick and steel, concrete foundation, on Lexington and Calvert Sts.

Md., Baltimore — School — City having plans prepared by C. N. Friz, archt., 814 Lexington Bldg., for 3 story, 125 x 150 ft., brick and stone concrete foundation, on 33rd St. and Hillen Rd. About $200,000. C. L. Reeder, Park Ave. and Saratoga St., engr.

N. C., Asheville—Hospital—A. T. Pritchard and others plan to build modern general hospital, brick. About $150,000. Architect not selected.

N. C., Asheville—Hotel—Bd. Trade plans to build hotel. About $1,000,000. N. Buckner, secy.

N. C., Charlotte — School — City voted $750,000 bonds to build new schools.

N. C., Greensboro—Passenger Station—City plans election to vote on $1,300,000 bond issue. This amount will be loaned to Southern R.R. to build passenger depot.

S. C., Anderson — Bank — Citizen Natl. Bank having plans prepared by J. J. Baldwin, archt., Anderson, for bank. About $100,000.

Tenn., Nashville—Home—Methodist Episcopal Church, South, plans to build new home. About $1,000,000. Architect not selected.

Buildings (Continued)

Ky., Covington — Hospital — Booth Memorial Hospital, 2nd and Kennedy Sts., plans to build 4 story, 93 x 190 ft. brick addition, rock foundation. About $250,000. B. T. Wisenall, 1643 Reading Rd., archt.

Ky., Louisville—Masonic Home—Masonic Grand Lodge plans to build home. About $1,000,000. Architect not selected.

O., Akron—Business Block—Portage Taxi & Baggage Co., 11 South High St., having plans prepared for 10 story, 66 x 132 ft., on South High St. About $200,000. Architect's name withheld.

O., Akron—Hotel—Portage Hotel plans to alter and build 200 room addition, on Main and Market Sts. About $300,000.

O., Akron—Theater and Office—J. H. Romweber, 720 East Market St., plans to build 3 story, concrete, steel and brick, on Brown and East Market Sts. About $150,000.

O., Alliance—Auditorium and Gymnasium —Mount Union College had plans prepared by Walker and Weeks, archts., 1900 Euclid Ave., Cleveland, for 2 story, 100 x 150 ft., brick, on Hartshorn St. About $200,000.

O., Alliance — Hospital—City plans to build 2 story, rein.-con. and brick addition, on College St. About $140,000.

O., Carthage (Cincinnati P. O.) — Hospital—Comrs. Hamilton Co. having plans prepared by Elzner & Anderson, archts., 4th and Main Sts., for 2 story, 150 x 358 ft., brick addition to Longview Hospital. About $400,000.

O., Cincinnati — Lodge — Knights of Columbus, 6th and Sycamore Sts., purchased site and plan to build lodge, on 9th St. About $250,000.

O., Cleveland—Bank—Midland Bank plans to build 1 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $100,000. Address W. H. Minton, Hollenden Hotel Arcade. Architect not selected.

O., Cleveland—Commercial—T. Coughlin, East 6th St. and Rockwell Ave., plans to build 2 story, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, at 2613 Detroit Ave. About $100,000. Architect not selected.

O., Cleveland—Commercial—J. L. Free Land Co., 1004 Prospect Ave., plans to build 4 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Prospect Ave. near East 32nd St. About $200,000. J. L. Free, pres. Private plans.

O., Cleveland—Commercial—B. Reuben, Plymouth Bldg., plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Lakeside Ave. near East 17th St. About $100,000. Architect not selected.

O., Cleveland—Commercial, R. E. Rickson, c/o Ulmer & Berne, Amer. Trust Bldg., purchased site on Euclid Ave. and East 17th St., and plans to build 3 story, rein.-con. flooring, concrte foundation. About $150,000. Architect and engineer not selected.

O., Cleveland — Commercial and Club Rooms—Ohio Athletic Assn., c/o T. Ferry, 2151 Scranton Rd., plans to build 8 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Euclid Ave. and East 32nd St. About $400,000. Architect not selected.

O., Cleveland—Commercial and Garage—C. A. Forster, c/o Packard Cleveland Motor Car Co., 5206 Prospect Ave., plans to build 2 story, 75 x 180 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 6612 Euclid Ave. About $200,000. Architect not selected.

O., Cleveland—Hospital—St. Alexis Hospital, Bway. and McBride Ave., plans to build 4 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation. About $450,000. Address C. A. Grasselli, chn. Bldg. Comn. W. C. Jansen, Electric Bldg., archt.

O., Cleveland—Lodge—Order of Maccabees, c/o O. C. Loughner, 10815 Churchill Ave., plans to build 2 story, 80 x 120 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Superior Ave. About $100,000. Architect and Engineer not selected.

O., Cuyahoga Falls — Lodge — Cuyahoga Falls Masonic Temple plans to build 4 story on Hollway and 2nd Sts. About $200,000.

O., Elyria — School — Bd. Educ. having plans prepared by R. S. Silsbee, archt., Lorain Co. Bank Bldg., for 2 story, on Gulf St., also 2 story addition on Clark St., both rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $250,000 and $150,000 respectively.

O., Lakewood (Cleveland P. O.)—Nurses Home—Lakewood Hospital Assn., 14537 Detroit Ave., plans to build 2 story, rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $100,000. A. Cross, pres. Architect not selected.

O., Miamisburg—High School—Bd. Educ. having plans prepared by F. L. Packard, archt., New Hayden Bldg., Columbus, for 2 story, 120 x 140 ft., brick and concrete. About $200,000.

O., Oxford—Hospital, Library and chemical—Miami University plans to construct additions to library and chemistry building, also build hospital, rein.-con. and brick, concrete foundation. About $25,000, $40,000 and $60,000, respectively.

O., Youngstown—Theatre and Arcade—Steinberg Bros., 307 East Federal St., plan to build theatre and arcade, on East Federal St. About $210,000.

Ind., Brazil—Theatre—Citizens Theatre Co. plans to build 3 story, concrete, steel and brick, on National Ave. About $100,000. Architect not selected.

Ind., Evansville—Theatre—Vendome Theatre Co. having preliminary plans prepared for 2 story, 90 x 145 ft., brick and fireproof construction, on Main St. About $500,000. Architect's name withheld.

Ind., Gary — Hotel — Fulton Realty Co. plans to build 6 story, rein.-con., steel, brick, terra cotta and stone, rock foundation. About $500,000. Architect and engineer not selected.

Ind., Indianapolis—Bank—Bankers' Trust Co., 10 East Market St., plans to remodel building and install banking fixtures and vault. About $100,000. McGuire & Shook, Pythian Bldg., engrs.

Ind., Indianapolis — Clubhouse — Indianapolis Athletic Club having preliminary plans prepared by Bass, Knowlton & Graham, archts., Hume-Mansur Bldg., for 11 story, 127 x 195 ft., rein.-con., brick and steel, rein.-con. flooring, rock foundation, on Meridian St. About $1,400,000.

Ind., Mooresville—Office—See "Industrial Works."

Ind., Terre Haute—Coliseum—Bd. Comrs. Vigo Co. having preliminary plans prepared by Johnson, Miller & Miller, archts., 105 South 7th St., for 2 story, concrete, steel, brick and stone, rein.-con. flooring. About $1,500,000.

Mich., Bessemer—Hotel—Bessemer Hotel Co. plans to build hotel on Moore and Lead Sts. About $100,000. Architect not selected.

Mich., Detroit — Library — Detroit Pub. Library Comn., Library Bldg., having plans prepared by Stratton & Snyder, archts., Union Trust Bldg., for 2 story, 60 x 100 ft. rein.-con., brick and stone, rein.-con. flooring, concrete foundation, on Fort St., near Waterman Ave. About $100,000. Noted Jan. 1.

Mich., Detroit—Temple, Store and Office —Wayne Assembly Order of Amaranth, c/o B. C. Wetzel & Co., archts., Dime Bank Bldg., having plans prepared for 3 story, 45 x 123 ft. and 50 x 118 ft., rein.-con., brick, steel and stone, rein.-con. and wood flooring, on McDougal and Gratiot Aves. About $160,000.

Mich., Gladstone — Church — All Saints' Congregation had plans prepared by G. Arntzen, archt., Escanaba, for 2 story, 60 x 140 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation. About $100,000.

Mich., Pontiac—Church—G. E. Sutton, Crowfoot Bldg., opens bids about July 26, building 1 and 2 story, 75 x 100 ft., brick, stone and steel, brick foundation, on Lincoln Ave., for Bethany Baptist Church. About $100,000. Stahl & Kinsey, 435 Woodward Ave., Detroit, archts.

Mich., Pontiac — Hotel — Woman's Hotel Co. plans to build 4 story brick, concrete and steel, concrete foundation, on Mt. Clemens St. About $100,000. F. W. Warner, chn. Architect not selected.

Ill., Albion—High School—Bd. Educ. having plans prepared by L. H. Osterhage, archt., Vincennes, Ind., for 2 story, 130 x 144 ft. concrete, steel and brick, rock foundation. About $150,000.

Ill., Chicago—Exchange—Holabird & Roche, archts., 104 South Michigan Ave., open bids about Aug. 15, building Wentworth Exchange, 2 story (ultimate 6 story), 50 x 150 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Englewood and Stewart Aves., for Chicago Telephone Co., 212 West Washington St. About $125,000.

Ill., Chicago — Exchange — Holabird & Roche, archts., 104 South Michigan Ave., open bids about Aug. 15, building Oakland Exchange, 2 story, (ultimate 6 story), 50 x 150 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on 44th St. near Drexel Blvd., for Chicago Telephone Co., 212 West Washington St. About $125,000.

Ill., Chicago—Office—W. V. Kelly, c/o C. C. Nimmons & Co., archts., 122 South Michigan Ave., having plans prepared for 5 story, 75 x 100 ft., rein.-con. brick and terra cotta, rein.-con. flooring, concrete foundation, at 546-548 South State St. About $500,000. Bd. Educ., lessee.

Wis., La Crosse—School—Bd. Educ. plans to build Hogan School. About $100,000. W. Luening, pres. Architect not selected.

Wis., Milwaukee—Administration — City plans to build 1 and 2 story, hollow tile concrete foundation, at sanatorium on Blue Mound Rd. Cost between $75,000 and $100,000. C. Malig, city engr.

Wis., Milwaukee — Hospital—Milwaukee Co. plans to build 6 and 8 story, brick, rein.-con., stone and steel, rein.-con. flooring, concrete foundation, on Grand Ave. About $2,000,000. Van Ryn & De Gelleke, Caswell Blk., archts. Noted March 18.

Wis., Milwaukee—Hospital—St. Mary's Hospital, 448 Lake Drive, plans to build rein.-con and brick addition, rein.-con. flooring, concrete foundation. About $200,000. Architect and engineer not selected.

Wis., Racine — Hospital — City having plans prepared by E. B. Funston Co., archts., Robinson Blk., for 2 story, 60 x 120 ft., isolation hospital, concrete and brick, rein.-con. flooring, concrete foundation. About $100,000.

Wis., West Allis (Milwaukee P. O.)—School—St. Aloysius Church, 521 Murray Ave., Milwaukee, had plans prepared by E. Brielmaier & Sons., archts., University Bldg., Milwaukee, for 2 story, 60 x 100 ft., brick and concrete, rein.-con. flooring, concrete foundation, on Greenfield Ave., here. Cost between $75,000 and $100,000. Bids will soon be received on foundation.

Wis., Whitehall—High School—Bd. Educ. plans to build 2 story, 73 x 124 ft., brick. Oppenhamer & Obel, Wausau, archts.

Ia., Des Moines—Temple of Justice—State Bd. Control having plans prepared by Proudfoot, Bird and Rawson, archts., 810 Hubbell Bldg., for 6 story, brick and steel, on State Capitol grounds. About $100,000.

Ia., Dubuque—High School—Bd. Educ. having plans prepared for 3 story, rein.-con., brick and steel junior high school. About $300,000. N. Polan, secy.

Ia., Dubuque—High School—Bd. Educ. having plans prepared by Leitha & Rush, archts., 4th and Main Sts., remodeling high school. About $100,000. N. Polan, secy.

Ia., Iowa City—Library and Chemistry—State Bd. Educ. plans to construct library and chemistry buildings at University, here. About $2,000,000. W. H. Bates, secy.

Ia., Orient — School — Bd. Educ. having revised plans prepared by W. Gordon, archt., Hubbell Bldg., Des Moines, for 2 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $136,000. Noted April 29.

Minn., Mankato—Armory—City plans to build armory. About $125,000. Toltz, King & Day, 1410 Pioneer Bldg., St. Paul, engrs.

Minn., Minneapolis — Administration — State Bd. Control, St. Paul, having plans prepared by C. H. Johnston, archt., 715 Capital Bank Bldg., St. Paul, for 4 story, rein.-con., brick and stone on state University Campus, here. About $1,000,000.

Minn., Minneapolis — High School — Bd. Educ. had plans prepared by E. H. Enger, archt., c/o Bd. Educ., for 4 story, 220 x 300 ft., rein.-con., brick, tile and stone, on 20th Ave., N.E., and Quincy St. About $700,000.

Minn., Minneapolis — Home —Augustana Home for Aged, 1411 10th Ave. S., having plans prepared by Edwins & Edwins, archts., 911 Northwestern Bldg., for 3 story, 60 x 118 ft. rein.-con. and brick, on 10th Ave. S. between 14th and 15th Sts. About $100,000.

Minn., Minneapolis—Store—New England Furniture & Carpet Co., Marquette Ave. and 5th St., plans to remodel 7 story, 156 x 162 ft. brick and steel factory on 1st Ave. N. and 5th St., into store. About $200,000. Architect not selected.

Minn., Olivia—High School—Bd. Educ. rejected bids April 30, building high school. About $200,000. Project postponed. Noted April 22.

Minn., St. Peter—Gymnasium—Gustavus Adolphus College having plans prepared by Magney & Tusler, archts., 450 Builders Exch., Minneapolis, and receives bids in fall, building 2 story, 62 x 92 ft. rein.-con., brick, steel, tile and stone. About $100,000.

Buildings (Continued)

Kan., Kansas City—School—Bd. Educ. had plans prepared by Rose & Peterson, archts., 715 Minnesota Ave., for 2 story, 75 x 95 ft., concrete, stone, brick and steel. About $125,000.

Kan., Lawrence—Hotel—Stock Co. is being formed and having plans prepared by Root, Siemens & Kurfin, archts., 1202 Scarritt Arcade, Kansas City, Mo., for 117 x 125 ft., brick, rein.-con. and steel, rein.-con. flooring. About $300,000.

S. D. Mitchell — Hospital — Sisters of Presentation Order soon receive bids building 3 story, 40 x 160 ft., rein.-con., brick and tile. About $125,000. E. H. Lundie, 530 Endicott Bldg., St. Paul, Minn., archt.

Mont., Miles City—High School—Bd. Trustees Custer Co. plans to build 3 story, brick and concrete high school. About $275,000. G. F. Ingersoll, secy. Noted May 20.

Mo., Liberty — Church — Baptist Church having plans prepared by J. H. Felt & Co., archts, Grand Ave. Temple, Kansas City, for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $150,000.

Tex., Brownsville—Hotel—A. B. Ayres, archt., Bedell Bldg., San Antonio, soon lets contract building 5 story, 50 x 120 ft., rein.-con. and brick, on Main St., here, for C. H. Moore. About $200,000. M. L. Diver, Ave. C and Travis St., St. Antonio, engr. Noted April 29.

Tex., San Antonio—Labor Temple—San Antonio Labor Temple Assn., 120 North St., having plans prepared by F. S. Ankrom, archt. and engr., 324 Hicks Bldg., for 3 story, 80 x 100 ft., concrete, stone and brick, at 120 North St. About $100,000.

Okla., Tulsa—Church—Methodist Episcopal Church having plans prepared by Wright & Wright, archts., 400 1st Natl. Bldg., Kansas City, Mo., for 2 story, brick, rein.-con. and steel, rein.-con flooring, concrete foundation. About $250,000.

Cal., Claremont — Laboratory — Pomona College having plans prepared by J. P. Jamieson, archt. and engr., Security Bldg., St. Louis, Mo., for 2 story, 60 x 200 ft. chemical laboratory, rein.-con., stucco and tile, here. About $200,000.

N. B., St. John Station—Canadian Natl. Ry., Ottawa, plans to build station and grade portion of Mill St. About $150,000 will be expended this year. C. B. Brown, Moncton, ch. engr.

Ont., London—Club House—Great War Veterans Assn., 242 Queens Ave., plans to build 3 story brick, concrete foundation. About $150,000. Architect not selected.

Ont., London—School—Bd. Educ. receives bids about Aug. 1, building 36 room school, on Waterloo St. About $500,000. H. Hayman, pres. L. V. Carrothers, Hydro Bldg., archt. Noted June 3.

BIDS DESIRED

Mass., New Bedford—School—Until July 29, by C. W. Bartlett, chn., Com. on City Property, at office of H. Winslow, clk. of committees, Municipal Bldg., constructing 2 story, brick and limestone, on Summer, North, Mill and Chestnut Sts. N. C. Smith, New Bedford, archt.

Conn., Bristol—High School—Until Aug. 3, by School Comn., building 3 story, "H" shaped, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, at Dunbar Meadows. Cost between $750,000 and $800,000. W. Potter, 22 East 17th St., New York City, archt. Noted March 18.

Conn., Manchester—Recreation and School—Until Aug. 5, by F. Farley, archt. and engr., 333 4th Ave., New York City, building 2 story, 65 x 110 ft., brick and concrete, rein.-con. flooring, concrete foundation, on Cedar St., for 9th School Dist. About $200,000. Noted June 10.

Conn., Waterbury — Armory — Until July 26, by Military Emergency Bd., State Armory, Hartford, building 4 story, 180 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Field St., here. About $400,000. Former bids rejected. L. A. Walsh, 51 Leavenworth St., archt. Noted June 3.

N. Y., New York—Courthouse—Until July 30, by Bd. Estimate & Apportionment, building superstructure of courthouse, on Center, Worth, Baxter and Pearl Sts. Former bids rejected. Noted June 3.

N. J., Camden—Office—Until July 28, by P. A. Davis, archt. and engr., 1713 Sansom St., Phila., building 2 story, 36 x 36 ft. and 36 x 90 ft., concrete and brick, on Federal St., for Camden Fire Insurance Co., 5th and Federal Sts. About $100,000.

Pa., Charleroi—Bank—Until Aug. 2, by W. L. Stoddart, archt. and engr., 9 East 40th St., New York City, for brick and stone, brick foundation, for 1st Natl. Bank of Charleroi. About $500,000. Noted July 1.

Pa., Easton—Dormitory—W. H. Thomas and Martin & Kilpatrick, archts., 130 South 15th St., Phila., receiving bids building 4 story, 105 x 125 ft., brick and stone, for Y. M. C. A., here. Cost to exceed $100,000. Noted March 18.

Pa., Erie—Armory—Until July 30, by Adjutant General, Harrisburg, building 2 story, 116 x 155 ft., brick, steel, stone, terra cotta and tile, rein.-con. flooring, on 6th and Parade Sts. About $200,000. W. G. Wilkins Co., Westinghouse Bldg., Pittsbugh, archts.

Pa., Lower Chichester (Marcus Hook P. O.)—School—Until July 28, by Bd. Educ., building 2 story, 60 x 145 ft., brick and stone, here. About $200,000. V. T. Ritter, North Amer. Bldg., Phila., archt.

Pa., New Wilmington—Gymnasium—Until July 30, by Westminster College, building 2 story, 73 x 180 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $150,000. Thayer & Johnson, 5716 Euclid Ave., Cleveland, O., archts. Noted July 8.

Pa., Oil City—Theatre—Until Aug. 2, by A. W. Johnson, archt. and engr., 469 5th Ave., New York City, building brick and stone, brick foundation, here, for Columbia Realty Corp., c/o architect. About $200,000.

Pa., Phila.—Church—C. W. Bolton, archt., Witherspoon Bldg., receiving bids building 1 story, 65 x 75 ft. stone, on Willows and 56th Sts., for Sherwood United Presbyterian Church, c/o architect. Cost to exceed $100,000.

Pa., Sharon—Theatre—Until Aug. 2, by A. W. Johnson, archt. and engr., 469 5th Ave., New York City, building brick and stone, brick foundation, here, for Columbia Realty Corp., c/o architect. About $200,000.

Ga., Savannah—Schools—Until July 26, by City Bd. Educ. and Chatham Co., building Junior High and Chatham Crescent Schools. C. B. Gibson, supt.

O., East Cleveland (Cleveland P. O.)—School—Until July 30, by Bd. Educ., building 2 story, 12 room, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Mayfair Rd. About $250,000. C. Ammerman, clk. Noted June 3.

O., Prospect—High School—Until August 12, by Bd. Educ., building 2 story, 10 room, brick and concrete. About $125,000. H. B. Mounts, clk. O. D. Howard, 8 E. Broad St., Columbus, archt. Noted June 10.

O., Zanesville—Clubhouse—Until Aug. 2, by Armco Clubhouse Co., 5th St., building 2 story, 166 x 193 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $200,000. F. H. Mueller, Renslar Bldg., Hamilton, archt.

Wis., Tomah—High School, etc.—Until July 27, by Bd. Educ., building 3 story, 50 x 80 ft. addition to high school and 1 story, 30 x 55 ft. boiler house, concrete and brick, rein.-con. flooring, concrete foundation. Cost between $75,000 and $100,000. C. Drowatska, clk. H. C. Haeuser, Colby-Abbott Bldg., Milwaukee, archt. Noted Feb. 26.

Minn., Minneapolis—School—Until Aug. 2, by Bd. Educ., building 2 story, 58 x 158 ft. addition, rein.-con., brick and stone, on 4th Ave., S., and 28th St. About $200,000. E. H. Enger, c/o Bd. Educ., archt.

Minn., Upsala—School—Until July 26, by A. Clark, clk. School Bd., building 2 story, 55 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $110,000. Kelly & Shefchik, 1009 Alworth Bldg., Duluth, archts. and engrs.

N. D., Bismarck—Memorial—Until July 27, by State Bd. Administration, building 3 story, 51 x 100 ft., rein.-con. and Bedford stone, on Capitol grounds. About $200,000. Keith & Burke, Bismarck, archts.

Mo., Columbia—School—Until July 29, by Missouri University, constructing 2 story, 63 x 91 ft. economic building, rein.-con. About $100,000. J. P. Jamieson, Security Bldg., archt.

Que., Montreal—Office—Until Aug. 15, by St. James Realty & Investment Co., St. James St., building 10 story, 50 x 145 ft., brick, steel and stone, concrete foundation on St. Gabriel St. About $400,000.

Que., Montreal—School—Until July 29, by J. P. Labarre, dir. secy. Catholic School Comrs., North Dist., 2060 St. Dennis St., building concrete, brick and steel, on Clarke St. near St. Viteur St. About $160,000.

Ont., London—Hotel—Until Aug. 21, by G. M. Reid, 391 Clarence St., building 16 story, 100 x 180 ft., concrete, brick and steel, on Richmond St. About $1,500,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Augusta**—Dormitory — State let contract building 3 story, 38 x 145 ft., brick and granite, rein.-con. flooring, to O. Nelson Co., 194 Exchange St., Bangor. About $165,000.

★**Me., Augusta**—Hospital—H. S. Coombs, archt., 11 Lisbon St., Lewiston, let contract to O. Nelson Co., 194 Exchange St., Bangor, building 3 story, 38 x 144 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, at State Hospital, here. About $175,000. Noted July 15.

★**Me., Lewiston**—Sales, etc.—Lewiston-Buick Co. let contract construction 3 story, brick and rein.-con. sales and service building, rein.-con. flooring, concrete foundation, on Main St., to J. A. Greenleaf & Sons Co., 20 Washington St., Auburn. About $150,000.

★**Me., Portland** — Hotel — Miller & Mayo, archts., Fidelity Bldg., let contract to Greene & Malone, Portland, altering and building 7 story, 60 x 80 ft., brick and rein.-con. addition, rein.-con. flooring, concrete foundation, for Lafayette Hotel Co., 638 Congress St. About $200,000. Noted May 27.

★**Vt., Barre**—Hospital—Washington Co. Tuberculosis Hospital let contract building 3 story, 50 x 120 ft., brick and steel, to A. B. Lane, 38 Highland Ave. About $100,000. Noted April 29.

★**Vt., Springfield** — Hospital — Springfield Hospital, Inc., let contract building 2 story, 50 x 60 ft. with two 25 x 45 ft. wings, brick and rein.-con., rein.-con. flooring, concrete foundation, to Allen Bros., Amherst, Mass. About $125,000.

★**Mass., Allston** (Boston P. O.)—Sales—Tuck & Gilman, archts., 34 School St., Boston, let contract to H. L. Gilman Co., 34 School St., Boston, for 2 story, 75 x 200 ft. sales and service building and garage, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Fordham Rd., for Tuck, Gilman & Sneider, c/o architects. About $175,000. Noted July 15.

★**Mass., Belchertown**—Dormitory, etc.—Commonwealth of Massachusetts, Comn. on Mental Diseases, 36 State House, Boston, let contract constructing 2 story, 90 x 117 ft., dormitory and 2 story custodial building, at State College, here, to M. I. O'Connor, 86 Main St., Northampton. About $265,000. Noted July 15.

Mass., Haverhill—School—Bd. Educ. received bids building 3 story, 40 x 130 ft. addition to Tilton School, brick and concrete, rein.-con. flooring, concrete foundation, on Grove St., from J. M. Roche, 667 Primrose St., $109,675; Kelly Bros., 30 Pleasant St., $120,875; W. N. Pike & Sons, Inc., 264 Essex St., Lawrence, $123,500. Noted June 3.

★**Mass., Mansfield** — Housing — Mansfield Housing Corp., c/o Bonelli, Adams & Co., 60 State St., Boston, let contract building twenty-five 1 and 2 story, frame houses for workmen, concrete foundations, here, to Bradlee & Chatman Co., 54 Canal St., Boston. About $125,000. Noted June 3.

Mass., Mattapan (Boston P. O.)—Dining Room — Commonwealth of Massachusetts, Comn. of Mental Diseases, 36 State House, Boston, received bids July 13, building 2 story, brick and concrete, rein.-con. flooring, concrete foundation (west group), at State Hospital, here, from F. G. Coburn, 294 Washington St., Boston, $173,464; J. Bowen Co., 184 Dudley St., Roxbury, $175,000. Noted July 1.

Mass., Mattapan (Boston P. O.—Nurses' Home—Commonwealth of Massachusetts, Comn. of Mental Diseases, 36 State House, Boston, received lowest bid building 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation (east group), at State Hospital, here, from F. G. Coburn, 294 Washington St., Boston. $106,270. Noted June 24.

★**Mass., Three Rivers**—Housing-Palmer Mills of Otis Co. let contract building 2 story, frame houses for workmen, concrete foundations, near plant, here, to Flynt Bldg. & Constr. Co., 256 Main St., Palmer. About $100,000.

★**Mass., Three Rivers**—School, etc.—St. Peter and Paul Society let contract building 2 story, 50 x 100 ft. brick and steel, concrete foundation, at Four Corners, to J. S. Toper, 38 Kniffer Ave., Easthampton. About $100,000.

★**Conn., Hartford**—Club, etc.—See "Industrial Works."

Buildings (Continued)

★**Conn., Meriden**—Business—Mag & Atwater, 10 Colony St., will build 3 story, 50 x 100 ft., with two 2 story structures on either side to form arcade, brick and rein.-con., rein.-con. flooring, concrete foundations, on Hanover St. About $100,000. Work will be done by day labor. Noted June 17.

★**Conn., Meriden** — Infirmary—Undercliff State Tuberculosis Sanitorium, West Mount St., let contract building 2 story, 35 x 130 ft. with two 20 x 30 ft. ells, frame, stone and concrete foundations, to L. A. Miller, 22 Church St. About $100,000.

★**Conn., New Britain**—Business—S. Shurberg, 55 Franklin St., will build 4 and 5 story, 95 x 100 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Main St. About $200,000. Work will be done by day labor. Noted July 8.

★**N. Y., Brooklyn**—Bank—East Brooklyn Savings Bank, 643 Myrtle Ave., will build 1 story, 50 x 100 ft., brick, steel and stone, brick foundation, on Bedford and DeKalb Aves. About $110,000. Work will be done by day labor. Noted July 1.

N. Y., Brooklyn—Nurses Home—Dept. Pub. Welfare, Municipal Bldg., New York City, received bids July 15, building and completing additions on grounds of Kings Co. Hospital, Clarkson St., here, from W. Werner Eng. Co., 50 Court St., $216,280; W. Kennedy Co., 215 Montague St., $222,408. Noted July 8.

N. Y., Far Rockaway—School—C. B. J. Snyder, supt. school bldg., Municipal Bldg., New York City, received only bid July 12, altering and building addition to P. S. 39, on State St. between Roanoke and Cleveland Aves., here, from T. Dwyer, Bway. and 216th St., New York City, $134,000. Noted July 8.

★**N. Y., Hudson**—Bank—First Natl. Bank let contract building 1 story, brick and stone, brick foundation, to Criswold Co., 101 Park Ave., New York City. About $150,000.

★**N. Y., New Rochelle**—Theatre—A. W. Johnson, archt. and engr., 469 5th Ave., New York City, let contract to Wells Constr. Co., 237 5th Ave., New York City, building brick and stone, brick foundation, for Columbia Realty Co., c/o architect. About $140,000.

★**Pa., Indiana** — Theatre, Office and Dance Hall—Jefferson Theatre Co. let contract building 3 story, 71 x 201 ft., concrete, brick and steel, to Powell & Justus, Punxsutawney. About $165,000.

★**Pa., Phila.**—Station—City Transit Dept., 1211 Chestnut St., let contract building station on Front and Berk Sts., to W. W. Anstine & Co., 1218 Filbert St., $79,816. Noted June 10 under "Miscellaneous."

★**O., Cleveland**—Sales—See "Industrial Works."

O., Columbus—School—Bd. Educ. received bids July 8, building 2 story, concrete and brick, on Linden Heights, from State Constr. Co., 11 West State St., $218,000; E. H. Latham Co., 60 East Broad St., $224,484. Noted March 4.

O., Columbus—Schools—Bd. Educ. received bids for general contract building (a) 2 story, 110 x 190 ft., on Sullivant Ave., (b) 2 story, 110 x 190 ft., on Taylor Ave., (c) 2 story, 110 x 112 ft. on Fulton St., from Federal Constr. Co., Hartman Bldg., (a) $201,081, (b) $204,931, (c) (if entire building is constructed) $207,234; State Constr. Co., 11 West State St., (a) $217,000; J. Hina, 711 Oakwood Ave., (b) $207,500; E. H. Latham Co., 60 East Broad St., (c) for part of proposed building, $121,074. Noted May 20.

O., Warren—Schools—Bd. Educ., c/o J. Buckwalter, Trumbull Blk., received bids building (a) 2 story, 125 x 150 ft. addition to East Technical High School and (b) 2 story, 110 x 182 ft. addition to West Technical High School, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, from Shustrump Co., Youngstown, (a) $322,212 and (b) $329,869.

O., Youngstown—Hospital—City received low bid building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, from Parish Bros., 217 Wick Ave. About $152,000.

Ind., Indianapolis — School — Bd. School Trustees received bids building 2 story, 24 room, rein.-con., steel and brick, on Martindale Ave., from Cornell Eng. Co., 2611 Cornell Ave., $422,650; C. J. Wacker, Law Bldg.; W. P. Jungclaus & Son, 541 East Georgia St.

Ind., Indianapolis — School — Bd. School Trustees received bids building P. S. 22, 2 story, 12 room, rein.-con., brick and steel, on Talbot Ave., from C. J. Wacker Law Bldg., $248,588; W. P. Jungclaus & Son, 541 East Georgia St.; Schlegle & Roehm, Lombard Bldg.

ROAD WORK—CALIFORNIA

Bids were received by Bd. Superv. of San Diego Co. for paving 9.75 mi. Miss. Rd. No. 1 A, from (A) Hunkin-Conkey Constr. Co., Box 536 (awarded contract); (B) McPeak-Dillon Co., 620 Security Bldg.; (C) Rogers Bros., 350 Merrick; (D) C. H. Hudson, 409 Marsh-Strong Bldg., $339,520. Contractors all of Los Ang. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
Grading and Paving:			
15,255 cu.yd. earth excavation	$1 20	$1 75	$
500 cu.yd. loose rock excavation	2 00	2 00	
1,000 cu.yd. solid rock excavation	3 50	3 00	
2,000 cu.yd. disinf. gran. foundation	1 53	2 00	
14,003 cu.yd. Class "A" concrete	16 53	17 55	
20,000 sq.ft. reinforcing mesh	04	04	
Extended totals	$258,112	$273,596	$304
Bridges and Culverts:			
200 cu.yd. excavation and backfill	$2 00	$2 00	$
136.02 cu.yd. Class "A" concrete	30 00	35 00	
4,031 lb. reinforcing steel	10	15	
Extended totals	$4,884	$5,765	$
Extended grand totals	$262,995	$279,362	$309

★**Ill., Decatur**—Church—St. Paul's Methodist Episcopal Church, 221 North 1st St., will build 2 story, 75 x 100 ft., brick and timber, rock foundation. About $100,000. Work will be done by day labor.

★**Ia., Muscatine**—Theatre, Stores, Cafeteria, etc.—E. M. Henle will build 5 story, 120 x 140 ft., brick, rein.-con. and tile. About $527,000. Work will be done by day labor.

★**Minn., Coleraine** — High School — Independent School Dist. 2 let contract building 2 story, 176 x 208 ft., rein.-con., brick and steel, to Evenson & Utterberg, 552 Builders' Exch., Minneapolis. About $455,000.

★**Minn., St. Paul** — Academy — Sisters of St. Joseph, c/o St. Catherine's College, Cleveland Ave. and Randolph St., let contract building 4 story, 45 x 145 ft. music academy, rein.-con. and brick, on Cleveland Ave. and Randolph St., to J. Hoffman, 190 Forbes Ave. About $147,000.

★**Neb., Omaha** — Church — Westminster Presbyterian Church, 29th and Mason Sts., let contract building 1 and 2 story, 70 x 120 ft., brick, concrete and steel, concrete foundation, on 35th St. and Woolworth Blvd., to McClere Constr. Co., Omaha. About $120,000. Noted May 27.

★**N. D., Fargo**—School and Dormitory—Oak Grove Lutheran Ladies Seminary let contract building 3 story, tile, rein.-con. and Bedford stone, to T. Ortbye, Fargo. About $125,000.

★**Mo., Kansas City**—Bank and Office—Scarritt Estate, Scarritt Bldg., let contract building 2 story, 100 x 100 ft., rein.-con., on 26th and Grand Sts., to Hoffman Bros., Ridge Bldg. About $100,000.

★**Mo., University City** (St. Louis P. O.)—School—Bd. Educ. let contract building 3 story, 60 x 153 ft., brick and steel, on Harvard Ave., to E. C. Gerhard Bldg. Co., Post Dispatch Bldg., St. Louis. About $114,000.

★**Que., Montreal** — School — School Bd. Comm., 83 St. Catherine St., E., let contract building 3 story, 55 x 144 ft., concrete, brick and steel, on Demonitgny St., to J. A. Durocher, 291 Chambly St. About $165,000.

★**Ont., Kitchener** — Theatre — Paramount Theatres, Temple Bldg., let contract building 1 and 2 story, rein.-con. brick, steel and marble, rein-con. flooring, concrete foundation, on Queen St., to P. H. Secord & Sons, 133 Nelson St., Brantford. About $300,000.

Federal Government Work

PROPOSED WORK

N. H., Portsmouth—Welding Shop—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

D. C., Wash.—Extending Bathhouse and Beach—U. S. Engr. Office, War Dept., plans to extend at Tidal Basin Bathing Beach.

Tenn., Nashville—Locks and Dams—U. S. Engr. Office, 4th and 1st Natl. Bank Bldg., having surveys made and sites investigated for purpose of constructing 4 locks and dams on Cumberland River. R. Ralston, dist. engr.

Mich., Mt. Pleasant—Power and Heating Plant—Bureau of Indian Affairs, Wash., D. C., plans to build at school, here.

Kan., Lawrence—Improving Heating and Power Plant—Bureau of Indian Affairs, Wash., D. C., plans to improve at Indian School, Haskell Institute, here.

Ark., Hot Springs—Repairing and Building Hospitals—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to repair and build hospitals at military posts, here.

N. M., Sante Fe—Steam Heating System—Bureau of Indian Affairs, Wash., D. C., plans to improve and enlarge at school, here.

BIDS DESIRED

N. H., Portsmouth—Boilers and Stokers—Spec. 4124—Until Aug. 11, by Bureau Yards & Docks, Navy Dept., Wash., D. C., removing and re-erecting, here; $10 deposit required for plans and spec. Noted July 15.

Mass., Boston—Riprap—Until Aug. 6, by Supt. Lighthouses, Boston, furnishing for Cape Cod Canal.

Mass., South Boston—Tracks—Spec. 4196—Until Aug. 11, by Bureau Yards & Docks, Navy Dept., Wash., D. C., completing, here; $10 deposit required for plans and spec. Noted May 20.

N. J., Jersey City—Remodeling Post Office—Until Aug. 5, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. arch.; advertised in this issue.

D. C., Wash.—Boiler and Piping—Spec. 4242—Until July 28, by Bureau Yards & Docks, Navy Dept., installing here; $10 deposit required for plans and spec. Noted July 15.

D. C., Wash.—Lumber, etc.—Until Aug. 9, by A. L. Flint, genl. purch. agt., Panama Canal, Wash., D. C., furnishing steamer on dock at Cristobal or Balboa, Canal Zone, 109,500 ft. b.m. lumber, hickory, white pine, oak, maple, cedar, Redwood, etc.; also 15,000 pieces 9 ft. lengths and 600 pieces 40 ft. lengths, siding, box car, Douglas fir.

Va., Hampton Roads—Electric Underground Distributing System—Spec. 4240—Until Aug. 11 (change of date), by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing, here; $10 deposit required for plans and spec. Noted July 15.

Va., Norfolk—Paint and Oil Storehouse—Spec. 4222—Until July 28, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here; $10 deposit required for plans and spec.

Ill., Great Lakes—Harbor Development—Spec. 4136—Until Aug. 11 by Bureau Yards & Docks, Navy Dept., Wash., D. C., for developing harbor, here; advertised in this issue. Noted March 25.

Neb., Omaha—Post Office Substation—Treas. Dept., Wash., D. C., receiving bids building 3 story, 66 x 132 ft., here. J. A. Wetmore, superv. archt.

Arizona—Road Work—Until July 26, by Bureau Pub. Rds., Luna-Strickler Bldg., Albuquerque, N. M., building 10.02 mi. Salt River, Pleasant Valley, Sec. 2-C Project, 20 ft. wide, within Tonto Natl. Forest, Gila Co., involving 25 acre clearing and grubbing, 4,767 cu.yd. rock and 59,086 cu.yd. common excav., 1,766 lin.ft. 18-36 in. C.M.P. culverts, etc. E. S. Wheeler, dist.-engr.

Cuba, Guantanamo—Pier—Spec. 4165—Until Aug. 18 (change of date) by Bureau Yards & Docks, Navy Dept., Washington, D. C., building rein.-con., at Naval Sta., here; $10 deposit required for plans and spec. Noted July 8.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Protected Switchboard and Plotting Rooms—U. S. Engr. Office, Custom House, let contract constructing protected switchboard room and plotting room, at Ft. Andrews and protected switchboard room at Ft. Revere, Boston Harbor, to A. MacDonald & Sons, 79 Milk St., $57,006. Noted June 10.

★**Mass., Boston**—Sand and Gravel—U. S. Engr. Office, Custom House, let contract furnishing and delivering, at Hog Island, Boston Harbor, to Boston Sand & Gravel Co., 88 Broad St., $23,250. Noted June 10.

★**Mass., Nahant**—Sand—U. S. Engr. Office, Custom House, Boston, let contract furnishing and delivering at U. S. Reservation, here, to E. L. Lane, Boston. About $29,500. Noted June 10.

Federal Government Work (Continued)

N.Y., Brooklyn—Kitchen and Commissary Equipment — Spec. 4177 — Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 14, installing in Bldg. F, at Naval Hospital here, (1) work complete, from L. Barth & Son, 38 Cooper Sq., New York City, (2) $190, (3) $230, (3a) $330, (4) $18,543; Sterns Co., 133 West Lake St., Chicago, (1) $13,044, (2) $183, (3) $19,912, (3a) $13,019; J. Hoose Co., 306 South Hanover St., Baltimore, Md., (1) $14,404 (90 days), (2) $175, (3) $47.50 (10 days), (3a) $200. Noted July 8.

★**N. Y., New York**—Dredging—U. S. Engr. Office, 39 Whitehall St., let contract dredging in East Chester Creek, to T. A. Scott Co., Inc., New London, Conn., $10,-050. Noted June 3.

★**D. C., Wash.**—Electric Cable—U. S. Engr. Office, War Dept., let contract building, here, to Okonite Co., Canal St., Passaic, N. J., $36,113.

★**D. C., Wash.**—Electric Power Cable—U. S. Engr. Office, War Dept., let contract building, to Standard Underground Cable Co., 26 Washington St., Perth Amboy, N. J., $35,322.

★**D. C., Wash.**—Repairing Mechanical Equipment—Treas. Dept., let contract repairing in treasury annex, Butler and Winder Bldgs., to Allen, Mitchell & Co., 1818 E St., N. W., $9,995 (60 days).

Va., Cape Charles—Wharf, Bulkhead, etc.—Treas. Dept., Wash., D. C., received bids July 12, building wharf, bulkhead, breakwater and dredged channel for U. S. Quarantine Sta., Craney Island, here, from J. Stewart, 30 Church St., New York City (a) $69,500, (b) $9,800, (c) $3,300; Raymond Concrete Pile Co., Munsey Bldg., Baltimore, Md., (a) $45,000, (b) $72,000, (c) $10,800, (d) $3,050; Newport Contg. Co., Silsby Bldg., Newport News, (a) $90,-550, (b) $11,360, (c) $24,880, (d) $70. Noted July 8.

★**Va., Norfolk** — Bulkhead, etc. — U. S. Engr. Office, Custom House, let contract building bulkhead on Craney Island Flats and furnishing and placing riprap stone on existing bulkhead, to J. Stewart & Co., 30 Church St., New York City, $128,275. Noted June 10.

★**Va., Quantico** — Incinerator — Spec. 4137—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Marine Barracks, here, to McLean Contg. Co., 1412 Fidelity Bldg., Baltimore, Md., $28,345. Noted July 15.

★**W. Va., South Charleston** — Railroad Track Scales—Spec. 4207—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract furnishing and installing at Naval Ordnance Plant, here, to Strait Scale Co., Shawnee and Adams Sts., Kansas City, Kan. About $16,900. Noted July 1.

★**Ala., Florence** — Electric Generators and Accessories—U. S. Engr. Office, Florence, let contract furnishing and delivering at Wilson Dam, to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., $779,-400. Noted May 6.

★**O., Athens** — Boiler — Treas. Dept., Wash., D. C., let contract installing in Post Office, here, to C. Gleason, Augusta, Ga., $3,925.

Mo., St. Louis—Repairing Boiler Plant—Treas. Dept., Wash., D. C., received lowest 3 bids July 16, repairing at U. S. Marine Hospital, here, from W. Wilby, Selma, Ala., $4,000 (Nov. 1); Werner Hencke Plumbing Co., 2335 South Grand St., $4,095 (90 days); Elliott & Barry Eng. Co., 1426 Olive St., $4,115 (30 days). Noted July 1.

★**Tex., Galveston**—Redredging Channel—U. S. Engr. Office, Trust Co. Bldg., let contract redredging Clear Creek Channel, to J. Jacobson, Galveston. About $6,500.

Cal., San Diego—Refrigerating Equipment, etc.—Naval Pub. Wks. Office received only bid June 30, for refrigerating equipment and cold storage installation at marine brigade post, from York Constr. Co., 308 Boyd St., Los Angeles. Bid was not in conformity with plans and specifications as to type of machinery for refrigerator plant, but bidder offered to supply and install such equipment as it now has on hand for $34,500 (180 days). Noted June 17.

★**Cal., San Francisco**—Removing Rock—U. S. Engr. Office, War Dept., Wash., D. C., let contract removing rock in Suisun Channel, to Amer.-Dredging Co., 255 California St. About $5,400.

Miscellaneous

PROPOSED WORK

Entrance—New York, N. Y.—Transit Constr. Com., 49 Lafayette St., rejected bids received May 20, building new entrance at 168th St. Sta. of Manhattan-Bronx Rapid Transit R. R. Work will be readvertised Noted May 27.

Park Development—Baltimore, Md.—City having plans prepared for development of 9½ acres adjoining Meters Park, Spring Gardens, into municipal water front park. Work includes filling, grading, top soiling, building macadam roads, also gravel and cement walks. About $40,000. H. G. Perring, City Hall, engr.

Transmission Line—Smithville, Tenn.—Corporation of Smithville voted $30,000 bonds to build transmission line from here to Great Falls Power Co., Rock Island.

Dam—Port Wing, Wis.—See "Industrial Works."

Electric Light and Power Systems—Argyle, Minn.—City plans to build electric light and power system, also 45 mi. high power line from here to Crookston. About $30,000.

Water Meter System, etc.—Halifax, N. S.—City Council voted $70,000 to install water meter system and new pumping station.

Electric Light and Fire Alarm Systems—Westmount, Que.—See "Streets & Roads."

Water Power Development—Kenora, Ont. Lake of the Wood Pulp Mill Co. plans to develop water power, here. About $1,000,000.

Dam—London, Ont. — Utilities Comrs. having plans prepared by E. V. Buchanan, gen. mgr., Hydro Bldg., and opens bids in August for power dam at Springbank. About $300,000, including equipment.

Subways—London, Ont.—City and Grand Trunk Ry., McGill St., Montreal, Que. soon receives bids building subways at Edgerton and Rectory Sts. crossings. About $150,-000. H. Brazier, city engr., F. L. C. Bond, ch. engr. Grand Trunk Ry.

Breakwater and Widening Harbor—Pt. Stanley, Ont. — City Council having plans prepared by A. Lamb, engr., Toronto, and soon receives bids building 500 ft. breakwater and widening harbor from 80 to 175 ft. About $105,000.

BIDS DESIRED

Well Drilling Rig—Buffalo, N. Y.—F. Schreiner, 22 Pearl St., receiving bids for well drilling rig, steam preferred.

Bathhouse — Harrisburg, Pa. — E. Z. Gross, park comr., receiving bids building 35 x 160 ft. rein.-con. bathhouse, on island in Susquehanna River. About $60,000. Lawrie & Laffley, Harrisburg, archts.

Lake—Pittsburgh, Pa.—Until July 26, by city, improving and enlarging Lake Elizabeth, West Park, involving plain and rein.-con., excav., etc. About $35,000. N. S. Sprague, city engr.

Trucks — Scranton, Pa. — City receiving bids for 3 heavy motor trucks for street work. W. P. Heuster, clk.

Machines — Wilkes-Barre, Pa. — I. Saba Cone Co., Airy St., receiving bids on 3 automatic concrete block machines.

Equipment—Detroit, Mich.—Until July 26, by G. J. Finn, comr. Purch. & Supplies, furnishing three 5 kva, one 7½ kva., three 10 kva., two 50 kva. and one 75 kva. single phase, oil immersed self cooling pole type transformers and miscellaneous electric lighting equipment.

Motor-Driven Pump, Oil Switches, Air Compressor, etc. — Florence, Wis. — Until Aug. 15, by C. R. Johnson, comr. Waterworks Impvts., furnishing 3 centrifugal motor driven pumps, 100-500 gal. per minute capacity, 2 operating panels equipped with automatic controllers, meter and oil switches, 1 electric siren and 1 small air compressor. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr.

Paving Materials—St. Paul, Minn.—Until July 26, by H. W. Austin, city purch agt., furnishing material for paving 3,000 lin.ft. Fairfield Ave. from Robert to State Sts., involving 3,371 bbl. portland cement, 2,608 cu.yd. crushed rock for concrete base, 1,565 cu.yd. concrete sand, 282 tons asphalt cement, 1,141 cu.yd. fine asphaltic sand, 295 ton limestone dust, 488 cu.yd. binder stone, 135 tons trap rock; State St. from St. Lawrence to Utah Sts., 803 bbl. portland cement, 594 cu.yd. crushed rock for concrete base, 357 cu.yd. concrete sand, 64 ton asphalt, 64 ton limestone dust, 171 cu.yd. binder stone, etc.

Road Grading Outfit—Hutchinson, Kan.—P. C. Buskirk receiving bids for road grading outfit and 10 ton road roller.

Diesel Engine, Centrifugal Pump — San Benito, Tex.—Until July 29, by Cameron Co. Water Impvt. Dist. 2, furnishing 1 Diesel or semi-Diesel engine and 1 centrifugal pump of sufficient capacity to deliver 100,-000 gal. water per minute, discharging against variable head up to 20 ft. average actual lift about 16 ft. (2 units with combined capacity of 100,000 gal. per minute will be considered). F. S. Robertson, mgr.

Storage Tank — La Tuque, Que. — Brown Corp. Ltd. receiving bids for steel storage tank, 25-30 ft. long, 12-15 ft. diameter.

Crib—Ottawa, Ont.—Until Aug. 5, by Dept. Pub. Wks., building 400 ft. closed face constructed crib, fully ballasted, 20-30 ft. wide, also 53.5 ft. crib fully ballasted, 8 ft. wide, at Anse aux Gascons, Que. Work involves 1,000 cu.yd. earth excav. and fill. About $36,000. E. Lafleur, Ottawa, engr. Noted April 15.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Gate Valves — Boston, Mass — City received bids July 8, furnishing twenty 16 in. gate valves, from Kennedy Valve Co., 47 India St., $9,532; Coffin Valve Co., Nonset, $16,900. Noted July 1.

Granite Edgestone — Boston, Mass.—City received bids July 6, furnishing 30,000 lin. ft. granite edgestone, from Lombard Granite Corp., $1.90 per lin.ft. delivered at yard; H. G. Fletcher, $2.09; New England Granite Wks., $2.50.

★**Dam—Millers Falls, Mass**—Millers Falls Co. let contract repairing concrete dam recently damaged by water, to H. P. Cummings Constr. Co., Ware. About $25,000.

★**Tanks—South Boston** (Boston P. O.), **Mass.**—Amer. Sugar Refining Co., Bd. Trade Bldg., Boston, let contract building 2 rein.-con. oil tanks, on Granite St., to C. R. Gow Constr. Co., 166 Devonshire St., Boston. About $30,000.

★**Heating and Sanitary Work—Kings Park, N. Y.**—State Hospital Comn., Capitol, Albany, let contract for heating work at State Hospital, here, to W. B. Armstrong Co., 3 Fulton St., Albany, $124,000; sanitary work and service connections, to T. E. O'Brien, 6311 5th Ave., Brooklyn, $33,-000. Noted May 20.

Platforms, etc.—Phila., Pa.—City Transit Dept., 1211 Chestnut St., let contract building station platforms on Front and Berk Sts., Kensington and Tioga Sts. and Torresdale Ave., also Frankford Ave. and Pratt St., to F. J. Boas, 201 North Broad St., $237,429 and $72,410 respectively; track floors, drains, footwalks, on Front St. from Callowhill to Arch Sts. and on Frankford St. from Dwyer to Bridge, to R. E. Lamb, 841 North 19th St., $168,335. Noted June 10.

Tracks—Phila., Pa.—City Transit Dept., 1211 Chestnut St., received only bid June 22, building tracks on Front St. from Arch to Callowhill Sts., and on Frankford St. from Harrison St. to Bridge, from Snare & Triest, Pennsylvania Bldg., $150,018. Noted June 10.

Cast Iron Pipe and Specials—Washington D. C.—Dist. Comrs. received bids July 15 furnishing (1) 3 in. pipe, (2) 8 in. pipe, (3) 20 in. pipe, (4) Class A Specials, (5) Class B Specials, from U. S. Cast Iron Pipe & Fdry Co., Phila., (1) $85.90, (2) $75.90, (3) $75.90, (4) $0.0825 lb., (5) $0.0925 lb., (20 to 110 days); R. D. Wood Co., 400 Chestnut St., Phila., (1) alternate 4 in., $92, (2) $82, (3) $87, (4) $160, (5) $160 (45 working days); Glamorgan Pipe & Fdry. Co., 98 Adams St., Lynchburg Va., (1) $85.40, (2) $75.40, (3) $75.40, Specials, $145 base price. (45 days.)

★**Subway—Cincinnati, O.**—City let contract building 3rd section of Rapid Transit Loop involving excavation of old canal bed to Hickey Bros., Furnace and Mound Sts., Columbus, $556,905.

★**Paving Materials—St. Paul, Minn.**—City let following contracts for Lincoln Ave. paving project: 9,342 cu.yd. crushed rock for concrete base to St. Paul Crushed Stone Co., Stewart and Victoria Aves., $2.70 per cu.yd., and J. L. Shiely Co., 7th and St. Peter Sts., $2.60; 5,600 cu.yd. concrete sand, $1; 4,390 cu.yd. crushed stone or gravel for curb, $3; 576 cu.yd. screened stand, $1.60; 3,800 cu.yd. fine asphaltic sand, $2.25; 1,138 cu.yd. coarse asphaltic sand, $1.75, to J. L. Shiely Co., 7th and St. Peter Sts., 2,420 cu.yd. binder stone to St. Paul Crushed Stone Co., Stewart and Victoria Aves., $2.70, 94,598 lb. pitch filler to Barrett Co., 1 19th Ave. S., $33.60 per ton, and 908 tons limestone dust to Minnesota Crushed Stone Co., 1500 N. E. Johnson, Minneapolis, $5.50 f.o.b.

★**Culverts—Troy, Kan.**—Doniphan Co. let contract building culverts on 6.1 mi. Pikes Peak Highway, Federal Aid Project 53, Sects. A, B and C, 18 ft. wide, to Hybskoman & Wiley, Seneca, $15,405.

★**Road Planer—Mott, N. D.**—Comrs. Hettinger Co. let contract for road planer, to Gilbert Mfg. Co., Aberdeen, S. D., $1,350.

....excav and dredging.. ....

★**Fill, etc.—Reed Springs, Mo.** — Missouri Pacific R.R., Exch. Bldg., St. Louis, let contract for 800,000 cu.yd. of fill and building, 2,000 cu.yd. rein.-con. culverts on White River Div., here and in Cricket, Ark., to L. J. Smith Constr. Co., 1015 Commerce St., Kansas City. About $450,000.

OFFICIAL PROPOSALS

Bids: July 27.

New County Jail

Toms River, N. J.

The Board of Chosen Freeholders of the County of Ocean, in the State of New Jersey, will receive on Tuesday, July 27, 1920, at 12 o'clock noon, at the Freeholders' Room in the Court House, Toms River, Ocean County, N. J., sealed proposals for the construction of a new county jail building complete with steel cell equipment. Separate plans and specifications for the plumbing and gas fitting and all work kindred thereto and of the steam heating and ventilating apparatus and work kindred thereto and electrical work and for the steel cell equipment have been prepared and separate bids for each of said branches of work will be received. Bids will also be received for the general work of construction of said jail building excluding the steel cell equipment, plumbing and gas fitting, steam heating and ventilating apparatus and electrical work. Separate bids will also be received for the general construction of said building including steel cell equipment, but excluding plumbing and gas fitting, steam heating and ventilating and electrical work.

Each bid must be accompanied by a certified check of the bidder for 10% of the amount of the bid, payable to the County Treasurer as a guarantee that if his bid is accepted he will, within ten days from the date of said award, enter into a contract with the said Board of Chosen Freeholders, in accordance with said bid, and file a bond in the penal sum of an amount equal to the amount of said bid, with good and sufficient surety thereon, said surety to be approved by the said Board, conditioned for the faithful performance of said work in strict compliance with the plans and specifications for the same and to the entire satisfaction of the said Board.

The right is reserved to reject any or all bids.

Said proposals should be endorsed "Proposal for construction of new county jail," "Proposal for construction of new county jail including steel cell equipment," "Proposal for steel cell equipment in new county jail," "Proposal for electrical work," "Proposal for steam heating," "Proposal for plumbing and gas fitting," or as the case may be. All proposals should be addressed to the Board of Chosen Freeholders, Toms River, N. J.

Plans, specifications and complete data are on file at the office of Clarence W. Smith, Architect, Thompson Building, Lakewood, N. J., and open to the inspection of prospective bidders. A complete set of plans and specifications will be furnished by the said architect upon receiving a deposit of $10.00, which said amount will be refunded upon the return of the set in an undamaged condition.

WILLIAM H. SAVAGE,
Director of Board of
Chosen Freeholders,
DAVID O. PARKER,
Clerk.

Dated July 6, 1920.

Bids: Aug. 14.

Construction of Highway

FIRST ROAD DISTRICT OF THE THIRD POLICE JURY WARD

St. Landry Parish, La.

Sealed proposals will be received at the office of the Board of Supervisors, at Opelousas, Louisiana, up to 3 o'clock p.m., Saturday, August 14th, 1920, for constructing the Opeloousas-Arnaudville Highway from Cain's to Arnaudville, St. Landry Parish, La., 11.93 miles.

Information as to location, character of work, extent and class of material, estimated cost, terms of payment, regulations governing manner of submitting proposals and executing contract may, on application and deposit of $10.00, be obtained at the office of the Engineers

HOLLIER & DURIO, Engineers,
Room 6, Saizan Building,
Opelousas, La.

DR. A. C. DURIO, Chairman,
Arnaudville, La.
J. J. BENOIT, Secretary,
Arnaudville, La

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Aug. 17.

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until 12 o'clock noon of Tuesday, August 17th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, and Chapter 402 of the Laws of 1920, as follows:

TERMINAL CONTRACT No. 71

For completing the Court Street approach to the Rochester terminal.

Contract plans, sheets 1-17, inclusive.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Pubic Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced therby.

EDWARD S. WALSH,
Superintendent of Public Works.

July 16th, 1920.

Bids: July 29.

Concrete Bridge and Approaches

Herkimer, N. Y.

Sealed proposals will be received by the Town Boards of Fairfield and Herkimer and by the Town Clerk in the Municipal Building, Herkimer, N. Y., until 2 p.m., on the 29th day of July, 1920, for the construction of a reinforced concrete arch bridge over the West Canada Creek and crossing over the tracks of the Adirondack Division of the New York Central Railroad, with approaches and appurtenant structures, at Dempster's, 3 miles north of Herkimer, N. Y., at which time they will be opened and read.

The contract will be let in two parts but proposals must be made to cover the whole work.

Certified checks in the total sum of $5,000 must accompany each proposal.

Surety bond in the sum of 50% of the amount of the contract will be required.

Plans and specifications may be seen at the office of the Town Clerk at Herkimer, N. Y., or copies may be had from the office of E. J. Doyle, Consulting Engineer, 95 State Street, Albany, N. Y., and from the office of G. A. Noren, Engineer of Grade Crossings, New York Central Railroad Company, Grand Central Terminal Building New York City, N. Y., upon the deposit of $20, which will be returned upon the return of the plans and specifications in good condition.
condition.

ELMER GAY,
Town Superintendent of Highways,
Town of Herkimer.
CHARLES RICHARDSON,
Town Superintendent of Highways,
Town of Fairfield.
E. J. BECKINGHAM,
Town Clerk of the Town of Herkimer.
B. J. RASBACH,
Town Clerk of the Town of Fairfield.
E. J. DOYLE,
Consulting Engineer.

Bids: July 30.

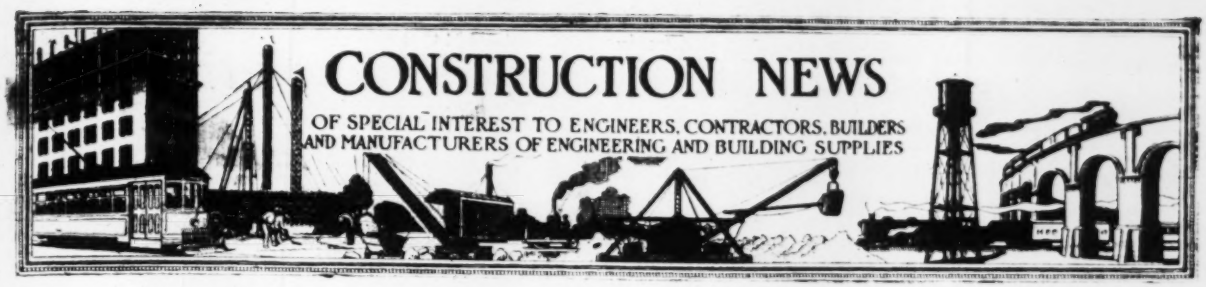
Concrete Paving

Gibbstown, N. J.

Bids will be received by the Township Clerk until 5.30 p.m., on Friday, July 30th, 1920, for the furnishing of all labor and material for 533 cubic yards of excavation and the laying of 1,893 square yards of reinforced concrete paving on Repauno Avenue in the Village of Gibbstown, N. J.

Plans and specifications may be seen on file at the Office of Township Engineer, J. Owen Carter, 48 Cooper Street, Woodbury, N. J., or with the undersigned.

ELI A. ALLEN,
Township Clerk,
Greenwich Township



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 4	Hartsville, S. C.	July 29
	Adv. July 29.	
Aug. 4	Boston, Mass.	July 29
Aug. 25	Marcy, N. Y.	July 29
	Adv. July 22 and 29.	

SEWERS

July 30	St. George, S. I., N. Y.	July 15
July 30	South Beach, S. I., N. Y.	July 22
Aug. 2	Elmira, Ont.	July 29
Aug. 2	St. Paul, Minn.	July 29
Aug. 3	Kilbourn, Wis.	July 22
Aug. 4	Hartsville, S. C.	July 29
Aug. 5	Pine Island, Minn.	July 22
Aug. 9	Pontiac, Mich.	July 29
	Adv. July 22 and 29.	
Aug. 10	St. Louis, Mo.	July 29
Aug. 10	Darlington, Wis	July 29
Aug. 11	Joliette, Que.	July 22
Aug. 12	Rush City, Minn.	July 29
Aug. 17	Armour, S. D.	July 29
	Adv. July 29.	

BRIDGES

July 31	Critz, Va.	July 22
Aug. 2	Florence, Ariz.	July 15
Aug. 3	Morgan, Ga.	July 15
Aug. 3	Fond du Lac, Wis.	July 29
Aug. 4	Duboistown, Pa.	July 15
Aug. 5	Athens, Ga.	July 29
Aug. 5	Georgia	July 29
Aug. 6	Dublin, Ga.	July 22
Aug. 6	Kenton, O.	July 29
Aug. 6	Cambridge, Minn.	July 29
Aug. 9	Missouri	July 29
Aug. 11	Augusta, Me.	July 29
	Adv. July 22 and 29.	
Aug. 11	Dungannon, Va.	July 29
Aug. 17	Rochester, N. Y.	July 22
	Adv. July 22 and 29.	
Aug. 20	Bristol, Conn.	July 15
Aug. 23	Claxton, Ga.	July 22
Aug. 24	Harrisburg, Pa.	July 29
	Adv. July 29.	

STREETS AND ROADS

July 30	Gibbstown, N. J.	July 22
July 31	New Mexico	July 22
July 31	Buffalo, N. Y.	July 29
Aug. 2	Covington, Tenn.	July 22
Aug. 2	Sabetha, Kan.	July 22
Aug. 2	Maryland	July 22
	Adv. July 22 and 29.	
Aug. 2	Connecticut	July 29
Aug. 2	Braddock, Pa.	July 29
Aug. 2	Portland, Ore.	July 22
Aug. 2	Olympia, Wash.	July 22
Aug. 2	Salt Lake City, Utah	July 22
Aug. 2	Greenfield, Ind.	July 22
Aug. 2	Johnstown, N. Y.	July 29
	Adv. July 29.	
Aug. 2	Chicago, Ill.	July 29
Aug. 3	Bessemer, Mich.	July 29
Aug. 3	Walker, Minn.	July 22
Aug. 3	Columbus, O.	July 22
Aug. 3	Grosse Pointe Park (Detroit P. O.), Mich.	July 15
Aug. 3	South Dakota	July 22
Aug. 3	Forest City, Ia.	July 29
Aug. 3	Colorado	July 29
Aug. 3	Sidney, Ia.	July 29
Aug. 3	Lehi, Utah	July 29
Aug. 3	Onaconia, S. D.	July 29
Aug. 3	New York, N. Y.	July 29
Aug. 4	Muscatine, Ia.	July 29
Aug. 4	Poplarville, Miss.	July 29
Aug. 4	South Dakota	July 22
Aug. 4	Louisburg, O.	July 29
Aug. 4	Rhode Island	July 29
	Adv. July 29.	
Aug. 4	Middletown, Del.	July 29
	Adv. July 29.	
Aug. 4	Ontario	July 29
Aug. 5	Fenton, Mich.	July 29
Aug. 5	Ft. Meyers, Fla.	July 29
Aug. 5	Groesbeck, Tex.	July 29
Aug. 5	Ft. Myers, Fla.	July 8
Aug. 5	Spencer, W. Va.	July 22
Aug. 6	South Dakota	July 22
Aug. 6	Logan, W. Va.	July 22
Aug. 6	Canton, O.	July 29
Aug. 7	Spur, Tex.	July 29
Aug. 9	South Pasadena, Cal.	July 22
Aug. 9	Missouri	July 29
Aug. 9	Maryland	July 29
	Adv. July 29.	
Aug. 10	Ludington, Mich.	July 29
Aug. 10	Hastings, Minn.	July 29
Aug. 10	Princeton, W. Va.	July 29
Aug. 10	St. Louis, Mo.	July 22
Aug. 11	Bloomfield, Ia.	July 29
Aug. 11	Belvidere, N. J.	July 29
	Adv. July 22 and 29.	
Aug. 14	Charleston, W. Va.	July 22
	Adv. July 22 and 29.	
Aug. 14	Opelousas, La.	July 15
	Adv. July 15 to 29.	
Aug. 14	Arkansas	July 29
Aug. 14	Michigan	July 29
Aug. 15	Monticello, Miss.	July 29
Aug. 18	Carrollton, Ga.	July 29
Aug. 18	Canyon, Tex.	July 29
Aug. 20	Ohio	July 29
Aug. 20	Amarillo, Tex.	July 29
Aug. 20	Amarillo, Tex.	July 22
	Adv. July 22 and 29.	
Aug. 24	Webster Springs, W. Va.	July 29
	Adv. July 29.	

EXCAVATION AND DREDGING

July 31	Madisonville, Ky.	July 22
	Adv. July 22 and 29.	
Aug. 2	Waterloo, Ia.	July 22
Aug. 3	Sioux City, Ia.	July 22
Aug. 3	Ft. Dodge, Ia.	July 29
Aug. 4	Trenton, Mo.	July 29
Aug. 4	Marengo, Ia.	July 8
Aug. 5	Phoenix, Ariz.	July 29
Aug. 5	Edwardsville, Ill.	July 29
Aug. 5	Milwaukee, Wis.	July 29
Aug. 5	Summer, Miss.	July 29
Aug. 7	Mt. Carmel, Ill.	July 22
Aug. 10	Waseca, Minn.	July 29
Aug. 14	Rockwell City, Ia.	July 29

INDUSTRIAL WORKS

Aug. 1	Cambridge, Mass.	July 8
Aug. 1	Ft. Williams, Ont.	July 22
Aug. 2	Cleveland, O.	July 22
Aug. 8	Brantford, Ont.	July 29
Aug. 11	Cleveland Heights, O.	July 29
Aug. 15	Port Arthur, Ont.	July 22
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

July 30	New York, N. Y.	July 22
July 30	New Wilmington, Pa.	July 22
July 31	Miniota, Man.	July 15
Aug. 1	Jamestown, N. D.	July 8
Aug. 1	Anderson, S. C.	July 15
Aug. 1	Baltimore, Md.	July 8
Aug. 2	Charleroi, Pa.	July 22
Aug. 2	Salina, Kan.	June 17
Aug. 2	Duluth, Minn.	July 29
Aug. 2	Emporia, Kan.	July 29
Aug. 2	Media, Pa.	July 8
Aug. 2	Detroit, Mich.	July 29
Aug. 2	Minneapolis, Minn.	July 22
Aug. 2	Sharon, Pa.	July 22
Aug. 2	Oil City, Pa.	July 22
Aug. 2	Zanesville, O.	July 22
Aug. 3	McCallsburg, Ia.	July 15
Aug. 3	Bristol, Conn.	July 22
Aug. 4	Mitchell, S. D.	July 29
Aug. 5	Manchester, Conn.	July 22
Aug. 9	Oberon, N. D.	July 8
Aug. 9	East Moline, Ill.	July 29
Aug. 9	McKeesport, Pa.	July 29
Aug. 10	Detroit, Mich.	July 29
Aug. 10	Chicago, Ill.	July 15
Aug. 10	Ashley, N. D.	July 29
Aug. 11	Detroit, Mich.	July 29
Aug. 19	Prospect, O.	July 22
Aug. 15	Montreal, Que.	July 22
Aug. 15	Verdun, Que.	July 29
Aug. 16	Sioux City, Ia.	June 17
Aug. 21	London, Ont.	July 22
Sept. 3	Ft. Wayne, Ind.	July 29

FEDERAL GOVERNMENT WORK

July 30	Widening and Deepening — New Orleans, La.	July 1
July 30	Remodeling Post Office—Battle Creek, Mich.	July 8
July 30	Superstructure — Wash., D. C.	July 8
Aug. 2	Lumber, etc.—Wash, D. C.	July 22
Aug. 3	Road Work—Oregon	July 29
Aug. 4	Remodeling Post Office — Augusta, Me.	July 15
Aug. 5	Remodeling Post Office — Jersey City, N. J.	July 22
Aug. 6	Riprap—Boston, Mass.	July 22
Aug. 9	Changes in Post Office—St. Louis, Mo.	July 29
Aug. 11	Temporary Storehouse — Spec. 4229—Pearl Harbor, H. T.	July 8
Aug. 11	Tracks—Spec. 4196—South Boston, Mass.	July 22
Aug. 11	Electric Underground Distributing System — Spec. 4240—Hampton Roads, Va.	July 22
Aug. 11	Boiler and Stokers—Spec. 4124—Portsmouth, N. H.	July 22
Aug. 11	Harbor Development—Spec. 4136 Great Lakes, Ill.	July 22
Aug. 16	Diversion Dam—Florence, Ariz.	July 15
Aug. 16	Remodeling Boiler — Ft. Stanton, N. M.	July 29
Aug. 18	Pier — Spec. 4165 — Guantanamo, Cuba	July 22
Aug. 24	Canal—Caldwell, Idaho	July 15

MISCELLANEOUS

Aug. 2	Portland Cement— — Detroit, Mich.	July 29
Aug. 2	Road Material—New York, N. Y.	July 29
Aug. 3	Heating System—Comstock, N. Y.	July 29
	Adv. July 29.	
Aug. 5	Dam—Montreal, Que.	July 29
Aug. 5	Wharf—Ottawa, Ont.	July 22
Aug. 7	Pier and Transit Sheds — Vancouver, B. C.	July 1
Aug. 9	Culverts—St. Joseph, Mo.	July 29
Aug. 17	Motor Driven Pump, Oil Switches, Air Compressor—Florence, Wis.	July 29
Aug. 17	Piles—Detroit, Mich.	July 29
	Adv. July 29.	

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Palmer—Thorndike Co. having plans prepared by Leary & Walker, engrs., Times Bldg., New Bedford, for reservoir and water supply system.

Mass., West Springfield (Springfield P. O.)—Town plans to install waterworks system. About $100,000. F. A. Barbour, 1121 Tremont Bldg., Boston, engr.

Pa., Phila—City plans to expend $250,000 on waterworks system, to include modifications at Queen Lane Pumping Sta. and improvements at Torresdale Filters and Lardners Point Pumping Sta., also increasing water supply for industries in West Philadelphia.

Tenn., Pulaski—City plans to sell $100,000 bonds to build water works system.

O., Lakewood (Cleveland P. O.)—City having surveys made for waterworks system and pumping station. E. A. Fischer, City Hall, engr.

Kan., Haven—City voted $70,000 bonds to build reservoir and cement pipe line. Rollins Eng. Co., 209 Ry. Exch. Bldg., Kansas City, Mo., engrs.

Kan., Minneola—City voted $45,000 bonds to build reservoir and cement pipe line. Rollins Eng. Co., 209 Ry. Exch. Bldg., Kansas City, Mo., engrs.

Neb., David City—City voted $30,000 bonds to build 500,000 gal. reservoir.

Mo., Fayette—City had plans prepared by Johnson & Benham, engrs., Firestone Bldg., Kansas City, Mo., and soon receives bids building 14,000 ft. 8 in. c.i. or wood pipe line and earth filled dam. About $75,000. Noted June 24.

Tex., Alpine—City plans to build waterworks system. About $20,000. Bartlett & Raney, Moore Bldg., San Antonio, engrs.

Okla., Erick—See "Sewers."

Que., Montreal—See "Buildings".

BIDS DESIRED

Mass., Boston—Until Aug. 4, by Joint Bd. on Water Supply Needs and Resources, making wash borings in Barre, Oakham, Enfield and Greenwich; advertised in this issue.

N. Y., Marcy—Until Aug. 25, by State Hospital Comn., Capitol, Albany, building mechanical filtration plant and pumping station with building, reservoir, pipe line and appurtenances for Marcy Div., Utica State Hospital, here; advertised in this issue.

S. C., Hartsville—Until Aug. 4, by town, building 14,750 ft. 6 in. water mains. C. C. Wilson, 804 Palmetto Bldg., Columbia, engr.

Minn., Rush City—See "Sewers".

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Auburn**—Auburn Water Co. will take up present 4 in. mains and build 3 mi. 6 in. c.i. watermains. Work will be done by day labor.

★**Pa., Pittsburgh**—City let contract constructing 2 story, 28 x 60 ft., rein.-con. building for water purification plant, with capacity of 20,000 gal. per hour, to Cuthbert Bros. Co., Bessemer Bldg. About $35,000.

★**Mich., Ironwood**—City let contract laying pipe, also building pumping station, sub-stations, etc., to W. S. Peters, Wakefield, $50,230 and $62,613 respectively; centrifugal equipment, to Lee Courtenay Co., $27,600; valves, to Ludlow Valve Co., $3,131. Noted June 17.

★**Ill., Crystal Lake**—Bd. Local Impvts. let contract building extensions to main water supply system, to C. M. Porter, 111 Washington St., Chicago, $76,344. Noted June 17.

★**Minn., Columbia Heights**—City let contract extending waterworks system, to W. D. Lovell, 1415 8th St. S. E., Minneapolis. About $25,000.

★**N. D., Grand Forks**—Industrial Comn. of North Dakota, Bismarck, let contract building reservoir, filter plant, power house, etc., including boilers, stokers, etc., to Fegles Constr. Co., Minneapolis. Noted May 13.

★**Okla., El Reno**—City let contract furnishing labor and material improving waterworks system, to Merkle Mchy. Co., 408 Interstate Bldg., Kansas City, Mo. Noted June 24.

★**Okla., Madill**—City let contract building extensions to waterworks system, Sect. B, to Chicago Bridge & Iron Wks., Practorian Bldg., Dallas, Tex., $18,540; Sect. C, to T. C. Brooks & Sons, Jackson, Mich., $53,833; Sect. D, to Merkle Mchy. Co., Interstate Bldg., Kansas City, Mo., $29,875. Noted June 10

★**Cal., Hayward**—City let contract building rein.-con. reservoir, to E. H. Martin, Synd. Bldg., Oakland, $15,974; excavation work, to Carlin Grading Co., 110 Jessie St., San Francisco, at $1.25 per yd., total $3,875.

Sewers

PROPOSED WORK

N. J., Egg Harbor City—City having plans prepared by Remington & Vosbury, engrs., 6th and Market Sts., Camden, for sewage disposal plant and storm and sanitary sewerage system, involving 12 mi. terra cotta pipe. About $175,000.

N. J., Westfield—Boro. having survey made by Remington & Vosbury, engrs., 6th and Market St., Camden, for sanitary sewerage system, involving 20 mi. terra cotta pipe.

Pa., Phila.—City plans to build sewers in B St. from Rosehill St. to Erie Ave.; Erie Ave. from B to D Sts.; Bingham St. from Tacony Creek to Adams Ave.; 51st St. from Grays Ave. to Schuylkill River; Godfrey Ave. from 10th to Broad Sts.; 9th St. from Champlost Ave. to Green Lane; Summerdale Ave. from Adams Ave. to Phila. & Reading R.R.; intercepting sewer along Tacony Creek in I St.; H St. and Tacony Creek Park from Ramona Ave. to Roosevelt Blvd.; extension of Bigler and Packer St. Sewer, also 7 mi. branch sewers. About $1,200,000.

O., Akron—City had plans prepared for building 2½ mi. of sewers. About $75,000. J. E. Root, supt. Dept. of Sewage.

O., Marion—City retained G. B. Gascoigne, consult. engr., 1449 East 116th St., Cleveland, to prepare plans for sewerage and sewage disposal improvements. About $600,000. T. S. Cathers, city engr.

Mich., Detroit—City having plans prepared building and backfilling Lateral Sewer 3,306, Connors, Lenox, De Buck and Forest Sts.; 3,307, Raymond, Clarion, Georgia and Edgewood Sts.; 3,309, Erwin, Holcomb, Georgia and Edgwood Sts.; 3,310, Livernois, Canterbury and Pembroke Sts. and Seven Mile Rd.; 3,311, Jos. Campau, Mitchell, Davison and Cody Sts.; 3,312, Jos. Campau, Mitchell, Cody and Halleck Sts.; 3,313, Jos. Campau, Mitchell, Carpenter and Halleck Sts.; 3,314, Arlington, Maine, Carpenter and Davison Sts.; 3,315, Riopelle, Dequindre and Davison Sts.; 3,316, Greeley, Orleans, Davison and Victor Sts.; 3,280, Gratiot, Roseberry and Rosemary Sts., involving 10-24 in. vitr. crock, etc. C. W. Hubbell, city engr.

Wis., Whitefish Bay (Milwaukee P. O.)—City having plans prepared for concrete sewage disposal plant, filter beds and syphons. About $20,000. Parsons & Orbert, 627 M. & M. Bank Bldg., Milwaukee, engrs.

Neb., Omaha—See "Industrial Works."

Okla., Erick—City plans to install sewerage system, also enlarge waterworks and electric light plant. About $120,000. J. A. Richardson, mgr.

Okla., Ponca City—City election Aug. 3, to vote on $50,000 bonds to build storm sewers in various streets. Engineer not decided.

Ore., Portland—City had plans prepared and soon receives bids laying sewers in Pacific St. from East 63rd to East 65th Sts., Jarrett St. from East 6th to East 9th Sts., Church St. from East 7th to East 9th Sts., Sumner St. from Serene Park to East 9th Sts., East 9th St. from Sumner St. to Ainsworth Ave., East 36th St. near Shiller Sewerage System, $31,950; building Morse St. Trunk Sewerage System, $31,529; 41st Ave. S. E. and 49th St. S. E. Sewerage System, $5,029; 67th St. S. E. and 45th Ave. S. E. Sewerage System, $20,616. O. Laurgaard, city engr.

Cal., Stockton—City having preliminary estimates prepared for building storm sewers in various streets. W. B. Hogan, city engr.

Que., Montreal—See "Buildings."

Ont., Toronto—City plans to build 900 ft. trunk sewer in York St. from King to Front Sts., 6 ft. diameter, concrete or brick. About $29,668. R. C. Harris, city engr.

BIDS DESIRED

S. C., Hartsville—Until Aug. 4, by town, building 10,200 ft. 8 and 10 in. sewer. C. C. Wilson, 804 Palmetto Bank Bldg., Columbia, engr.

Mich., Pontiac—Until Aug. 9, by E. Leubke, city clk., building trunk sanitary sewers; advertised in this issue.

Wis., Darlington—Until Aug. 10, by J. Swift, city ck., furnishing and laying 8,650 ft 10-24 in. vitr. storm sewers, 4 catchbasins, etc., in Main and Galena Sts. About $25,000. W. F. Reichardt, Water town, engr.

Minn., Rush City—Until Aug. 12, by City Clerk, building sanitary sewerage system and laying water mains. About $90,000. J. F. Druar, 514 Globe Bldg., St. Paul, engr. Noted May 27.

Minn., St. Paul—Until Aug. 2, by H. W. Austin, city purch. agt., building sewers in Mississippi River Blvd. Capitol Pl., Dale, Gaultier, Clifton and Hyacinth Sts., Pleasant, Asbury, Simpson, Taylor and Weide Aves. O. Claussen, city engr.

Mo., St. Louis—Until Aug. 10, by Ed. Pub. Serv., building sewers, including inlets, catchbasins, etc., in 10,665 ft. Glaise Creek Sewer Dist. 17. About $70,000. W. W. Horner, City Hall, engr.

S. D. Armour—Until Aug. 17, by F. Felton, city aud., building 8 and 10 in. service or lateral sewers in Spark, Main and Braddock Sts.; advertised in this issue.

Ont., Elmira—Until Aug 2, by J. H. Ruppel, clk, supplying and laying 9,400 ft. 8-15 in. vitr. sewer pipe, with manhole covers, castings, etc. About $30,000. H. Johnston, 103 Frederick St., Kitchener, engr. Noted May 6.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., West Roxbury (Boston P. O.)—City of Boston received bids July 21, building Saville and Wren Sts. Sewerage System here, from J. Barletta, $39,328; J. Todesco, Roslindale, $43,783; F. Drinkwater, $44,51[illegible]

★**N. J., Haddonfield**—City let contract building 2 sewage disposal plants and laying 1 mi. terra cotta sewer pipe, to W. P. Corson, 1111 Sycamore St., Camden. About $130,000.

★**N. J., Irvington** (Newark P. O.)—See "Streets and Roads".

★**Pa., Phila.**—City let contract building sewer in Octalaune and 18th Sts. and 66th and 67th Aves., to A. J. Jaffola, 139 South 50th St., $130,000; branch sewer in Olney Ave. from 11th St. to Wayne Ave., to J. J. McHugh, 1430 South Penn Sq., $30,000. Noted July 8.

★**S. C., Kingstree**—Comrs. Williamsburg Co. let contract building 2½ mi. causeway through Black River Swamp on road from here to Manning, involving 98,000 cu. yd. excav., to C. Campbell, Foreston. About $34,300.

★**O., Xenia**—City let contract building sewer extension in Dists. 1, 2, 3, 5 and 6, to J. C. Mercer & Son, Piqua, 28,628. Noted April 29.

★**Ind., Wabash**—See "Streets and Roads."

Mich., Detroit—City received bids July 29, furnishing labor and material building (a) Lateral Sewer 3,173, (b) 3,295, (c) 3,296, (d) 3,297, (e) 3,302, (f) 3,304, (g) Coventry Blvd. Arm, (h) John S. St. Arm, (i) Charleston Ave. Arm, from Oakwood Constr. Co., 165 Fort Blvd., (a) $41,000, (b) $6,125, (c) $11,000, (d) $17,511, (e) $9,370; Western Constr. Co., 1208 Ford Bldg., (b) $4,935, (c) $10,358; N. Mancini, 580 Concord Ave., (e) $4,600, (f) $4,670; A. H. Haynes, 70 Davenport Ave., (e) $4,775, (f) $4,825; Jaynes & Affeld, 1208 Ford Bldg., (g) $222,485, (h) $59,292, (i) $69,200; J. Porath, 23 McGraw Bldg., (g) $210,492, (h) $63,616, (i) $69,139; Lennane & McIlvenna, 1205 Book Bldg., (g) $205,877, (i) $71,990; W. Blanck & Co., 827 Ford Bldg., (h) $62,797. Noted July 22.

★**Mich., Detroit**—City let contract to N. Mancini, 580 Concord Ave., building Springle Ave. Sanitary Sewer, $57,750; to W. Blanck & Co., 827 Ford Bldg., John R. Arm, $57,145; to J. Porath, 23 McGraw Bldg., Swift Ave. Arm, Puritan Ave. Arm and Oakland Ave. Arm, $66,550, $65,912 and $54,840 respectively. Noted July 15.

★**Wis., Milwaukee**—Sewerage Comn. let contract building 595 ft. 30 in. c.i. syphon and 2 valve chambers in Concord and Auer Aves., to Knowles & Fehr, 314 North Dearborn St., Chicago, $47,030.

★**Wis., Milwaukee**—Sewerage Comn. received only bid July 22, laying 860 ft. c.i. pipe syphon and 1 valve chamber in Bradford Ave and Wright St., from Wenzel & Henoch, 498 27th St., $27,040.

Sewers (Continued)

★**Col., Ft. Collins**—City let contract building storm sewers in Whitcomb and Whedbee Sts. and Oak and Laurel Sts. to M. Johnson & Co., Boulder. About $102,000.

Ore., Portland—City received bids July 14, furnishing labor and material building (a) Killingsworth Ave. and East 29th St. Sewerage System, (b) Mohawk and Jersey Sts., Sewerage System, (c) sewer in East 76th St. from point 260 ft. south of East Burnside to East Glisan Sts., all cement, from Portland Realty & Trust Co., Ry. Exch. Bldg., (a) $22,663, (b) $4,872; J. Keating, Portland, (a) $26,201, (b) $5,008, (c) $7,443; Azar & Co., Portland, (b) $4,758, (c) $6,471; Braley & Cusick, Vancouver, Wash., (b) $4,857, (c) $6,796; Mehemarie & Co., Portland, (b) $5,171, (c) $6,944.

Bridges

PROPOSED WORK

Me., Kittery—See "Portsmouth, N. H."

N. H., Portsmouth — Piscataqua River Bridge Comn. having plans prepared by Strauss Bascule Bridge Co., engrs., 104 South Michigan Ave., Chicago, for superstructure of Interstate Highway and Electric Ry. Bridge, over Piscataqua River, connecting Portsmouth and Kittery, Me. to have three 300 ft. spans, center one being Strauss double leaf bascule. Cost will be borne by New Hampshire, Maine and U. S. Navy Dept.

N. J., Newark—Essex Co. (Newark) and Morris Co. (Morristown) soon receives bids building Hanover, Cook and Columbia Bridges, over Passaic River, rein.-con. and steel. About $70,000. F. J. Reimer, co. engr.

Ill., Carbondale—State Highway Dept., Springfield, opens bids about Aug. 15, building 410 ft. bridge over Big Muddy River. L. Schwartz, dist. engr.

Kan., Chapman—Comrs. Dickinson Co. (Abilene) having plans prepared and soon receive bids building one span rein.-con. arch bridge, 150 ft. long, 18 ft. wide, near here. About $40,000. L. J. Reese, co. engr. Marsh Eng. Co., 205 Masonic Temple, Des Moines, Ia., designing engrs.

Kan., Junction City—Comrs. Geary Co. (Junction City), having plans prepared and soon receive bids building one span rein.-con. arch bridge, 150 ft. long, 18 ft. roadway, near here. About $40,000. G. A. Russell, co. engr. Marsh Eng. Co., 205 Masonic Temple, Des Moines, Ia., designing engrs.

Kan., Wakarusa — Comrs. Shawnee Co. (Topeka), having plans prepared and soon receive bids building one span rein.-con. arch bridge, 130 ft. long, 20 ft. wide, near here. About $40,000. J. E. Williams, 1311 Clay St., co. engr. Marsh Eng. Co., 205 Masonic Temple, Des Moines, Ia., designing engrs.

Kan., Wichita—City election Aug. 12, to vote on $175,000 bonds to build bridge over Big River on Maple St. P. L. Brockway, city engr.

Mo., Forsythe—State Highway Dept., Jefferson City, plans to build 18 ft. bridge, over White River, here. About $72,600.

BIDS DESIRED

Me., Augusta—Until Aug. 11, at office of Supervising Engineer, Dept. Pub. Wks., Quebec, Que., Canada, building substructure and superstructure of Edmundson N. B.-Madawaska, Me., International Bridge; advertised in this issue.

Pa., Harrisburg—Until Aug. 24, by T. W. Templeton, supt. pub. grounds & buildings, constructing Soldiers and Sailors Memorial Bridge, in Capitol Park; advertised in this issue.

Va., Dungannon—Until Aug. 11, by Bd. Supervs. Scott Co. (Gate City), building 71½ ft. steel beam bridge over Little Stony Creek on Hanging Rock Rd., near here.

Georgia—Until Aug. 5, by State Highway Dept., at div. office, Americus, building 120 ft. rein.-con. bridge, Ben Hill Co., involving 0.5 acres clearing and grubbing 1,160 lin. ft. timber piling, 167.58 cu.yd. Class "A" and 111.32 cu.yd. Class "B" concrete, 40,320 lb. reinforcing steel, etc.; 300 ft. bridge Irwin Co., 2,080 lin. ft. timber piling, 404.76 cu.yd. Class "A" and 100.76 cu.yd. Class "B" concrete, 91,742 lb. reinforcing steel, etc. W. C. Cays, Jr., div. engr.

O., Kenton—Until Aug. 6, by D. C. Jones, and Hardin Co., furnishing labor and material building 50 ft. span steel girder bridge with rein.-con. flooring.

Ill., Edwardsville—See "Excavation and Dredging."

Wis., Fond du Lac—Until Aug. 3, by Bd. Pub. Wks., building 107 ft. bridge, on Scott St., Plan "A" plate girder, "B" concrete arch. Pinney & Scarliffe, 1200 Sycamore St., Milwaukee, engrs. Noted May 6.

Minn., Cambridge — Until Aug. 6, by Comrs. Isanti Co., building State Bridge 3332, to have three 18 x 75 ft. truss spans on rein.-con. abutments and gravity piers. About $25,000. P. M. Torell, Cambridge, engr.

Missouri—Until Aug. 9, by State Highway Bd., at St. Joseph, building skew slab superstructure and 4 rein.-con. pile bents over Contrary Creek, Sta. 64 plus 32, to have three 27 ft. clear spans, involving 28,000 lb. steel reinforcement, 10 cu.yd. Class "A" and 215.7 cu.yd. Class "B" concrete, cost $9,491; through girder superstructure and 2 rein.-con. abutments over Rushville Drainage Ditch, Sta. 649 plus 51, to have one 40 ft. clear span 25,105 lb. steel reinforcement, 6.1 cu.yd. Class "A" and 244.1 cu.yd. Class "B" concrete, $9,887; deck girder superstructure, 2 rein.-con. abutments and 1 temporary bridge, over Drainage Ditch, Sta. 229, to have one 24 ft. clear span, 10,730 lb. steel reinforcement, 5.5 cu.yd. Class "A" and 109.9 cu.yd. Class "B" concrete, $4,788; skew slab superstructure, 2 rein.-con. abutments and 1 concrete pier over Drainage Ditch, Sta. 515 plus 65, to have two 19 ft. clear spans, 8,596 lb. steel reinforcement, 9.9 cu.yd. Class "A," 104 cu.yd. Class "B" and 192 cu.yd. Class "C" concrete, $4,869; skew slab superstructure, 2 rein.-con. abutments and 2 piers, over Drainage Ditch, Sta. 357 plus 90, to have three 15 ft. clear spans, 11,840 lb. steel reinforcement, 9.8 cu.yd. Class "A," 123.5 cu.yd. Class "B" and 44.8 cu.yd. Class "C" concrete, $6,381. Above projects in Buchanan Co. Federal Aid Project 49, Sect. B and all to have 18 ft. clear roadway.

Que., Contrecoeur—Until Sept. 2, by S. Cormier, secy.-treas., building steel bridge over River Aulnaies, on the main road. About $150,000. Engineer, c/o Dept. Pub. Wks., Quebec.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. H., Manchester—M. F. Shea, dir. Bd. Pub. Wks., City Hall, received bids July 6, building bridge over Merrimack River, from Conners Bros. Co., 15 West 91st St., New York City, $152,000; United Constr. Co., 24 James St., Albany, N. Y., $242,700. Noted June 17.

★**N. H., Scott**—Boston & Maine R. R., North Sta., Boston, let contract building Bridge No. 131, concrete and stone, here, to A. Michelini, Reading, Mass. About $28,000.

★**Vt., Orleans**—Boston & Maine R. R., North Sta., Boston, let contract building concrete and stone bridge, here, to J. W. Buswell, Salisbury, Mass. About $25,000.

★**Mass., Holden**—Boston & Maine R. R., North Sta., Boston, let contract building Bridge 172, concrete, to W. H. Pike & Sons, 264 Essex St., Lawrence. About $33,000.

★**Conn., Stamford**—Bd. Selectmen let contract building 102 ft. rein.-con. bridge, 38 ft. wide, over Rippowam River, on Greenwich Ave., to Genovese Bros., Main and Spruce Sts. About $35,000. Noted July 1.

★**Pa., New Castle** — Lawrence Co. let contract building through plate girder bridge encased in concrete, over Neshannock Creek, on South Jefferson St., to have 44 ft. C to C girders and 30 ft. brick roadway, to Standard Eng. Co., Toledo, O., $151,617.

★**O., Defiance**—Defiance Co. let contract building 200 ft. Brunersburg Bridge, 22 ft. wide, over Tiffin River, with 3 arches, to Roberts Supply Co., 419-21 Oper Blk., $41,777.

★**Mich., Detroit**—Wayne Co. let contract fabricating and erecting 120 ft. low truss, 24 ft. roadway and two 5 ft. sidewalks for State Reward Bridge 5, to Amer. Bridge Co., Beecher St. and along tracks of Michigan Central R.R., $25,429; building rein.-con. floor on same, to G. F. Bristol, Highland Park, $2,500. Noted March 11.

★**N. Y., Schenectady** — New York State Canal Bd., Albany, let contract building foundation and pier for Great Western Gateway Bridge connecting Schenectady and Scotia, to Amer. Pipe & Constr. Co., 112 North Broad St., Phila., $961,963.

★**Mich., Detroit**—Wayne Co. let contract building 2 rein.-con. abutments for State Reward Bridge 7, also rein.-con. floor on same, to G. F. Bristol, Highland Park, $19,112 and $2,500 respectively; fabricating and erecting 120 ft. truss, to Amer. Bridge Co., Beecher St. and along tracks of Michigan Central R.R., $19,309. Noted March 11.

★**Illinois**—Dept. Pub. Wks. and Bldgs., Springfield, let contract building bridges on following sections of Vandalia-Cairo Highway, Sects. 26B and 29B, Marion Co., Sects. 32B and 33B, Washington Co., to H. C. Halleck, Rushville, $57,482; Sect. 24B, Fayette Co., Sects. 25B, 27B and 28B, Marion Co., 30B, Marion and Washington Counties, and Sect. 31B, Washington Co., to W. C. Johnson, Belleville, $119,667. Noted July 1.

★**Ia., Chariton**—Lucas Co. let contract building 120 ft. concrete skew high truss bridge, 18 ft. wide, to Pittsburgh-Des Moines Steel Co., Des Moines. About $28,700. Noted April 22.

Ia., Des Moines—Polk Co. received bids July 15, building one 18 x 24 ft. concrete slab and one 18 x 120 ft. steel high truss span bridges, also 6 concrete box culverts, from 2 x 2 ft. to 6 x 6 ft., from Alexander & Higbie, 2733 6th Ave., $37,673; F. E. Marsh & Co., Jefferson, $39,866; Koss Constr. Co., 2818 5th St., $39,875. Work involves 635 cu.yd. rein.-con., 2,240 lin.ft. wooden piling, 13,087 lb. steel bars and 92,600 lb. structural steel.

★**Ia., Nevada**—Bd. Supers. Story Co. let contract building steel plate girder bridge on concrete piers and abutments over Squaw Creek on Lincoln Way, to Cole Bros., Ames, $15,258. Noted June 17.

★**Ia., Sigourney**—Keokuk Co. let contract building 20 x 20 ft. rein.-con. slab bridge and several rein.-con. box and circular culverts, varying in size from 2 x 2 ft. to 6 x 6 ft., to J. Ritzinger, Sigourney. About $35,200. Noted April 1.

★**Ia., Sioux City**—Woodbury Co. let contract building 8 concrete and steel bridges and culverts, to Pickus Eng. & Constr. Co., Sioux City, $33,048.

★**Minn., Minneapolis**—City will build 820 ft. rein.-con. bridge over Lake Nokomis, to have forty 20-ft. spans, 40 ft. roadway, and two 6 ft. walks. About $100,000. Work will be done by day labor.

★**Kan., Oswego**—Labette Co. let contract building 15 concrete bridges, to M. E. Gilliloz, Monnett, Mo., $28,999. Noted July 8.

Cal., Oroville—State Highway Comn., 515 Forum Bldg., Sacramento, received bid July 19 building substructure and approach spans for bridge across Feather River, near here, Federal Aid Project 61, from G. Pollock Co., Forum Bldg., Sacramento, $231,830. Work involves 1,850 cu.yd. mass of pier bases (including crib, caisson or cofferdam), at $90 per cu.yd., 1,880 cu.yd. Class "C" portland cement concrete in pier shafts (excepting top 5 ft.), $26, and 470 cu.yd. Class "A" portland cement concrete in pier tops, approach spans and bents, $22. Noted July 8.

Streets and Roads

PROPOSED WORK

Conn., New Haven—City plans to pave 22,000 sq.yd. various streets, concrete, asphalt or bituminous macadam. F. L. Ford, city engr.

N. J., Bayonne—City having plans and specifications prepared for improving West 10th St. from Ave. A to Ave. C, rein.-con. About $50,000. C. O'Neil, clk.

N. J., East Orange—Essex Co. (Newark) soon receives bids paving Sanford St., here, involving 4,000 ft. bitulithic. Cost to exceed $25,000. F. J. Reimer, Newark, co. engr.

Pa., Phila.—City plans to expend $1,475,000 on street improvements, of this amount $500,000 will be devoted to grading 9½ mi., $375,000 for paving 12¾ mi. with asphalt and $62,500 each for paving 1½ mi. granite block and 1½ mi. with vitr. block, also $150,000 for improving 4½ mi. county roads with bituminous macadam. An important feature of this work is the extension of Delaware Ave. between Fairmount Ave. and Laurel St., which will involve the demolition of considerable property and repaving to its full width with granite block.

W. Va., Huntington — City soon receives bids widening 5th Ave. from 8th to 9th Sts. About $30,000. A. B. Maupin, Huntington, engr.

W. Va., Keyser—Comrs. Mineral Co. soon receive bids paving 2½ mi. road from Blaine to Elk Garden, bituminous macadam. About $55,000. S. H. Lee, co. engr.

Streets and Roads (Continued)

W. Va., Lewisburg—Greenbrier Co. plans election soon to vote on $102,500 bond issue, to improve Blue Sulphur Turnpike from Monroe Co. line to Meadow Bluff Dist. line. F. R. Rader, Lewisburg, engr.

W. Va., Madison—Boone Co. soon receives bids grading 8 mi. Charleston-Logan Turnpike, Peytona Dist. Election Aug. 3 to vote on $67,000 bonds for project. J. P. Blundon, co. engr.

W. Va., Madison—Comrs. Boone Co. rejected bids received July 12, grading 3.3 mi. road, involving 33,000 cu.yd. earth excav., 310 cu.yd. concrete and 924 ft. vitr. concrete pipe. P. Blundon, co. engr. Noted June 17.

W. Va., Marlington—Pocahontas Co. voted $300,000 bonds to grade 10 mi. Durbin-Bartow-Arbovale Rd. and 7 mi. Greenbank-Dunsmore Rd. S. L. Brown, clk.

W. Va., Martinsburg—Comrs. Berkeley Co. soon receive bids hard surfacing 3 mi. road between Cumberland Valley Bridge and Wellton, Hedgeville Dist., Kentucky rock asphalt. About $63,000. C. N. Stuckey, Martinsburg, engr.

W. Va., Parsons—Tucker Co. plans to pave 1.9 mi. Thomas-Oakland Rd., concrete. About $50,000. J. J. Taney, co. engr.

W. Va., Union—Comrs. Monroe Co. soon receive bids grading 6¼ mi. Wolf Creek-Alderson Rd. About $53,000. J. H. Sydenstricker, co. engr.

S. C., Kingstree—Comrs. Williamsburg Co. received no bids July 7, grading, surfacing and building bridges on 8.5 mi. sand clay road, Federal Aid Project 80. Work will be readvertised. J. M. Martin, co. engr. Noted July 1.

O., Bucyrus—City rejected bids July 6, improving Lane and East Sts. Noted July 1.

O., Canton—City plans to grade, curb, drain, build storm sewers, sidewalks and pave 1,360 ft. Elgin Ave., N. W., 30 ft. wide, involving 4,715 sq.yd. each vitr. brick and vertical fibre on 6 in. concrete base, 2,390 lin.ft. stone or concrete curbing, 13,065 sq.ft. concrete and stone sidewalks, 6,106 cu.yd. embankment, cost $51,969; repave, redress, reset stone curbing, lay concrete sidewalks, grade and drain 2,100 ft. Market Ave., S., 50-69 ft. wide, 12,750 sq.yd. vitr. brick on 6 in. concrete base, 7,430 sq.yd. asphalt, 1,130 lin.ft. concrete curbing, 5,292 cu.yd. earth excav., $122,062; 5,058 ft Tuscarawas St., E., 46-52 ft. wide, 26,987 sq.yd. each vitr. brick and vertical fibre on 6 in. concrete base, 13,465 yd. each vitr. brick and vertical fibre on 6 in. concrete base, 13,465 sq.yd. asphalt, 1,600 lin.ft. protected concrete curbing, 3,114 sq.ft. brick guttering, 1,820 sq.ft. concrete sidewalks, 7,809 cu.yd. earth excav., $201,406. Alternate bids on asphaltic concrete, bitulithic, vitr. brick and sheet asphalt paving. W. E. Sarver, city engr.

O., St. Clairsville—Belmont Co. rejected bid received for paving 11,418 ft. Colerain Pike, 16 ft. wide, concrete. About $72,000. Noted June 24.

O., St. Clairsville—Belmont Co. rejected only bid received July 19, paving 2 mi. Flushing-Union Twp. Rd., 16 ft. wide, vitr. brick on concrete base. Noted July 8.

O., Steubenville—City plans to pave 18,500 sq.yd. 7th St. from South to Buckeye Sts., involving vitr. brick, sand cement cushion and cement filler. About $161,759. G. McConnell, Steubenville, engr.

O., Toronto—City rejected only bid received July 19, furnishing labor and material for grading, curbing and paving Cleveland, Freeman and Volmer Sts. Work will be readvertised. M. Boyd, Toronto, engr. Noted July 8.

Minn., Alexandria—Douglas Co. received no bids July 12, grading and graveling 7 mi. Federal Aid Project 131. Project abandoned.

Minn., Fairmont—Martin Co. rejected bids July 12 grading and graveling 6 mi. Federal Aid Project 71, 24 ft. wide. Project abandoned.

Neb., Omaha—Comrs. Douglas Co. plan to grade and pave 4 mi. Ridge Rd. from South Omaha to Bellview, probably 30 ft. wide, concrete. About $160,000.

South Dakota—State Highway Comn., Pierre, will receive bids in 1 or 2 months, grading and draining 13.11 mi. Yankton-Vermillian Rd., 36 ft. wide, Yankton Co., involving 59,000 cu.yd. excav., 14,000 lb. reinforcing steel, 170 cu.yd. concrete for culverts, etc. About $55,000. F. S. Peck, state highway engr.

Missouri—State Highway Dept., Jefferson City, plans to build 4.84 mi. Sedalia-Springfield Rd., 24 ft. wide, Dallas Co., involving 17,000 cu.yd. earth excav., 25,555 sq.yd. gravel surfacing and culverts; 20 mi. St. Louis-Springfield Rd., 24 ft. wide, Phelps Co., 70,000 cu.yd. earth and 5,000 cu.yd. rock excav., 42,320 sq.yd. gravel surfacing, 960 lin.ft. stone underdrain, 625 cu.yd. rip rap, culverts, one 48 ft. and one 36 ft. span bridges; 6.5 mi. Monroe City-Hunnewell Div. of Pikes Peak Ocean to Ocean Highway, 24 ft. wide, Marion Co., 33,500 cu.yd. earth excav., 34,320 sq.yd. gravel surfacing, 15 culverts, one 30 ft. span bridge; 2.33 mi. Villa Ridge Cut off, 24 ft. wide, 8,000 cu.yd. earth excav., 12,310 sq.yd. gravel surfacing, 18 culverts; 7.64 mi. Jamesport-Trenton Rd., 24 ft. wide, Davies Co., grading and building bridges; 9 mi. Springfield-Hollister Rd. (Spokane Special Rd. Dist.) 24 ft. wide, Christian Co., 22,500 cu.yd. earth excav., 23,311 sq.yd. gravel surfacing and culverts; 6.5 mi. Springfield-Hollister Rd. (Selmore-Highlandville Special Rd. Dist.), 24 ft. wide, Christian Co., 17,788 cu.yd. earth excav., 34,320 sq.yd. chat surfacing, culverts; 7 mi. Joplin-Siloam Springs Rd. (Elk River Special Rd. Dist.), 24 ft. wide, McDonald Co., 12,000 cu.yd. earth and 666 cu.yd. rock excav., culverts, 2 bridges, 1 to have two 150 ft. and other two 16 ft. spans; 4.72 mi. McNutt Special Rd. Dist., 24 ft. wide, St. Clair Co., 14,830 cu.yd. earth excav., 500 cu.yd. overhaul, 44,545 sq.yd. 2 course gravel surfacing, 3.8 cu.yd. Class "C" concrete masonry; 1 mi. Fulton-Mexico Rd., 24 ft. wide, Calloway Co., 18,000 cu.yd. earth and 2,000 cu.yd. rock excav., 9,400 sq.yd. gravel surfacing, 7 culverts and 1 bridge.

Missouri—State Highway Dept., Jefferson City, plans to build 8.24 mi. road between Potosi and Berryman, 20 ft. graded earth, Washington Co., cost $43,093; 4.25 mi. gravel road betwen Sequioto Park and Christian Co. line, 15 ft. wide, Greene Co., $21,250; 9 mi. gravel road between Dudley and Dexter, 16 ft. wide, Stoddard Co., $90,000.

Missouri—State Highway Dept., Kennett, received no bids July 16, building 8.62 mi. Dexter-Malden-Kennett Rd., 24 ft. wide, Federal Aid Project 26, Dunklin Co. About $107,288. Noted July 8.

Mo., New Madrid—New Madrid Co. received no bids July 5, improving 19.3 mi. State Rd. Project S. 18.93, 24 ft. wide, involving 75,685 cu.yd. earth excav., 24,359 cu.yd. borrow, 36.3 cu.yd. Class "B" and 121.9 cu.yd. Class "C" concrete masonry, 2,520 lb. reinforcements for concrete masonry, 930 lin.ft. 12-24 in. vitr. pipe culverts. About $57,186. C. V. Hansen, highway engr. Noted June 17.

Mo., St. Louis—City having plans prepared for improving various streets. About $360,000. Noted May 27.

Tex., Angleton—Brazoria Co. having plans prepared grading, surfacing with sand and building timber bridges and trestles on 5.73 mi. Highway 36 in Rd. Dist. 24, 16 ft. wide, involving 11 acres clearing and grubbing, 54 cu.yd. earth excav., 7,432 cu.yd. sand, 48,437 ft. timber and 1,520 lin.ft. timber piling. About $39,964. W. A. Randle, Freeport, engr.

Tex., Breckenridge—Stephens Co. having plans prepared grading, surfacing and draining 31.8 mi. Highway 1, Federal Aid Project 199, from Palo Pinto to Shackelford Counties, 16, 18 and 20 ft. wide, involving 70 acres clearing and grubbing, 255,000 cu.yd. earth borrow, 252,000 cu.yd. earth overhaul, 273,448 sq.yd. bituminous, 100,000 cu.yd. crushed rock, 68,288 sq.yd. 2 in. bituminous concrete, 1,800 cu.yd. Class "A", 1,500 cu.yd. Class "B" and 800 cu.yd. Class "C" concrete. About $1,251,645. Nagle, Witt & Rollins, Amer. Exch. Natl. Bank Bldg., Dallas, engrs.

Tex., Henderson—Rusk Co. having plans prepared grading, surfacing and building rein.-con. bridges and culverts on 37.71 mi. Highways 26 and 43, involving 119 acres clearing and grubbing, 14.78 mi. sodding slopes, 240,000 cu.yd. earth excav., 1,581 lin.ft. 24-36 in. pipe culverts, 215,000 lb. reinforcing steel, 1,675 cu.yd. Class "A", 795 cu.yd. Class "B" and 121 cu.yd. Class "C" concrete, etc. About $254,215. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Utah, Ogden—City plans to pave various streets in Dist. 131, involving 13,047 sq.yd. asphalt or bitulithic on concrete base, cost $47,830; Washington Ave. from Ogden River to city limits, 38,135 sq.yd. concrete or bitulithic, 3,470 lin.ft. curbing and guttering, $182,500. W. M. Tracy, City Hall, engr.

Utah, Springville—City plans to pave 2.3 mi. Main St., 18 ft. wide, 7 in. concrete. About $65,000. C. A. Swan, Provo, engr.

Utah, Wellsville—City rejected bids July 10, furnishing labor and material building 32,000 lin.ft. 4-6 ft. walks. T. H. Humpherics, Logan, engr. Noted June 17.

Cal., National City—City voted $180,000 bonds to pave 7.5 mi. various streets, 16-18 ft. wide, 5 in. cement concrete.

Que., Laprairie—Town Council soon receives bids building 5 mi. concrete roadway, 14 ft. wide. About $150,000.

Que., Outremont—City plans to pave Cote St., Catherine Rd. About $75,000.

Ont., Toronto—City plans to pave and curb 1¼ mi. Bloor St. from Quebec Ave. to Runnymede Rd., 48 ft. wide, involving 16,000 sq.yd. asphalt. About $69,263. R. C. Harris, city engr.

BIDS DESIRED

Rhode Island—Until Aug. 4, by State Bd. Pub. Rds., State House, Providence, building 2 mi. state highway, beginning at Pawtucket City Line and extending west on Mineral Springs Ave., North Providence; advertised in this issue.

Connecticut—Until Aug. 2, by C. J. Bennett, state highway engr., Hartford, building 11,400 ft. 3 in. bituminous macadam stone macadam over 7 in. broken stone base on Columbia-Vernon Highway, cost $100,000; 3,650 ft. Columbia Highway and 25,000 ft. Brooklyn-Hampton Highway.

N. Y., Buffalo—Until July 31, by Dept. Pub. Wks., paving Warwick Ave. from Grider St. to Wyoming Ave., Ryan St. from southwesterly curb line of Seneca St. to point 500 ft. southwesterly, Maywood Pl. from Beyer Pl. to Seneca St., repaving Spring St. from Genesee to Cherry Sts., Cypress St. from Michigan Ave. to Pine St., Franklin St. from Allen to North Sts., Hewitt St. from Forest Ave. to Fernwood Pl., Bailey Ave. from Bway. to Genesee St. A. W. Kreinheder, comr. Noted July 1.

N. Y., Johnstown—Until Aug. 2, by G. E. Yerdon, city clk., paving and curbing 1,700 ft. Miller St., paving 2,400 ft. Maple Ave., 20 ft. wide; advertised in this issue.

N. Y., New York—Until Aug. 3 by H. H. Bruckner, pres. Bronx Boro., repairing sheet asphalt pavement in railroad area, when and where directed.

N. J., Belvidere—Until Aug. 11, by Bd. Freeholders Warren Co., building section of New Brunswick Turnpike. M. S. Faust, clk.; advertised in this issue.

Pa., Braddock—Until Aug. 2, by city, paving various streets, involving 3,300 sq.yd. brick or concrete. W. H. Williams, supt. pub. wks. Noted May 20.

Del., Middletown—Until Aug. 4, by Town Council, paving Broad and Main Sts., involving 480 cu.yd. excav., 510 sq.yd. concrete gutter, 480 cu.yd. concrete roadway and 11,000 lin.ft. elastite. C. M. Upham, ch. engr.; advertised in this issue.

Maryland—Until Aug. 9, by State Rds. Comn., Baltimore, grading and draining 1.99 mi. state highway from Friendsville toward Love, Garret Co., Contr. 485. J. N. Mackall, chn.; advertised in this issue.

W. Va., Charleston—Until Aug. 14, by Clerk Kanawha Co., grading and building bridges on 33.9 mi. roads in Cabin Creek Dist. L. C. Massey, clk.

W. Va., Princeton—Until Aug. 10, by L. G. Bowling, clk. Mercer Co. shale surfacing 20 mi. Duhring-Goodwill Rd., 9 ft. wide. E. G. Barton, co. engr.

W. Va., Webster Springs—Until Aug. 24, by Clerk Webster Co., building, grading and draining 3.3 mi. roads, in Fork Lick Dist. near Pleasant Grove Church to Jay Point Mountain. J. W. Hancock, co. rd. engr.; advertised in this issue.

Ga., Athens—Until Aug. 5, by Comrs. Rds. and Revenues, Clarke Co. building 3.73 mi. Athens-Lexington Rd. Federal Aid Project 129. Work involves 7,694 cu.yd. common excav., 21.4 cu.yd. Class "B", and 11.7 cu.yd. Class "C" concrete, 1,902 lb. reinforcing steel, 39,328 sq.yd. paving, 20.4 cu.yd. Class "A" concrete in culverts and 37.8 cu.yd. Class "B" concrete in headwalls.

Ga., Athens—Until Aug. 5, by Comrs. Rds. and Revenues, Clarke Co., building 1.71 mi. Athens-Danielson Rd., involving 4,928 cu.yd. common excav., 18,000 sq.yd. paving, 2.38 cu.yd. Class "B" concrete in headwalls, etc.

Streets and Roads (Continued)

Ga., Carrollton—Until Aug. 18, by Bd. Comrs. Rds. and Revenues Carroll Co., building 11.11 mi. sand clay road between Sta. O and 586-79, State Aid Project S-4-5. Work involves 67,841 cu.yd. earth excav. and borrow, 21,727 cu.yd. top surfacing, 1,345 lin.ft. pipe, 86.60 cu.yd. Class "B" concrete in headwalls, 15 cu.yd. Class "A" concrete for extending arch culverts, 11.11 mi. grassing slopes, etc.

Fla., Fort Myers—Until Aug. 5, by J. W. Owens, city clk., paving 2,607 sq.yd. Oak St. from Atlantic Coast Line R. R. to Henry St.; 1,156 sq.yd. Hendry St. from Oak to 1st Sts.; 1,106 sq.yd. Monroe St. from Oak to 1st Sts.; 16,007 sq.yd. 1st St. from Monroe St. to Evans Ave. Alternate bids will be received on cement concrete, asphaltic concrete, sheet asphalt, asphaltic block and vitr. brick. J. A. Davidson & Son, city engrs.

Miss., Hooker—Until Aug. 15, by Great Southern Lumber Co., Bogalusa, La., building 5 mi. log road near here, involving 25 acres clearing, 130 stations grubbing, 80,000 cu.yd. earth excav. and 25,000 cu.yd. overhaul. J. H. Cassidy, asst. genl. mgr.

Miss., Poplarville—Until Aug. 4, by Bd. Supervs. Pearl River Co. building 12.98 mi. Federal Aid Project 93, between here and Lumberton, involving 18.5 acres clearing and grubbing 33,941 cu.yd. excav., 112.2 cu.yd. concrete, 70,200 ft. lumber in bridges, 20,310 cu.yd. gravel, 3,696 lb. reinforcing steel, etc. X. A. Kramer, c/o State Highway Dept., Jackson, engr.

Ohio—Until Aug. 20, by State Highway Comn., Columbus, building roads in following counties:

Ashland Co., Sect. D, Mansfield-Wooster Rd., 3.509 mi. grading, constructing bridges and culverts and paving with monolithic brick or concrete. State to furnish brick. About $152,321.

Sect. "Jeromeville," Mansfield-Wooster Rd., .039 mi. grading, constructing bridges and culverts and paving with monolithic brick or concrete. $7,992.

Sect. "Hayesville," Mansfield-Wooster Rd., .624 mi., grading, constructing bridges and culverts and paving with monolithic brick or concrete, $33,175.

Clermont Co., Sect. K, Cincinnati-West Union Rd., 5.489 mi., grading, constructing bridges and culverts and paving with waterbound macadam or bituminous macadam, $182,362.

Sect. A, Milford-Vera Cruz Rd., 2.443 mi., grading, constructing bridges and culverts and paving with waterbound macadam, $69,552.

Hardin Co., Sect. E, Findlay-Kenton Rd., 2.08 mi., grading, constructing bridges and culverts and paving with bituminous concrete, $97,721.

Richland Co., Sect. M, Mansfield-Galion Rd., .682 mi., grading, constructing bridges and culverts and paving with brick on concrete base, $42,537.

Sandusky Co., Sect. U, Sandusky-Clyde Rd., .995 mi., grading, constructing bridges and culverts and paving with rein.-con., $41,645.

Sects. C-1 and C-2, Fremont-Bowling Green Rd., 2.222 mi., grading, constructing bridges and culverts and paving with brick on concrete base or plain concrete, $113,098.

Vinton Co., Sect. "Hamden," McArthur-Jackson Rd., .96 mi., grading, constructing drainage structures and paving with brick on rolled base, $46,052.

Ashtabula Co., Sect. E, Jefferson-Andover Rd., 1.22 mi., resurfacing with brick, $41,992.

Crawford Co., Sect. A, Galion-Bucyrus Rd., 1.13 mi., resurfacing with bituminous concrete on Kentucky rock asphalt, $32,637.

Huron Co., Sect. C, Monroeville-Chicago Junction Rd., 1.78 mi., resurfacing with waterbound macadam, $23,967.

Richland Co., Sect. H, Mansfield-Mt. Gilead Rd., 4.36 mi., resurfacing with bituminous macadam, $92,725.

Warren Co., Sect. D, Cincinnati-Chillicothe Rd., 2.99 mi., resurfacing with waterbound macadam, $52,046.

Lorain Co., Sect. M, Oberlin-Elyria Rd., 1.72 mi., resurfacing with bituminous macadam, $34,395.

O., Louisburg—Until Aug. 4, by Comrs. Franklin Co., grading, draining and paving 1,260 ft. West Broad St. from Hogue to West Corporation Aves., 55 ft. wide, 3 in. sheet asphalt with 2 in. wearing surface on 6 in. concrete base. About $27,786. R. W. Smith, clk. C. C. Lattimer, surveyor.

O., Massillon—Until Aug. 6, by Comrs. Stark Co. (Canton), building new floor on Columbia Heights Bridge, here, involving 19,800 sq.ft. surfacing and extending scuppers, 2,200 sq.yd. creosote block wearing surface, including expansion joints. W. C. Schick, clk.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Aug. 2, Dearborn Co., Lawrenceburg, 12,847 ft. W. Grelle Rd., Caesar Creek Twp., broken stone. A. E. Jackson, aud.

Washington Co., Salem, 19,316 ft. Salem and Delaware Creek Rd., Washington Twp.; 9,652 ft. Salem and Martinsburg Rd., Pierce Twp.; 14,069 ft. Campbelsburg and Palmyra Rd., Howard Twp. E. E. Batt, aud.

Aug. 3, Hancock Co., Greenfield, 15,390 ft. N. H. Fry et al Rd., Center Twp.; 13,300 ft. L. F. Richman Rd., Sugar Creek Twp., gravel. A. Cooper, aud.

Bartholomew Co., Columbus, 29,154 ft. Sawyer Rd., Harrison Twp., gravel and stone. R. Henderson, aud.

Morgan Co., Martinsville, 8,009 ft. E. Crone Rd., Adams Twp.; 5,293 ft. Elmer Stierwall Rd., Adams Twp.; 2,935 ft. J. F. Lewis Rd., Ashland Twp., crushed stone; 18,896 ft. J. E. Williams Rd., Green Twp.; 5,320 ft. E. Lambert Rd., Gregg Twp., gravel. H. H. Nutter, aud.

Aug. 4, Whitley Co., Columbia, 11,195 ft. Orville Huffman et al Rd., Washington Twp., gravel. W. K. Burwell, aud.

Michigan—Until Aug. 14, by State Dept., at dist. office, Port Huron, grading, draining and surfacing 1.192 mi. State Trunk Line Rd. 27-2, 20 ft. wide. Former bids rejected. Noted July 15.

Mich., Bessemer—Until Aug. 3, by Bd. Rd. Comrs., Gogebic Co., grading, draining and surfacing 4.039 mi. State Trunk Line Rd. 26-6, Sect. A, 16 ft. wide, involving 7,770 cu.yd. earth excav., 37,911 sq.yd. gravel surface, 8,000 cu.yd. special ditch excav., etc.

Mich., Fenton—Until Aug. 5, by Village Clerk, grading, draining and surfacing 1.65 mi. State Trunk Line Rd. 87-2 and 65-1 R, 20 ft. wide, involving 19,177 sq.yd. bituminous concrete and 6,750 cu.yd. earth excav. State Highway Dept., Lansing, engrs.

Mich., Ludington—Until Aug. 10, by Bd. Comrs. Mason Co., grading, draining and surfacing .847 mi. State Trunk Line Rd. 11-23, Sects. A and B, 18-20 ft. wide, involving 9,194 sq.yd. concrete, bituminous concrete, bituminous macadam or bituminous concrete on macadam base, 2,988 cu. yd. earth excav.

Ill., Chicago—Until Aug. 2, by Bd. Comrs. Cook Co., H. A. Zender, supt. Pub. Serv., G. A. Quinlan, co. engr., 1126 County Bldg., paving 28,531 ft. Homewood-Lansing Rd., Sect. 6, 8, 15 D, Route 32, Thornton and Bloom Twps., 18 ft. wide, 6 and 7 in. bituminous concrete with binder course, cost $351,829, or 6 and 7 in. portland cement concrete, $268,020; 2,188 ft. Archer Ave., Sect. 46, 15 D, Route 19, Lyons Twp., 18 ft. wide, 8 in. bituminous concrete with binder course, $18,486, 8 in. portland cement concrete, $14,082; 15,352 ft. Glenview Rd., Sect. 69, Northfield Twp., 18 ft. wide, 8 in. bituminous concrete with binder course, $156,850, 8 in. portland cement concrete, $119,486.

Ia., Bloomfield—Until Aug. 11, by Comrs. Davis Co., improving 10.32 mi. various roads, involving 147,444 cu.yd. excav., 2,190 lin.ft. 6-12 in. tile and 5 tile intakes. H. Hansel, Bloomfield, engr.

Ia., Forest City—Until Aug. 3, by Comrs. Winnebago Co., improving 22 mi. various roads, involving 15,257 cu.yd. earth excav. and 28,300 cu.yd. gravel. G. M. Dickson, Forest City, engr.

Ia., Muscatine—Until Aug. 4, by Comrs. Muscatine Co., improving various roads, involving 115,055 cu.yd. excav. G. Halbfass, Muscatine, engr.

Ia., Sidney—Until Aug. 3, by Comrs. Fremont Co., improving 18.07 mi. various roads, involving 256,669 cu.yd. excav., 120 lin.ft. 12 in. drain tile and 2 tile intakes. B. L. Gray, Sidney, engr.

Minn., Eveleth—Until Aug. 3, by city, paving various streets, avenues and alleys. Cost to exceed $25,000.

Minn., Hastings—Until Aug. 10, by Dakota Co. improving Federal Aid Project 23, State Rd. 1, involving 48,000 ft. grading, 10,650 sq.yd. paving, etc. About $55,000. C. L. Methven, Hastings, engr. Noted Mar. 25.

Minn., Red Lake Falls—Until Aug. 6, by Red Lake Co., grading and graveling 8 mi. Federal Aid Project 144, 24 ft. wide. About $56,000. H. E. Palmer, Red Lake Falls, engr.

S. D., Onacoma—Until Aug. 3, by Comrs. Lyman and Tripp Counties at office of auditor Brule Co. (Chamberlain), surfacing 6 mi. Presho-Winner Rd., 24 ft. wide, involving 1,800 cu.yd. excav., 6,580 cu.yd. gravel surfacing, 525 cu.yd. clay binder. About $25,000.

Missouri—Until Aug. 9, by State Highway Dept., at St. Joseph, building .376 mi. Frederick Ave Rd., 29 ft. wide, Federal Aid Project 94, Buchanan Co., involving 239 cu.yd. earth excav., 2,960 cu.yd. borrow, 6,434 sq.yd. plain cement concrete base course, 6,434 sq.yd. spec. "B" bituminous surface course, 3,785 lin.ft. combination concrete and 240 lin.ft. plain concrete curbing and guttering, cost $30,998; 20.02 mi. Sect. A, St. Joseph-Atchison Rd., 24 ft. wide, Federal Aid Project 49, Buchanan Co. Work involves 35,045 cu.yd. earth and 1,658 cu.yd. rock excav., 210,181 cu.yd. borrow, 9,570 lin.ft. 4 in. tile underdrain, $127,213, also 211,454 sq.yd. 1 course plain cement concrete pavement, and 10,805 lin.ft. wooden guard rail, $814,330. Noted June 10.

Arkansas—Until Aug. 14, by State Highway Comrs., Little Rock, building 8.3 mi. road in Dermott-Collins Rd. Impvt. Dist., Drew and Chicot Counties. Work involves 30 acres clearing and grubbing, 87,300 cu.yd. earth embankment, 885 lin.ft. pile trestle bridges, 180 lin.ft. I beam bridges, 20 ft. span, 650 cu.yd. Class A concrete, 36,600 lb. deformed steel bars, 85,950 lin.ft. concrete curb, 76,720 sq.yd. asphaltic concrete or warrenite surface, 15,350 cu.yd. crushed stone base course in place, or 15,350 cu.yd. gravel base course in place. Pritchett & Fry, 203 Reigler Bldg., Little Rock, engrs.

Tex., Amarillo—Until Aug. 20, by R. C. Johnson, judge Potter Co., surfacing 10 mi. Highways 13 and 33, 16 and 18 ft. wide, involving 110,078 sq.yd. bituminous concrete, 25,237 cu.yd. gravel and 8,410 cu.yd. clay. About $175,000. Nagle, Witt & Rollins, Amarillo, engrs.

Tex., Canyon—Until Aug. 18, by C. R. Flescher, judge Randall Co., grading and building rein.-con. culverts on 17.03 mi. Highway 33 from here to Clovis Rd., 24 ft. wide, involving 8,590 lin.ft. grader work, 6,438 cu.yd. earth borrow, 107 cu.yd. earth and 250 cu.yd. structural excav., 15,477 lb. reinforcing steel and 193.3 cu.yd. Class "A" concrete. About $28,507. Nagle, Witt & Rollins, Amer. Exch. Natl. Bank Bldg., Dallas, engrs. Noted June 24.

Tex., Groesbeck—Until Aug. 5, by J. E. Bradley, judge Limestone Co., grading, surfacing and draining 23.37 mi. Highway 14, Federal Aid Project 161, 15 ft. wide, involving 17 acres clearing and grubbing, 146,500 cu.yd. earth excav., 1,730 cu.yd. concrete, 165,000 lb. reinforcing steel, etc. About $287,155. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Tex., Spur—Until Aug. 7, by W. L. Powell, judge Dickens Co., grading, surfacing and draining 7.557 mi. Highway 18, Ft. Worth-Roswell Rd., 15 ft. wide involving 2.5 scarifying and reshaping, 16,491 cu.yd. earth excav., 10,242 cu.yd. gravel surfacing, 22,873 lb. reinforcing steel, 55.32 cu.yd. concrete pavement, 281.5 cu.yd. 1:2:4 and 37.12 cu.yd. 1:2½:5 concrete. About $39,316. K. C. Cade, co. engr.

Colorado—Until Aug. 3, by State Highway Comn., Denver, grading and draining 1.357 mi. road between Steamboat Springs and Kremmling, 28 ft. wide, Federal Aid Project 106, Routt Co., involving 10,1[illegible] cu.yd. earth and 1,148 cu.yd. rock excav. and one 60 ft. span steel truss bridge, cost $25,500; 6.647 mi. Steamboat Springs-Hahns Peak Rd., 28 ft. wide, Fedral Aid Project 80, Routt Co., 37,965 cu.yd. earth and 5,174 cu.yd. rock excav., and one 60 ft. span steel truss bridge, $54,000; paving .956 mi. road between Grand Junction and Fruita, 18 ft. wide, Mesa Co., 10,104 sq.yd. concrete, $45,000. J. E. Maloney, state highway engr.

Utah, Lehi—Until Aug. 3, by State Rd. Comn., Salt Lake City, paving 2.47 mi. Main St., 18 ft. wide, 6 in. cement with 2 in. bituminous top, or 7 in. plain concrete. Cost to be borne by city and state. I. R. Browning, state highway engr.

Ontario—Until Aug. 4, by W. A. McLean, deputy minister of highways, Toronto, grading 4 mi. Provincial Highways, near Hamilton, Contr. 122 from city of Hamilton east to Red Hill Contr. 123 from Red Hill east to Sta. 167-00, Contr. 124 from Sta. 214-00 to Sta. 264-00. About $60,000. G. Hogarth, Parliament Bldgs., engr.

Ont., Chapleau—Town receiving bids building 3 mi. sidewalks, involving 70,000 sq.ft. concrete. About $30,000. Chipman & Power, Mail Bldg., Toronto, engrs.

Ont., Chatham—Essex Co. receiving bids paving 2 mi. suburban streets, involving 29,000 sq.yd. rein.-con. About $115,000. W. G. McGeorge, 153 Queen St., engr.

Streets and Roads (Continued)

PRICES AND CONTRACTS AWARDED

(★Indicates Award of Contract)

★**Massachusetts**—State Highway Comn., Boston, let contract building 3,300 ft. highway, Leicester, to C. Bianchi & Co., Inc., Framingham, $61,023. Noted July 22.

★**Mass., Boston**—City let contract paving Clarendon St., bitulithic, to Warren Bros. Co., 142 Berkeley St., $12,614; 1,162 ft. Blackstone St., to J. Landis, $18,633.

Mass., Boston—City received bids July 20, paving Public Alleys 710 and 818, granite block, from J. Landis, $11,084, J. A. Singarella, 220 Devonshire St., $11,340; Faulkland Terrace, (a) Topeka, (b) bitulithic, from J. J. Lane, (a) $13,964, (b) $14,255; Warren Bros., 142 Berkeley St., (b) $14,457.

★**Rhode Island**—State Bd. Pub. Rds., State House, Providence, let contract building 2 mi. road from point 1,000 ft. south of Nanaquaket Bridge, south on Sakonnet Point Rd., in town of Tiverton, to J. Bristow, Narragansett Pier, $87,652. Noted July 22.

★**Connecticut**—State Highway Comn., Hartford, let contract building 3,050 ft. Middlebury-Southbury Rd., Middlebury, 7 in. screened gravel, to J. Arborio, 80 Park St., New Haven.

★**Conn., Wallingford**—M. K. Pickett, Warden, and Court of Burgesses, at office of Boro. Clerk, let contract furnishing labor and material for 12,800 sq.yd. pavement, 1,660 lin.ft. concrete curbing and guttering and 2,300 ft. curbing reset, to Connecticut Natl. Pavements, Inc., New Haven. Cost between $50,000 and $75,000.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received bids July 21, regulating and repaving (1) Atlantic Ave., (2) regulating and paving 19th Ave., (3) resurfacing Kings Highway, (4) building sewer in Ocean Ave., (5) East 7th St., from Consolidated Asphalt Paving Co., 52 9th St., (1) $262,599, (2) $12,810; Uvalde Asphalt Paving Co., 1 Bway., New York City, (1) $265,811, (2) $12,803; Sicilian Asphalt Paving Co., 41 Park Row, New York City, (1) $264,726; Ward & Tully, 2047 West 11th St., (3) $73,014; Millvale Constr. Co., 1455 76th St., (4) $4,217, (5) $3,418; Tomassetti & Co., (4) $5,017, (5) $3,876; A. Ferris, (4) $5,173, (5) $4,334. Noted July 15.

N. Y., New York—H. Bruckner, pres. Bronx Boro., received bids July 20, paving with granite block, (a) East 133rd St. with sheet asphalt, (b) Whitlock Ave. with bituminous concrete, (c) Garfield St., regulating, grading, setting curb, etc., (d) Harlem River Terrace, building sewer in (e) Fox St., from C. Holbrook, 633 Wales Ave., (a) $11,480; P. J. Kearns, 2306 Creston Ave., (a) $11,506; Burnside Contg. Co., 270 Burnside Ave., (a) $11,707; Dayney Asphalt Paving Co., Inc., 438 East 91st St., (b) $29,555, (c) $21,960; Uvalde Asphalt Paving Co., 1 Bway., (b) $29,845, (c) $22,820; Asphalt Constr. Co., 2197 Madison Ave., (b) $32,116, (c) $22,820; J. L. Brusstar, 150th St. and Harlem River, (b) $32,750, (c) $22,152; N. Delbalso, 1481 Hoe Ave., (d) $2,188, (e) $7,461; A. W. Cavalluzo, 1538 Walton Ave., (d) $2,555; Ambrello Co., (d) $2,610; McLoughlin & Buckley, (e) $7,998; N. Dimmenna, 2336 Cambrelling Ave., (d) $2,669, (e) $8,185. Noted July 15.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids July 21, regulating and repaving with asphalt block, (1) Bway. with sheet asphalt, (2) West 18th St., (3) 86th St., (4) 125th St., (5) Bway. with granite block, (6) Greenwich Ave., from Hastings Paving Co., 25 Broad St., (1) $268,858; Cleveland Trinidad Paving Co., Flushing, (2) $13,673, (3) $33,878, (4) $102,452; J. L. Brusstar, Harlem River and 150th St. (2) $15,142, (3) $35,338, (4) $99,735, (5) $302,242; Sicilian Asphalt Paving Co., 41 Park Row, (2) $14,125, (3) $34,053, (4) $98,368; Uvalde Asphalt Paving Co., 1 Bway., (2) $14,347, (3) $35,625, (4) $104,235, (5) $291,356; Asphalt Constr. Co., 2197 Madison Ave., (3) $34,359, (4) $109,765, (5) $306,872; H. G. Gents, (6) $6,385; P. J. Kearns, 2306 Creston Ave., (6) $6,542. Noted July 15.

★**N. J., Hoboken**—City let contract improving 1st St., to W. T. S. Crichfield, Washington St., $93,805; Monroe St., from 8th to 9th Sts. and various other streets, Belgium block, to Letteri & Belezza, Jersey City, $791,245. Noted June 17.

★**N. J., Irvington (Newark P. O.)**—City let contracts to J. Dorer, 646 Nye Ave., paving with concrete 20th St. and Clinton Terrace, $13,721 and $12,790 respectively, also paving and building sewer in Alpine St from Grove to 21st Sts., $16,600.

★**N. J., Upper Montclair (Montclair P. O.)**—Essex Co. let contract paving various roads here, to Osborn & Marcellis, Bellevue Ave., Montclair. About $45,000.

★**W. Va., Moundsville**—Comrs. Marshall Co. let contract grading and draining 3 mi. Cameron-Poplar Springs Rd., 10 ft. wide, to N. M. Leigh, Mannington, W. Va. Noted July 15.

★**N. C., Salisbury**—Comrs. Rowan Co. let contract building 7.2 mi. Federal Aid Project 57, 16 ft. wide, gravel, to W. E. Graham, Mt. Ella, $42,046.

★**S. C., Columbia**—Comrs. Richland Co. let contract building 20 mi. Columbia-Saluda Rd., gravel, to White & Simpson, Chatham, Va. About $123,000.

★**S. C., Lexington**—Bd. Comrs. Lexington Co. let contract sand claying 20 mi. road from Columbia to Saluda, to White & Simpson, Chatham, Va. About $123,000. Noted May 20.

★**Fla., Tavares**—City let contract paving 2 mi. street, 30 and 40 ft. wide, asphaltic concrete, to J. Y. Yeats Co., Tampa. About $92,000.

★**Tennessee**—State Highway Dept., Nashville, let contract surfacing 14.322 mi. State Highway 8, Federal Aid Project 20, Frentress Co., waterbound macadam, to Putnam Constr. Co., Cookeville, $312,876; 19.086 mi. State Highway 32, Federal Aid Project 25, Giles Co., rock asphalt, to Columbia Constr. Co., Columbia, $534,605; bridges over 20 ft. span, to Clayton Paving Co., 808 4th Ave., Nashville, $35,384. Noted July 1.

★**Ohio**—State Highway Comn., Columbus, let contracts building roads in following counties:

Columbiana and Mahoning Counties, Sect. K, Alliance-Salem Rd., 1.02 mi., grading, constructing bridges and culverts and paving with brick, to Jones Constr. Co., Lisbon Rd., Salem, O., $19,875.

Guernsey Co., Sect. C, Cambridge-Caldwell Rd., constructing bridge, to J. P. Mumaw, Byesville, $928.

Huron Co., Sect. L, Norwalk-Plymouth Rd., 2.58 mi., grading and draining roadway, to A. J. Baltes, Norwalk, $10,062.

Mahoning Co., Sect. B, Youngstown-Lisbon Rd., 2.51 mi., grading, constructing bridges and culverts and paving with monolithic brick, to T. W. Miller Constr. Co., Youngstown, $93,193.

Miami Co., Sect. A, Piqua-Troy Rd., .146 mi., grading, constructing, drainage structures and paving with rein.-con., to J. Hennesey, Piqua, $9,609.

Paulding Co., Sect. A-2, Paulding-Ft. Wayne Rd., 2.997 mi., grading, constructing bridges and culverts and paving with monolithic bricks, to S. Monroe & Son Co., Plymouth, $150,112.

Sandusky Co., Sect. S-1, Lime-Sandusky Rd., 1.179 mi., grading, constructing bridges and culverts and paving with brick, to Modern Constr. Co., Fremont, $74,866.

Sect. T, Sandusky-Clyde Rd., 1.261 mi., grading, constructing drainage structures and paving with brick, to Lee Bros. and Petticord, Clyde, $60,980.

Sect. A, Memorial Rd., .3 mi., grading, constructing bridges and culverts and paving with brick, to Modern Constr. Co., Fremont, $39,958.

Trumbull Co., Sect. S, Warren-Sharon Rd., 1.34 mi., grading, constructing bridges and culverts and paving with brick, to McDermott & Hannan, Niles, $70,664.

Sect. R-1, Youngstown-Sharon Rd., .66 mi., grading, constructing bridges and culverts and paving with brick, to W. H. Keesecka, Youngstown, $47,083.

Wyandot Co., Sects. J and K of I. C. H. No. 113, 4.545 mi., grading, constructing bridges and culverts and paving with bituminous concrete, to H. P. Streicher Co., 319 Terminal Bldg., Toledo, $220,423.

★**O., Akron**—City let contract paving Silver Lake Blvd., to Columbia Asphalt Co., 708 2nd Natl. Bank Bldg. About $160,000.

★**O., Akron**—City let contracts to Columbus Asphalt Paving Co., 288 East 16th Ave., Columbus, improving Portage Path from Overlook Ave. to Twin Oaks Rd., involving 795 cu.yd. grading, 935 lin.ft. 12-18 in. drain pipe, 5 cu.yd. Class "2" concrete, 8,685 sq.yd. 6-8 in. concrete base, 1,265 lin.ft. sandstone curbing, 4,645 sq.ft. each 1 and 2 course cement walks, 2,895 sq.yd. wood block pavement, 1,000 lb. reinforcing steel, 2,985 sq.yd. concrete pavement, $29,252; Cook St. from Mary St. to Goodyear Ave., 580 cu.yd. grading, 2,400 sq.yd. 6-8 in. concrete base, 595 lin.ft. sandstone curbing, 2,350 sq.ft. cement walks, 395 sq.yd. each cement, asphalt and mastic pitch filler for brick filler pavement, 800 sq.yd. concrete pavement, 100 lb. reinforcing steel, 405 sq.yd. each cement and cement and asphalt filler for Hillside brick pavement, $8,408; Brookside Ave. from Main to Bellows Sts., 1,900 cu.yd. grading, 2,750 lin.ft. 4 in. under drain pipe, 285 lin. ft. 12 in. drain pipe, 10 cu.yd. Class "2" concrete, 16,950 sq.yd. 7-8 in. concrete base, 3,750 lin.ft. sandstone and 300 lin.ft. granite circular curbing, 700 sq.ft. cement walks, 4,350 sq.yd. each asphalt, asphaltic concrete and bitulithic pavement, 5,650 sq.yd. each asphalt, cement and mastic pitch filler for brick pavement, 4,350 sq.yd. bitoslag and 5,650 sq.yd. each concrete and wood block pavment, 1,000 lb. reinforcing steel, $15,197; Ida Ave. from Main to Bellow Sts., 2,02[illegible] cu.yd. grading, 3,800 lin.ft. 4 in. under drain pipe, 810 lin.ft. 12-15 in. drain pipe, 10 cu.yd. Class "2" concrete, 24,520 sq.yd. 6-8 in. concrete base, 3,790 lin.ft. sandstone and 425 lin.ft. granite circular curbing, 1,000 sq.ft. cement walks, 5,030 sq.yd. each asphalt, asphaltic concrete and bitulithic pavment, 6,030 sq.yd. each cement, asphalt, asphaltic and mastic filler for brick pavment, 5,030 sq.yd. bitoslag, 6,030 sq.yd. each concrete and wood block pavement, 1,000 lb. reinforcing steel, $50,700.

★**O., Akron**—City let contracts grading and laying sidewalks on Storer Ave. and Wildwood Ave. etc., to A. E. Guilford, Arlington and Johnston Sts., $63,910 and $21,868 respectively; Butler Ave., to Bent Bros., Akron, $10,370.

★**O., Cleveland**—City let contract paving West 85th, West 74th, West 65th, West 61st, West 41st Sts. and intersecting streets at New York, Chicago & St. Louis R.R. grade elmination, to Roehl Bros., West 25th St. and Clark Ave., $166,887. Noted July 8.

★**O., Kenmore**—City let contract paving road from Manchester Rd. to west corporation line, brick on 7 in. base, with 1½ in. sand filler and stone curbing, to T. J. McShaffrey Co., 173 South Forge St., Akron. About $117,000.

★**O., North Canton**—City let contract paving Portage St., to P. Christiansen, North Canton. About $75,000.

★**Ind., Wabash**—City let contract paving East St. from Manchester Ave. to Maple St., to Mead Constr. Co., 1023 Lemcke Bldg., Indianapolis, $49,491; building sewer in above street from Ohio to Spring Sts., to A. C. Hipskind, $6,847.

★**Michigan**—State Highway Dept., Lansing, let contract surfacing and grading 3.956 mi. Federal Aid Rd. 1, Sect. A, 16 ft. wide, to Rd. Comn. Muskegon Co., Muskegon, $120,709. Noted May 13.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 5.938 mi. Federal Aid Rd. 33, Sect. B, 16 ft. wide, Alacona Co., involving 24,326 cu.yd. earth excav., 55,740 sq.yd. gravel surfacing, 90.4 cu.yd. concrete in culverts, 614 lb. steel reinforcement, etc., to T. W. Edison, Rogers, $77,895.

★**Illinois**—Dept. Pub. Wks. & Bldgs., Springfield, let contracts building following sections Vandalia-Cairo Highway, Sects. 24A, 25A and 26A, Fayette and Marion Counties, to Frazier-Davis Constr. Co., Arcade Bldg., St. Louis, Mo., $56,000; Sects. 27A and 28A, Marion Co., Sect. 30A, Marion and Washington Counties, Sects. 32A and 33A, Washington Co., to Cameron-Joyce & Co., Keokuk, $94,841; Sect. 29A, Marion Co., to Embankment Co., Joliet, $21,623. Noted July 1.

★**Wisconsin**—State Highway Dept., 1st div. office 5, Court House, La Crosse, let contract improving 7.19 mi. Whitehall-Ettrick Rd., Federal Aid Project 120, Trempealeau Co., to Mason & Metzgar, Blair, $48,640. Noted July 22.

★**Wisconsin**—State Highway Dept., Madison, let contract improving Woodruff-Fifield Rd. Federal Aid Project 165, Vilas Co., to Michaels & Fitzpatrick, Ironwood, Mich., $58,857. Work involves 51,354 cu.yd. earth excav., at $0.60 per cu.yd., 294.5 cu.yd. concrete in culverts, $25, 5,160 cu.yd. top soil surfacing, $1.05, 57.65 acres clearing and grubbing, $150, 2,527 cu.yd. borrow excav., $0.60, etc.

★**Ia., Grundy Center**—Grundy Co. let contract improving various highways, involving 37,700 cu.yd. excav., to Smith & Co., Des Moines; $0.57 per cu.yd.

★**Ia., Dakota**—Humboldt Co. let contract building 1.85 mi. roads, involving 15,933 sq.yd. pavement, to Emerson & Johnson, Humboldt, $3.68 per sq.yd. Noted Mar. 4.

Streets and Roads (Continued)

★**Ia., Hampton**—Franklin Co. let contract grading 8 mi. road, to J. E. Kughn & Son, Iowa, $25,253.

★**Ia., Primghar**—O'Brien Co. let contracts building 5 mi. highway, involving 52,800 sq.yd. rein.-con. pavement, to J. H. Johnson, Royal, $208,032; 8.5 mi., 89,760 sq.yd. rein.-con., to Capital Constr. Co., Des Moines, $385,968; 9 mi., 95,040 sq.yd. rein.-con., to O'Rourke Eng. Co., Des Moines, $403,918; 60,000 lin.ft. tiling, to L. Johnson, Hartley. Noted March 4.

★**Minn., Breckenbridge**—Wilkin Co. let contract grading 10 mi. Federal Aid Project 161-A, State Rd. 2, 24 ft. wide, to M. W. Barnard, Globe Bldg., Minneapolis, $56,683. Noted June 24.

★**Minn., Fairmont**—Martin Co. let contract grading 7 mi. County Job 1906, 24 ft. wide, to W. A. Duffy, Fairmont. About $48,000.

★**Minn., Fairmont**—Martin Co. let contract grading 5 mi. Federal Aid Project 72, 24 ft. wide, to W. H. Ryan, Fairmont. About $30,000.

Minn., Little Falls—City let contract paving 11 blocks 1st St. S. E. from 2nd to 6th Aves., involving 38,000 sq.yd. bitulithic on macadam foundation, to General Contg. Co., 1228 Plymouth Bldg., Minneapolis. About $150,000.

★**Minn., Long Prairie**—Todd Co. let contract grading 17 mi. Federal Aid Project 99, State Rd. 1, 24 ft. wide, to H. Thursdale, Long Prairie. About $51,800. Noted July 8.

★**Minn., Montevideo**—Chippewa Co. let contract graveling 14 mi. Federal Aid Project 128, 24 ft. wide, to Minnesota Rural Express Co., Montevideo. About $37,500.

★**Minn., Rush City**—Chisago Co. let contract for 7 mi. concrete paving and 33 mi. grading on Federal Aid Project 95, State Rds. 5, 2 and 1, to W. S. Harris Co., Minneapolis, and C. Johnson, Sandstone. Total cost $488,000.

★**Minn., Willmar**—Kandiyohi Co. will grade 9 mi. and gravel 18 mi. Job 2004, 24 ft. wide. Work will be done by day labor. About $35,000 and $72,000 respectively.

★**Kan., Ft. Scott**—Bourbon Co. let contracts grading and building concrete culverts on 7 mi. Ft. Scott-Pittsburg Rd., to D. C. Burkirk, Hutchinson, $16,385; paving with bituminous macadam 5,366 ft. Hammond Branch Rd., 10 ft. wide, also 3.64 mi. Kansas City Rd., Federal Aid Project 5B, involving 34,171 sq.yd. bituminous macadam, to Thogsmartin & Gardner, Ft. Scott, both $1.91 per sq.yd. Noted June 24 and July 1.

★**Mo., Carthage**—Jasper Co. let contract building 2.76 mi. Joplin-Carthage Rd. (Carterville Special Rd. Dist.), Federal Aid Project 81, to Carterville Constr. Co., Carterville, $85,466. Work involves 7,833 cu.yd. earth and 1,200 cu.yd. rock excav., at $0.85 and $2.80 per cu.yd. respectively, 700 cu.yd. per 100 ft. overhaul, $0.03, 29,259 sq.yd. 1 course alpin cement concrete pavement, $2.58, 18.74 cu.yd. Class "B" concrete masonry, $24, 1,412 lb. reinforcement for concrete masonry, $0.10. Noted July 15.

★**Tex., Austin**—Travis Co. let contracts improving (1) 3 mi. Austin-Oak Hill Rd., 16 ft. wide, including (a) grading and surfacing with gravel, (b) building concrete drainage structures, (c) topping with ½ in. trap rock surface, (2) grading and surfacing with rock, 3.1 mi. Austin-Upper Georgetown Rd., 16 ft. wide, (3) topping with 1 in. bituminous treatment of limestone rock asphalt and building concrete drainage structures on 3.1 mi. Austin-Upper Georgetown Rd., (Jollyville Branch) from Brown & Root, Taylor, (1a) $13,414; W. E. Dozier, Austin Natl. Bank Bldg., (1b) $9,578, (3) $28,513; Haden & Austin, 727 Kress Bldg., Houston, (1c) $14,159; McMillen & Williamson, c/o L. F. McMillen, Austin (2) $35,173; all including 10% for engineering and contingencies. Noted July 15.

Tex., Center—Shelby Co. received bids grading, surfacing and draining 31.9 mi. Highway 8 from Panola to San Augustine Counties, 16 ft. wide, from Smith Bros., Crockett, $350,972; O. H. Polly and H. F. Bland, Center, $375,000. Work involves 125.56 acres clearing and grubbing, 82,022 cu.yd. earth borrow, 125,131 cu.yd. earth excav., 8,230 lin.ft. timber piling, 15,417 lb. reinforcing steel, 172.9 cu.yd. 1:2:4 and 71.86 cu.yd. 1:3:6 concrete, etc. Materials to be furnished by county, to cost $116,336.

★**Tex., Orange**—Orange Co. let contract grading, paving and building concrete and steel drainage structures on 10.26 mi. Highway 3 between Beaumont and Port Arthur, 16 ft. wide, to Houston Constr. Co., 3102 McKinney St., Houston, $451,503; including 10% for engineering and contingencies. Noted June 3.

★**Tex., Richmond**—Ft. Bend Co. let contract grading and draining 13.01 mi. Highway 36 from Roseberg to Austin Co. line, 24 ft. wide, to M. M. Craven, Bellaire, $70,318; including 10% for engineering and contingencies. Noted July 8.

★**Tex., Van Horn**—Culberson Co. let contracts improving 23.356 mi. Highway 12, 9 ft. wide, also 43.167 mi. Highway 1, 9 ft. wide, to W. E. Hamilton, Mineral Wells, $31,984 and $114,990 respectively. Noted June 24.

★**New Mexico**—State Highway Dept., Capitol Bldg., Santa Fe, let contract grading and draining 32.411 mi. Federal Aid Project 18, between Carlsbad and Lovington, Eddy Co., to La Roe & Burgess, Palestine, Tex., $80,950; grading, surfacing and building structures on 10.859 mi. Federal Aid Project 13-A, between Armijo and Laguna, Valencia Co., to A. P. Atchison, Raton, $3,095; 11.365 mi. Federal Aid Project 24, between Clovis and Portales, Roosevelt Co. and 15.437 mi. Federal Aid Project 25, between Texico and Portales via Clovis, Curry Co., to Atlas Constr. Co., La Veta, Col., $97,184 and $91,252 respectively. Above contracts do not include 10% for engineering and contingencies. Noted June 24.

Utah, Ogden—City received bids July 15, paving various streets in Dist. 132, involving 6,795 sq.yd. asphalt on concrete base, from Wheelwright Contg. Co., Ogden, $38,672; Moran Paving Co., Felt Bldg., Salt Lake City, $42,307.

★**Washington**—State Highway Comn. Olympia, let contract grading, draining and paving with concrete 1.71 mi. Olympic Highway, from Elma east, Grays Harbor Co., to C. E. Philbrick & Co., Raymond, $60,417; 1 mi. Pacific Highway from Silvana north, Snohomish Co., to J. L. Smith, Pioneer Bldg., Seattle, $35,436; clearing, grading, draining and surfacing with gravel 1.24 mi. State Rd. 5, from Randle west, Lewis Co., to Copenhagen Bros. & Co., Portland, $39,980. Noted June 29.

★**Wash., Aberdeen**—City will pave roadway of east city entrance, 18 ft. wide, concrete. About $31,300. Work will be done by day labor.

★**Wash., Seattle**—City let contract grading and filling 4th Ave. S., et al, to Grant Smith Co., Henry Bldg., $225,462. Noted July 22.

★**Wash., Seattle**—City let contract paving and grading 17th Ave., N. W., et al, to S. A. Moceri, Alaska Bldg., concrete, $135,476. Work involves 9,600 cu.yd. subgrade, 10,500 lin.ft. Type "A" armored concrete curb, 8,370 lin.ft. Type "B" integral concrete curb, 20,500 sq.yd. 6 in. concrete and 13,900 sq.yd. 7 in. concrete pavement.

★**Oregon**—State Highway Comn., Portland, let contract surfacing 7.5 mi. Grave Creek-Pleasant Valley Sect. Pacific Highway, Josephine Co., broken stone or gravel, to D. M. Stevenson, 264 East 31st St., Portland, $77,610; 24.2 mi. Bend-Jefferson Co. Line Sect. Dallas-California Highway, involving 53,000 cu.yd. gravel or broken stone, to Wicker, Sharp & Chindahl, Lewis Bldg., Portland, $2.45 per cu.yd.; 5.45 mi. Roseburg-Wilbur Sect. Pacific Highway, Douglas Co., 11,500 cu.yd. gravel or conglomerate, to J. Haakenson, Oakland, $38,525; 1.58 mi. Newberg-Dundee Sect. West Side Highway, Yamhill Co., 3,500 cu.yd. gravel, to E. A. Palmer, Lafayette, $8,645; 4.45 mi. Riverdale Hobsonville Sect. Coast Highway, Tillamook Co., 10,400 cu.yd. gravel, 4.72 mi. Beaver-Hebo Sect. Coast Highway, Tillamook Co., 11,000 cu.yd. gravel, and 3 mi. Moore Cutoff Coast Highway, Tillamook Co., 6,400 cu.yd. gravel, to County Court, Tillamook, $2.30 per cu.yd., $2.80 and $4.40 respectively; grading 0.64 mi. Talent Reservoir Sect. Pacific Highway, Jackson Co., to C. H. Natwick, $8,327; paving 2.32 mi. Cedar Point-Coquille Sect. Coast Highway, Coos Co., to Scandia Shipbuilding Co., $79,574; macadamizing 4.5 mi. Sheridan-Polk Co. Line Sect. McMinnville-Tillamook Highway, to W. N. Trent, McMinnville, $32,016.

★**Que., Montreal**—City let contract paving ¾ mi. Wilson Ave. from Sherbrooke to Monkland Sts. and Du Rosaire Rd. from Boyer to St. Hubert Sts., to Quinlan, Robertson & Janin, 260 St. James St., $38,143 and $6,985 respectively. Noted July 22.

★**Ontario**—Provincial Government, Toronto, let contracts building pavements, culverts, and supplying crushed stone as follows: bituminous macadam pavement on road from St. Catharines to Stoney Creek, to H. L. Symons & Co., 43 Scott St., Toronto; culverts in Burford and Blenheim Twps., to J. A. Vance, 209 Light St., Woodstock; in Whitby Twp., to J. A. McDonald, Whitby; crushing and delivering 4,200 cu.yd. stone, Charlottenburg Twp., to McLean & Stidwell, Cornwall; 6,000 cu.yd. stone, Lancaster Twp., to Chisolm & Wellage, Lancaster. About $70,000.

RAILWAY—DETROIT, MICH.

Bids were received by city for constructing railway, (1) Charlevoix-Buchanan Route, (2) St. Jean, Shoemaker, Montclair Line, (3) Warren Ave. W., Line, (4) miscellaneous materials, from (1A) J. A. Mercier, 216 Hammond Bldg., (1B) Detroit Dept. Pub. Wks., (1C) Lennane & McIlvenna, 1205 Book Bldg.; (2A) J. A. Mercier, (2B) Thomas E. Currie, 20 McGraw Bldg.; (3A) Julius Porath, 74 McGraw Bldg., (3B) Lennane & McIlvenna; (4A) Lorain Steel Co., Lorain, O., (4B) Bethlehem Steel Co., Bethlehem, Pa. The unit bids were as follows:

	A	B	C
(1) Charlevoix—Buchanan Route:			
62,500 cu.yd. excavation	$4 50	$5 70	$5 50
75,000 sq.yd. 8½-in. concrete	3 50	3 50	3 50
59,600 ft. of 6-in. tile	60	55	70
98 vitrified crosses	1 00	1 00	2 00
4,400 cu.yd. ½-in. crushed stone	5 00	4 50	5 35
112 manholes	25 00	30 00	35 00
Extended totals	$605,531	$676,211	$676,977
(2) St. Jean, Shoemaker, Montclair Line:			
21,500 cu.yd. excavation		2 95	$3 25
26,300 sq.yd. 8½-in. concrete		3 00	3 10
21,300 ft. of 6-in. tile		60	28
45 vitrified crosses		1 00	1 00
1,500 cu.yd. of ½-in. crushed stone		5 00	4 80
82 manholes		25 00	30 00
Extended totals		$164,730	$167,080
(3) Warren Ave., West Line:			
10,830 cu.yd. excavation		$2 40	$3 70
13,932 sq.yd. 8½-in. concrete		3 20	3 50
9,100 ft. of 6-in. tile		35	70
765 cu.yd. ½-in. crushed stone		4 00	4 85
30 manholes		40 00	35 00
Extended totals		$78,019	$99,963
(4) Miscellaneous Materials:			
4,150 tons of 91-lb. T-rails		$71 90	$96 13
307,174 lb. tie rods			7 40
¾-in. nuts, 43,080 lb			7 40
577 kegs of track spikes		7 67	9 38
704 pairs of rail splices		4,643	6,426
2,158 lb. of 1-in. bolts		0 0584	075
80 pieces of special work		232,020 00	278,340 00
Extended totals		$553,393	$709,676

Railways

PROPOSED WORK

Pennsylvania—Genl. Electric Co., River Rd., Schenectady, N. Y., plans to build 3,900 ft. standard railroad tracks, also grade 1,077 x 771 ft. tract between tracks of Phila., Baltimore & Washington R.R., Elmwood Ave., East 68th and West 70th Sts., Phila., involving 68,000 cu.yd. excav. and 150,000 cu.yd. filling.

Nebraska—See "Industrial Works" under Omaha.

Wyoming—Union Pacific R.R., 15th and Dodge Sts., Omaha, Neb., plans to build 125 mi. of track between Granger, Wyo. and Gateway, Utah. R. L. Huntley, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Illinois**—Alton & Southern R.R., 21st and Boismenue Sts., East St. Louis, let contract laying tracks, grading, bridging and ballasting on about 4 mi. old electric line between East St. Louis and Belleville, to Mellon Contg. Co., Oliver Bldg., Pittsburgh, Pa. About $500,000. Work involves 300,000 cu.yd. earth fill, 10,000 cu.yd. ballast and 1,500 cu.yd. rein.-con.

★**Utah**—State Rd. Comn., State Capitol, Salt Lake City, will build 3.2 mi. road from Salt Lake Route tracks to point of Mountain Grand Pits. Work will be done by day labor. I. R. Browning, state highway engr.

Excavation and Dredging

PROPOSED WORK

Miss., Cleveland — Dredging — Laban Bayou D. D. Bolivar Co. soon receives bids for 480,000 cu.yd. floating dredgework and building 300,000 cu.yd. lateral ditches. W. W. Boone, Cleveland, engr.

Miss., Cleveland — Dredging — Christmas D.D. Bolivar Co. soon receives bids for 12 mi. floating dredgework, involving 350,000 cu.yd. earth excav.; building 12 mi. lateral ditches, 150,000 cu.yd. earth excav. W. W. Boone, Cleveland, engr.

Ark., Helena—Ditches, etc.—Phillips Co. (Helena) and Desha Co. (Arkansas City) plan to build ditches and levees to reclaim 250 sq.mi. overflowed land. J. L. Harrington, c/o Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, Mo., engr.

BIDS DESIRED

Miss., Summer — Until Aug. 5, by Blue Lake D. D. Comrs. building 11 mi. open ditch, involving 550,000 yd. floating dredgework in Tallahatchie and Sunflower Counties. A. L. Dabney, Randolph Bldg., Memphis, Tenn., engr.

Ill., Edwardsville — Excavation — Until Aug. 5, by Comrs. Cahokio Creek Levee and D. D., straigtening 6 x 6 mi. Cahokio Creek Channel from Carpenter to Edwards, to include 3 beam bridges with concrete abutments. About $115,000. Shepard & Morgan, Edwardsville, engrs.

Wis., Milwaukee—Excavation—Until Aug. 5, by Bd. Industrial Educ., Manufacturers' Home Bldg., excavating for 7 story, 145 x 268 ft. continuation school (2nd unit), brick, rein.-con. and steel, rein.-con. flooring, concrete and pile foundation, on 7th and Prairie Sts. Van Ryn & De Gelleke, Caswell Blk., archts.

Ia., Ft. Dodge—Drainage—Until Aug. 3, by Comrs. Webster Co., building D.D. 316, involving 8,620 ft. 10-22 in. tile, cost $9,480; D. D. 311, 9,400 ft. 8-24 in. tile, $12,415; furnishing labor building D. D. 4, 3,000 ft. 12-18 in. tile. J. L. Parsons, Ft. Dodge, engr.

Ia., Rockwell City—Ditch—Until Aug. 12, by R. B. Dixon aud. Calhoun Co., building Joint D. D. 181, in Calhoun, Sac, Pocahontas and Buena Vista Counties. Branch Sect. 2 includes 51,680 ft. open ditch and involves 1,513,000 cu.yd. excav., Sect. 4, 64,050 ft. open ditch, 506,560 cu.yd. excav. and Sect. 5, 40,905 ft. open ditch, 682,952 cu.yd. excav. About $250,000.

Minn., Waseca—Until Aug. 10, by Comrs. Waseca Co. building County Ditch 16, involving 21,555 lin.ft. 8-28 in. tile, 850 ft. 10-28 in. sewer pipe, 8 surf water inlets, 4 cu.yd. concrete in bulkheads, 2 mi. haul. About $50,000. J. W. Hruska, Waseca, engr.

Mo., Trenton—Ditch—Until Aug. 4, by W. N. Norris, clk. Grundy Co., building 10 mi. drainage ditch.

Ariz., Phoenix—Excavation—Until Aug. 5, by Salt River Valley Water Users Assn., Water Users Bldg., drilling ten to twenty 10 or 12 in. diameter wells. L. Kemperman, purch. agt.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Algona**—Drainage—Kossuth Co. let contract for tile work in Sub. D. D. 9 of D. D. 4 to Humboldt Gravel & Tile Co., Humboldt. Noted May 20.

★**Ia., Carroll**—Carroll Co. let contracts for labor building D. D. 87 to W. O. Schuyler, Scranton, $59,045; tile to Cement Products Co., Spencer, $127,277. Noted March 25.

★**Ia., Emmetsburg**—Drain—W. T. Krieger, aud. Palo Alto Co., let contract improving D.D. 1, involving 670,000 cu.yd. excav., to E. G. Sternberg, 53 West Jackson Blvd., Chicago, $0.14 per cu.yd. Noted July 8.

★**Ia., Ft. Dodge**—Drainage—Calhoun Co. let contract furnishing labor building D. D. 16-247, Webster and Calhoun Counties, to Rude & Weld, Pomeroy, $16,939; tile, to McHose Sand & Tile Co., Boone, $30,484.

★**Ia., Harlan**—Shelby Co. let contract building Nisha Botna Ditch 11 and Elk Creek laterals, to F. M. Crane Co., 1124-6 City Natl. Bank, Omaha, Neb. About $89,000.

★**Minn., Willmar**—Ditch—Kandiyohi Co. let following contracts for building County Ditch 48: digging trenches, laying tile and backfilling 44,477 ft. 6-30 in. tile, to Lee & Nodland, Starbuck, $8,914; delivering 44,477 ft. cement tile, to Minnesota Pipe & Tile Co., 820 West 6th St., Mankato, $17,170; hauling above tile, to W. Campbell and F. Euling, R. F. D. 4, Raymond, $1,820.

★**Minn., Willmar**—Kandiyohi Co. let contract building County Ditch 47, involving 169,512 cu.yd. earth excav., 172 stations open work, to Mulgrew & Sons Co., Dubuque, Ia., $0.16¼ per cu.yd.

★**Ont., Ottawa** — Dredging — Dominion Government let contract dredging harbors at Kingston, Coburg and Port Hope, Frontenac Co., to Frontenac Dredging Co., Kingston. About $150,000.

Industrial Works

PROPOSED WORK

Mass., Holyoke—Elm Garage Co., 243 Elm St., plans to build 2 story, rein.-con. garage, on Elm and Cabot Sts. About $65,000. Architect not selected.

Mass., West Springfield (Springfield P. O.)—Springfield Automatic Screw Machine Corp., Springfield, plans to build concrete and steel plant on 4 acre site, here. About $250,000. I. P. McGregor, treas. Architect not selected.

Mass., Whitinsville—J. D. Leland, archt., 185 Devonshire St., Boston, soon lets contract building 5 story, 90 x 400 ft., brick and rein.-con. addition to plant, rein.-con. flooring, concrete foundation, for Whitin Machine Wks. About $600,000. Noted Jan. 15.

R. I., East Greenwich—Greenwich Mills, Division St., plans to build 4 story, 80 x 90 ft., brick and mill construction addition to plant. About $50,000. Private plans.

R. I., Olneyville (Providence P. O.)—P. Laudati, 87 Weybosset St., Providence, having plans prepared by C. E. Burlinghame, archt., 76 Dorrance St., Providence, for rein.-con. warehouse, on Grove St., here. About $75,000.

Conn., Bridgeport—A. Aldo, 1699 Madison Ave., having plans prepared by F. A. Cooper, archt., 1024 Main St., for 1 story, 100 x 110 ft., brick and steel garage, rein.-con. flooring, stone foundation, on North Ave. About $50,000.

Conn., Devon (Milford P. O.)—Milford Shipbuilding Co. plans to build shipyard along Housatonic River, for building coast vessels. Engineer not selected.

Conn., Hartford—Hartford Mattress Co., Kilbourn St., having plans prepared by B. A. Sellew, archt., 223 Asylum St., for 3 story, 43 x 90 ft., brick, concrete and steel plant, rein.-con. flooring, concrete foundation. About $50,000.

Conn., Norwalk—City plans to build 2 story electrical plant, brick, concrete and steel, rein.-con. flooring, concrete foundation. About $50,000. Westcott & Mapes, Inc., 207 Orange St., New Haven, engrs.

Conn., Suffield—W. E. Dibble, archt., 317 Main St., Springfield, soon lets contract building 1 and 2 story, brick and concrete plant, concrete foundation, for Fogds-Wawbeek Springs, Inc., c/o Architect. About $50,000. Noted June 17.

N. J., Newark—Williams Baking Co., 714 South 10th St., having plans prepared by J. T. Simpson, archt., Essex Bldg., for 2 story, 50 x 125 ft., brick and timber addition to bakery, also new stable. About $100,000.

Pa., Altoona—Altoona Merchandise Co., 11th Ave. and 10th St., plans to build 3 story, 120 x 150 ft., brick and steel warehouse. About $200,000. G. W. Shaffer, pres. Architect not selected.

Pa., Johnstown—Peris Products Co. plans to build 2 story, 30 x 47 x 167 ft., brick and steel plant, on Sheridan Ave. About $150,000. R. K. McManamy, Ft. Stanwix Hotel, fiscal agt. Architect not selected.

Pa., Phila.—E. B. Steinmetz Co., Inc., Huntingdon and Hancock Sts., soon lets contract building 2 story, 48 x 105 ft. storm factory, brick, on Sedgely St. Peucker & Wunder, 310 Chestnut St., archts. and engrs.

Pa., Scranton—F. Nelson, archt., Connell Bldg., preparing plans for 3 story, 50 x 100 ft. handkerchief factory, brick and timber, rock foundation. About $100,000. Owners name withheld.

Md., Baltimore—Natl. Bitulithic Enamel & Paint Co., Lawrence and Woodall Sts., receives bids about Aug. 9, building 3 story, 100 x 150 ft., rein.-con. and brick addition to plant, rein.-con. flooring, concrete foundation. About $100,000. Private plans.

Va., Richmond—Standard Paper Mfg. Co., Hull and Canal Sts., had preliminary plans prepared by J. H. Wallace & Co., 5 Beekman St., New York City, for 2, 3 and 4 story, 150 x 230 ft. factory, at south end Mayo Bridge. About $200,000.

La., New Orleans—Union Paper Products Co., 109 Tchoupitoulas St., soon lets contract building 1 story, concrete and steel factory, on Colapessa St., to have 50,000 sq.ft. floor space. About $125,000. E. Weil, Whitney Central Bank Bldg., archt.

La., Shrewsbury (New Orleans P. O.)—Rex Motor Mfg. Co., 628 Gravier St., New Orleans, having plans prepared by R. S. Soule, archt., 429 Carondelet St., New Orleans, for 1 story brick factory, concrete flooring, to cover 7 or 8 acres, here.

O., Akron—Akron Gear & Eng. Co., South and High Sts., purchased site and plans to build new factory, on East Market St. and Martha Ave. J. A. Palmer, pres.

O., Canton—Timken Roller Bearing Co., Dueber Ave., plans to build 1½ story addition to factory, on 18th St., S. W. About $75,000.

O., Cincinnati—Nash—Cincinnati Motors Co., 804 Sycamore St., plans to build 2 story brick and concrete garage, on Reading Rd. and Morgan St. About $95,000.

O., Cleveland—U. S. Leather Co., c/o E. B. Cassett, East 13th St. and Euclid Ave., plans to build 1 story, 100 x 300 ft. rein.-con., steel and brick factory, rein.-con. flooring, concrete foundation, on Broadview Rd. About $100,000. Architect not selected.

O., Cleveland—Walter Ice Co., c/o A. O. Bishop & Co., archt. and engr., 427 Guardian Bldg., soon lets contract building 1 story, 45 x 142 ft., brick and steel plant, brick foundation, on West 25th St. About $100,000. Noted July 22.

O., Defiance—Highway Motor Co. soon lets contract building 3 story, 100 x 160 ft. brick addition to plant. About $80,000. Mills, Rhines & Nordhoff, 1234 Ohio Bldg., Toledo, archts. and engrs.

Mich., Detroit—Genl. Forging Corp., c/o J. D. Edwards, 54 Lafayette Blvd., plans to build drop forge plant, 1st unit to be 2 story, 65 x 210 ft., rein.-con., brick and steel shop, rein.-con. flooring, concrete foundation. Private plans.

Mich., Detroit — Michigan Creamery Co., c/o S. Raboniwitch, Ford Bldg., having preliminary plans prepared by T. A. Hyland, archt., 307 Moffat Bldg., for 7 story, rein.-con., brick and steel plant, rein.-con. flooring, concrete foundation, on Grand River Ave., to include power plant, refrigeration system, etc.

Mich., New Buffalo—Pere Marquette R.R. Union Depot Bldg., plans to build 1 story, 16 stall engine terminal house, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. J. Tuthill, Union Depot Bldg., engr.

Mich., St. Johns—See "Buildings"

Mich., Traverse City—City plans to build steam electric power plant. About $75,000.

Ill., Chicago—Standard Electric Mfg. Co., 216 North Clinton St., plans to build 2 or 5 story, 125 x 150 ft. factory, on Wrightwood Ave. About $250,000. Architect not selected.

Industrial Works (Continued)

Wis., Milwaukee—R. Williamson, archt., 405 Bway., opens bids about July 30, building 1 story, 80 x 150 ft., steel and concrete garage, concrete flooring and foundation, on Grand Ave., for Packard Motor Car Co., 3501 Grand Ave. Noted June 3.

Wis., Milwaukee—Ramstack & Son., 1826 Brown St., plan to build 2 story, 60 x 100 ft., brick and mill construction addition to factory, concrete flooring and foundation, on Brown St. Private plans.

Wis., Sheboygan—Tomah Rubber Wks., 176 16th St., Milwaukee, plans to build 2 story, 80 x 160 ft., rein.-con. factory, rein.-con. flooring, concrete foundation, here. Architect and engineer not selected.

Ia., Des Moines—Mid-West Steel Co. plans to build 2 story, rein.-con. and steel plant. About $200,000. J. Van Lew, c/o Des Moines Steel Co., 4th St. south of Tuttle St., pres. Engineer's name withheld.

Ia., Des Moines—Woods Co., East 20th and Washington Sts., having preliminary plans prepared for 3 story, brick, rein.-con. and steel plant. About $200,000. Engineer's name withheld.

Minn., Minneapolis—Western Chemical Co., Hutchison, having plans prepared by Downs & Eads, archts., 803 Phoenix Bldg., for 3-5 story patent medicine factory, rein.-con. and brick, on Malcolm and University Aves. Cost between $125,000 and $150,000.

Kan., Atchison—Harwi Hardware Co., 9th and Commercial Sts., soon receives bids building 5 story, 75 x 150 ft., brick, rein.-con. and steel warehouse, rein.-con. flooring, brick foundation. About $125,000. W. H. Sayler & Co., Mutual Bldg., Kansas City, Mo., archts. Noted July 8.

Neb., Omaha—Corn Products Co. plans to build large manufacturing plant, 15 mi. railroad tracks and sewage facilities to carry off 10,000,000 gal. waste water every 24 hours.

Mo., Kansas City—Irving Pitt Publishing Co., 411 East 8th St., having plans prepared by Smith, Rea & Lovitt, archts., 602 Finance Bldg., for 6 story, 130 x 130 ft. publishing house, rein.-con and brick, rein.-con. flooring, on Admiral and Locust Sts.

Mo., St. Louis—City having plans prepared for electric lighting plant and system. About $1,000,000.

Mo., St. Louis — Pierre Investment Co., c/o R. S. Price, archt. and engr., Arcade Bldg., plans to build 1 story, 175 x 200 ft., stucco, steel and brick garage. About $150,000.

Okla., Erick—See "Sewers."

N. B., St. John—T. McAvity & Sons plan to build warehouse in Queen Ward. About $100,000.

N. B., St. Stephen — Mann Axle & Tool Co. plans to build 1 story, 50 x 360 ft. rein.-con. and brick factory. C. E. Huestis, genl. mgr.

Ont., Sudbury—Canada Creosoting Co. plans to build 1 and 2 story, concrete and timber plant, rock and concrete foundation. About $50,000. Private plans.

BIDS DESIRED

Pa., Phila.—L. R. Rothchild, archt. and engr., 1225 Sansom St., receiving bids building 2 and 3 story, 25 x 135 ft., brick factory, on 8th and Locust Sts., for W. Goldstein, 1001 Filbert St.

Ky., Louisville—Kentucky Tire and Rubber Assn., 502 Realty Bldg., receiving bids building 60 x 280 ft. factory. About $400,000. H. J. Huff, Louisville, archt.

O., Cleveland Heights—Until Aug. 11, by School Bd., for excavations, foundations, structural steel, overhead coal storage bin, piping, chimney and mechanical equipment for 50 x 67 ft. heating plant for Pub. School, on Lee Rd. About $100,000. E. K. Bryan, clk. L. A. Quayle, 1455 West 98th St., Cleveland, engr.

Wis., Milwaukee — A. C. Clas, archt., Colby-Abbott Bldg., receiving bids building 2 story, 50 x 150 ft., concrete and brick addition to plant, rein.-con. flooring, on 4th St., for Kletzsch Realty Co., 3rd and Cedar Sts.

Ont., Brantford—Until Aug. 8, by Cockshut Plow Co. constructing 70 x 200 ft. foundry and forging building. About $150,000. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Boston & Maine R.R., North Sta., let contract building 2 story, 72 x 115 ft., brick and steel freight station, concrete foundation, on Warren Ave., to Tredennick Co., 10 High St. About $50,000. Noted July 22.

★**Mass., Cambridge**—Revere Sugar Refinery, 15 Broad St., Boston, let contract building 1 story, 90 x 200 ft., rein.-con. shop, rein.-con. flooring, concrete foundation, on 9th St., here, to Walsh Bros., 150 Hampshire St. About $100,000. Noted July 8.

★**Mass., Holyoke**—K. R. Charlton, Inc., 118 Race St., let contract building 1 story, 110 x 110 ft. brick, concrete and steel garage, rein.-con. flooring, concrete foundation, on Suffolk and Elm Sts., to P. J. Kennedy & Co., Inc., 464 Maple St. About $60,000.

★**Mass., Holyoke**—Farr Alpaca Co., Jackson St., let contract constructing 5 story, 60 x 205 ft., brick and steel warehouse, on Cabot St. and 4 story, 75 x 156 ft., brick and rein.-con. inspection building, on Jackson St., to S. M. Green Co., 293 Bridge St., Springfield.

★**Mass., Holyoke** — Hampden Glazed Paper & Card Co., Riverside, let contract building 4 story, 92 x 291 ft., brick and steel factory, on Water St., to Casper Ranger Constr. Co., 201 Devonshire St., Boston. About $165,000.

★**Mass., Holyoke** — Magna Automobile Co., 2 Division St., let contract building 2 story, 90 x 100 ft., brick, concrete and steel garage, rein.-con. flooring, concrete foundation, on Northampton St., to Casper Ranger Constr. Co., 293 Bridge St. About $75,000. Noted Jan. 15.

★**Mass., New Bedford**—J. C. Rhodes & Co., Inc., 123 Front St., let contract building 4 story, 70 x 200 ft., rein.-con. and brick addition to factory, rein.-con flooring, concrete foundation, on Front and 4th Sts., to J. W. Bishop Co., 411 Times Bldg. About $200,000. Noted July 22.

★**Mass., New Bedford**—Sharp Mfg. Co., 77 Franklin St., Boston, let contract building 4 story, 70 x 121 ft., brick storehouse, rein.-con. flooring, concrete foundation, on Hemlock St., here, to J. J. Prindiville Co., South Framingham. About $200,000.

★**Mass., Watertown**—Lockwood Greene & Co., engrs. and archts., 60 Federal St., Boston., let contract to H. Nawn Constr. Co., 82 Savin St., Roxbury, building 1 story, 200 x 230 ft., brick and mill construction addition to plant, concrete flooring and foundation, here, for Walker & Pratt Mfg. Co., 31 Union St., Boston. About $200,000. Noted July 22.

★**Conn., Cedar Hill** (New Haven P. O.)—New York, New Haven & Hartford R.R., Meadow St., New Haven, will remodel present freight yards here to include machine shops, blacksmith shops, office, etc. About $150,000. Work will be done by day labor.

★**Conn., Waterbury**—M. J. Daly & Sons, 543 Bank St., let contract building 1 and 3 story, brick and mill construction plant, rein.-con. flooring, concrete foundation, to G. S. Chatfield Co., 138 Division St. About $85,000. Noted July 1.

★**Conn., Waterbury**—E. J. Manville Machine Co., 574 East Main St., let contract building 2 story, 50 x 200 ft., brick and mill construction addition to plant, concrete foundation, to Torrington Bldg. Co., 197 Water St., Torrington. About $65,000. Noted July 1.

★**Conn., Waterville** (Waterbury P. O.)—Berbecker & Rowland Mfg. Co., Main St., let contract building 3 story, 40 x 180 ft., brick and mill construction factory, concrete foundation, to Torrington Bldg. Co., 197 Water St., Torrington. About $100,000.

★**N. J., Monmouth Jct.** — Alcoholic Products Corp. let contract constructing addition to plant, to include two 1 story, rein.-con. and steel buildings, rein.-con. flooring, concrete foundation, to Barney-Ahlers, 110 West 40th St., New York City. About $50,000.

★**N. J., Newark**—Osborn Co. (branch of Amer. Color Type Co.), 759 Summer St., let contract building 1 story, 43 x 75 ft. power house, brick and concrete, to S. Marshall, 326 Devon St., Arlington. About $50,000.

★**N. J., Trenton**—Acme Rubber Mfg. Co., East State St., let contract building 1 story, 90 x 300 ft., brick and steel addition to plant, to N. A. K. Bugbee Co., 206 East Hanover St. About $60,000.

★**N. J., Trenton**—Neidt-Ertel Motor Co., 354 South Broad St., let contract building 1 story, 60 x 181 ft. garage and machine shop, brick and steel, to J. H. Morris, Broad St. Bank. About $50,000.

★**Pa., Carbondale**—Hendrick Mfg. Co., 52 Dundaff St., let contract building 2 story, rein.-con. and steel shop, rein.-con. flooring, concrete foundation, to Turner Constr. Co., 244 Madison Ave., New York City. About $100,000.

★**Pa., Phila.** — Electric Storage Battery Co., Allegheny and 19th Sts., let contract constructing forming room, pig lead manufacturing, jars and castings, buildings and separators, all 1 story, concrete and steel, on Rising Sun Lane and Adams Rd., to W. Steele & Sons., 16th and Arch Sts.

★**Md., Baltimore**—E. H. Koester, 618 West Lexington St., let contract building 4 story, 20 x 80 ft., rein.-con. and brick addition to bakery, concrete foundation, to A. Kratz, 4185 Carrollton Ave. About $150,000.

★**Md., Baltimore**—McCawley & Co., 400 Exch. Pl., let contract building 4 story, 175 x 190 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on North Ave. and Wolfe St., to West Constr. Co., 907 Amer. Bldg. About $350,000. Noted June 24.

★**Md., Baltimore**—Miller Safe Co., Fremont Ave. and Briscoe St., let contract building 1 and 2 story, 123 x 400 ft., rein.-con. and brick factory, concrete foundation, on Wilkens Ave. and Katherine St., to H. D. Watts Co., 502 Garrett Bldg. About $1,000,000. Noted July 8.

★**Tenn., Knoxville**—Holsten Mfg. Co. let contract building rein.-con. factory, to Aberthaw Constr. Co., 27 School St., Boston. About $250,000.

★**O., Cleveland**—Bd. Educ., East 6th St. and Rockwell Ave., let contract building 1 story, 30 x 66 ft. heating plant, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on East 92nd St. and Parkgate Ave., to Drummond-Miller Co., 4500 Euclid Ave. About $100,000.

★**O., Cleveland**—Jordan Motor Co., 1052 East 152nd St., let contract building 2 story, rein.-con., steel and brick plant, rein.-con. flooring, concrete foundation, at 1070 East 152nd St., to Hunkin-Conkey Constr. Co., Century Bldg. About $100,000.

★**O., Cleveland** — J. Laronge Co., c/o J. F. Dickman, 214 Williamson Bldg., let contract building 1 story, 50 x 120 ft., steel and brick garage, rein.-con. flooring, brick foundation, on East 16th St. and St. Clair Ave., to R. E. Davis, 10809 Morrison Ave. About $75,000. Noted July 22.

★**O., Columbus**—Jeffrey Mfg. Co., North 4th St., let contract building 1 story, 215 x 277 ft., steel and concrete factory, to include six 15-50 ton cranes, to R. H. Evans & Co., Columbus Savings & Trust Bldg. About $500,000.

★**Ind., Kokomo**—Haynes Automobile Co., 1108 South Main St., let contract building 1 and 2 story, 75 x 900 ft. body plant, brick and steel, to M. J. Hoffman Constr. Co., Fletcher Trust Bldg., Indianapolis. About $250,000.

★**Ill., Chicago**—Chicago Jct. Ry., 38 South Dearborn St., let contract building compressor room and addition to boiler room, also installing two 150 hp. high pressure boilers, air compressor, etc., to E. W. Sproul Co., 2001 West 39th St. About $80,000.

★**Ill., Chicago**—Enterprise Paint Mfg. Co., 854 West Van Buren St., let masonry and carpentry contract for altering and building 5 story, 44 x 60 ft., mill construction addition to factory, on Van Buren and Peoria Sts., to O. W. Rosenthal Co., 84 East Jackson St. About $50,000.

★**Ill., Chicago**—E. Katzinger Co., 12 North Peoria St., let contract building 7 story, 100 x 120 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on Washington and Sangamon Sts., to J. W. Snyder Co., 122 South Michigan St. About $150,000. Noted June 29.

★**Wis., Milwaukee** — Scott & Mayer, archts., Colby-Abbott Bldg., let contract to Amer. Contg. Co., 198 Milwaukee St., building 2 story, 60 x 112 ft. and 70 x 106 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on Lake St., for Pitcairn Varnish Co., 213 Lake St. About $180,000.

★**Wis., Racine**—J. I. Case Threshing Machine Co. State St., let contract building 1 story, 200 x 420 ft., brick and steel warehouse, concrete flooring and foundation, to Nelson & Co., Robinson Blk.

★**Ia., Dubuque**—Adams Co. will build 3 story, rein.-con. foundry. About $150,000. Work will be done by day labor.

★**Ia., Newton**—Newton Fdry. Co. let contract building 2 story, 106 x 300 ft., brick, rein.-con. and steel foundry, to A. H. Newman Co., 517 Hubbell Bldg., Des Moines. About $100,000.

Industrial Works (Continued)

★**Minn., Minneapolis**—Hennepin Atomized Fuel Co., 520 Security Bldg., let contract building 1 and 2 story, 100 x 150 ft. fuel crushing plant, corrugated metal construction, on Bway. and Johnson St. N. E., to Fegles Constr. Co., 706 1st Ave. N. About $150,000; on time-material basis. Noted Mar. 25.

★**Minn., St. Paul**—House of Good Shepherd, Blair and Virginia Sts., let contract constructing 3 story, 42 x 122 ft. laundry and domestic science building with 1 story, 40 x 56 ft. wing, brick and steel, on Blair and Victoria Sts., to Foley Bros., 209 Gilfillan Blk. Cost to exceed $100,000.

★**N. D., Fargo** — Advance Rumeley Co., 508-10 Northern Pacific Ave., let contract building 2 story, 100 x 190 ft., rein.-con. warehouse, rein.-con. flooring, concrete foundation, to Albinson Constr. Co., Minneapolis, Minn. About $185,000.

★**Wash., Seattle**—Fisher Flouring Mills, Harbor Island, let contract building 2 story, 100 x 400 ft. heavy timbered warehouse and 100 x 100 ft. dock, at 3305 Chelan Ave., here, to Grant Smith Co., Henry Bldg. About $250,000.

★**Ont., Hamilton**—Firestone Tire & Rubber Co., Sherman Ave., let general contract building 4 story, rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on Sherman Ave., to Piggott Healey Constr. Co., 36 James St. S. About $500,000. Noted Mar. 4.

★**Ont., Listowel**—Perfect Knit Mills will build 3 story, 80 x 280 ft. rein.-con. extension to factory. About $85,000. Work will be done by day labor.

Buildings

PROPOSED WORK

Mass., Boston—Bank and Office—T. M. James, archt., 3 Park St., soon receives bids building 6 story, 45 x 75 ft., brick and concrete, rein.-con. flooring, concrete foundation, on Cornhill St., for Workingmen's Co-operative Bank, 101 Tremont St. About $150,000. Noted June 24.

Mass., Boston—Mercantile—Haven & Crosby, archts. and engrs., 40 Court St., soon let contract altering brick and steel mercantile building on North St., here, for J. K. Whiting, Milk St., Charlestown.

Mass., Easthampton — Housing — West Boylston Mfg. Co., Pleasant St., plans to build brick and frame houses for workmen, on Everett St. About $125,000. Private plans.

Mass., Greenfield—School—Trinity Roman Catholic Society plans to build brick and steel, on Federal and Beacon Sts. About $100,000. M. J. Carroll, pastor. Architect not selected.

Mass., Haverhill—School—Bd. Educ. rejected bids building 3 story, 40 x 130 ft., brick and concrete addition to Tilton Grammar School, on Grove St. About $100,000. Project postponed. C. D. White, 191 Merrimac St., archt. Noted July 22.

Mass., Jamaica Plain (Boston P. O.)—Theatre—G. Green, 37 Tremont St., Boston, soon lets contract building 1 story, brick and steel, rein.-con. flooring, concrete foundation, on Hyde Sq., here. About $150,000. W. Dykeman, 120 Tremont St., Boston, archt. Noted July 22.

Mass., Spencer—Church—First Congregational Church plans to build 1 story, brick. About $150,000. R. G. Armstrong, pastor. Architect not selected.

Mass., Swampscott (Lynn P. O.)—Clubhouse—Swampscott Masonic Club having plans prepared by Peare, Quiner, Nevin & Chickering, archts., 6 Beacon St., Boston, for clubhouse, on Humphrey St. About $100,000.

R. I., Providence—Store and Offices—F. W. Woolworth Co., Woolworth Bldg., New York City, having plans prepared by A. H. Bowditch, archt, 44 Bromfield St., Boston, for 5 story, brick, concrete and steel, on Westminster and Dorrance Sts. here.

Conn., Bridgeport—Club—Davis & Dane, archts., 1024 Main St., soon let contract building 4 story, 55 x 60 ft., brick, concrete and steel addition, wood flooring, concrete foundation, on State St., for B. P. O. E., 360 State St. About $100,000. Noted July 8.

Conn., New Haven — Dormitory — Yale University soon lets contract building 4 story brick, concrete and steel, rein.-con. flooring, concrete foundation. About $400,000. W. A. Delano, 126 East 38th St., New York City, archt. Noted April 1.

Conn., Simsbury—Church — Church of Immaculate Conception, Tariffville, plans to build 1 story, on Hop Meadow St., here. About $100,000. J. Q. Dolan, pastor. Architect not named.

Conn., Thompsonville — School — Thompsonville School Dist. having plans prepared by I. A. Allen, Jr., Inc., archt., 904 Main St., Hartford, for 2 story, 8 room, brick and steel, on North Main St. About $125,000.

N. Y., Niagara Falls—School—City voted $3,260,500 bonds to build 5 new schools.

N. J., Boonton—School—Bd. Educ. plans to build 2 story, brick and terra cotta, on Lathrop Ave. About $200,000. W. Potter, 22 East 17th St., New York City, archt.

N. J., Glassboro—Normal School—State Bd. Educ., Trenton, having plans prepared for 3 story, 121 x 300 ft., here, to include power plant. About $422,000. F. H. Bent, 142 West State St., state archt.

N. J., Roselle Park (Elizabeth P. O.)—School—Bd. Educ. rejected bids July 20, building 1 and 2 story, 77 x 118 ft., concrete and brick, in Abiene Park. Cost to exceed $100,000. J. N. Pierson & Sons, 175 Smith St., Perth Amboy, archts., Runyon & Carey, 812 Broad St., Newark, engrs. Work will be readvertised. Noted July 1.

Pa., Bethlehem — Hotel — Chamber of Commerce having plans prepared by V. T. Ritter, archt., North Amer. Bldg., Phila., for 10 story, 116 x 120 ft., brick and steel. Cost to exceed $500,000.

Pa., Collegeville—Library—Ursinus College having preliminary plans prepared by F. R. Watson, archt., 1211 Walnut St., Phila., for 2 story, 85 x 105 ft., stone. Cost to exceed $100,000.

Pa., Ebensburg — Courthouse — Comrs. Cambria Co. having plans prepared by J. R. Gordon, archt., 507 5th Ave., New York City, and soon receive bids building 1 story, 100 x 150 ft. addition to courthouse involving removal of tower and wooden roof of old portion and constructing dome and finished front. About $400,000. H. T. Jones, controller.

Pa., Elmhurst—Orphanage—Greek Catholic Society of America having plans prepared by Morris & MacHale, archts., Burr Bldg., Scranton, for 3 story, 110 x 200 ft., brick and steel, rein.-con. flooring, rock foundation. About $350,000.

Pa., Elysburg—High School—Bd. Educ. having plans prepared by Richter-Lee, archts., 32 South 17th St., Phila., for 2 story, 60 x 80 ft., brick and stone. Cost to exceed $100,000.

Pa., Phila.—Clubhouse — Colonial Dames of America, 1525 Locust St., having plans prepared by V. T. Ritter, archt., North Amer. Bldg., for 3 story, 40 x 80 ft., concrete and brick, on 16th and Latimer Sts. About $100,000.

Pa., Pittsburgh—Office—H. Du Puy c/o F. L. Merrick, archt., Empire Bldg., having plans prepared for 14 additional stories to present building, also 26 story, 50 x 115 ft. addition, brick and steel, rein.-con. flooring, on Liberty Ave. and 5th St. About $1,000,000.

Pa., Shamokin—Bank, etc.—Polish Amer. Trust Co., c/o Richter-Lee, archts., 32 South 17th St., Phila., having plans prepared for 3 story, 55 x 65 ft. brick and stone. About $100,000.

Pa., Sunbury—Bank and Office—Sunbury Trust & Safe Deposit Co., c/o V. T. Ritter, archt., North Amer. Bldg., Phila., having plans prepared for 6 story, 60 x 120 ft., brick and stone. About $500,000.

Pa., Sunbury—Hospital—Central Pennsylvania Odd Fellows Assn. plans to improve and build 2 story, 100 x 200 ft. addition, brick, near here. About $100,000. H. I. Romig, Beaver Springs, secy. Architect not selected.

Pa., Wilkes-Barre—Church—Greek Catholic Church plans to build 2 story, 40 x 80 ft., brick, stone and marble, rock foundation, on North Main St. About $100,000. Architect not selected.

Pa., Williamsport — Theatre — Majestic Theatre Co. plans to build 2 story, 80 x 120 ft., on Pine and Laurel Sts. G. H. Buble, mgr. Architect not selected.

Md., Baltimore—Church—Christ Protestant Episcopal Church, c/o S. A. Huston, rector, 16 East Biddle St., having plans prepared by H. B. Upjohn, archt., 456 4th Ave., New York City, for stone addition, concrete foundation, on St. Paul and Chase Sts. About $100,000. Noted July 8.

WATERWORKS EXTENSIONS—MADILL, OKLA.

Bids were received by city (lowest 3) for constructing extensions to waterworks, from (A) T. C. Brooks & Sons, Jackson, Mich., (awarded contract); (B) Woodard & Gowland Constr. Co., Ponca City; (C) J. S. Terry, Poteau, Okla. The unit bids were as follows:

	A	B	C
Trenching and Backfilling 4-in. C.-I. Pipe:			
3,000 lin.ft. 5-meter lengths lead and jute joints	$0 3[illegible]	$0 32	$0 4[illegible]
3,000 lin.ft. 12-ft. lengths lead and jute joints	37	34	4[illegible]
3,000 lin.ft. 5-meter lengths metalium joints	35	30	47
3,000 lin.ft. 12-ft. lengths metalium joints	35	32	4[illegible]
Trenching and Backfilling 6-in. C.-I. Pipe:			
1,160 lin.ft. 5-M. lengths lead and jute joints	40	34	[illegible]
1,160 lin.ft. 12-ft. lengths lead and jute joints	41	36	[illegible]
1,160 lin.ft. 5-M. length metalium joints	38	32	4[illegible]
1,160 lin.ft. 12-ft. lengths metalium joints	38	34	[illegible]
Trenching and Backfilling 8-in. C.-I. Pipe:			
2,630 lin.ft. 5-M. lengths lead and jute joints		38	[illegible]
2,630 lin.ft. 12-ft. lengths lead and jute joints	45	40	[illegible]
2,630 lin.ft. 5-M. lengths metalium joints	42	36	[illegible]
2,630 lin.ft. 12-ft. lengths metalium joints	42	38	[illegible]
Trenching and Backfilling 10-in. C.-I. Pipe:			
60,650 lin.ft. 5-M. and 16-ft. lengths, lead and jute joints	50	50	[illegible]
60,650 lin.ft. 12-ft. lengths lead and jute joints	51	54	[illegible]
60,650 lin.ft. 5-M. and 16-ft. lengths, metalium joints	48	48	[illegible]
60,650 lin.ft. 12-ft. lengths metalium joints	49	52	[illegible]
204 lin.ft. laying 10-in. flex. c.-i. pipe lead and jute joints	10 00	2 50	2 [illegible]
204 lin.ft. laying 10-in. flex. c.-i. pipe metalium joints		2 25	2 [illegible]
2,400 lin.ft. taking up present 2-in. water pipe	10	30	[illegible]
1,062 lin.ft. taking up present 4-in. water pipe	15	50	[illegible]
2,862 lin.ft. taking up present 6-in. water pipe	20	54	[illegible]
10 taking up present fire hydrants	5 00	15 00	7 [illegible]
1 taking up 4-in. universal gate valves	1 00	2 50	7 [illegible]
2 taking up 6-in. universal gate valves	1 00	3 00	7 [illegible]
1,050 lin.ft. trenching, backfilling 4-in. universal pipe	35	30	[illegible]
2,874 lin.ft. trenching, backfilling 6-in. universal pipe	38	12 50	[illegible]
9 setting 6-in. steamer hydrants	12 00	15 00	7 50
11 setting 4-in. hydrants	10 00	34	7 50
1 setting 4-in. universal gate valves	2 00	2 50	5 00
2 setting 6-in. universal gate valves	3 00	3 00	7 50
12 setting 4-in. hub end gate valves	2 00	2 50	7 50
4 setting 6-in. hub end gate valves	3 00	3 00	7 50
4 setting 8-in. hub end gate valves	5 00	3 50	10 00
13 setting 10-in. hub end gate valves	10 00	3 75	12 50
2 4-in. wet connections	20 00	14 00	15 00
4 6-in. wet connections	25 00	15 00	20 00
2 8-in. wet connections	30 00	17 00	25 00
2 10-in. wet connections	35 00	20 00	35 00
800 cu.yd. loose rock excavation in trenches	3 00	3 50	3 00
2,500 cu.yd. solid rock excavation in trenches	5 00	6 00	5 00
5 placing ¾-in. air valves and boxes	5 00	3 00	7 50
Extended totals, 12 ft. lead and jute joints	$53,833	$58,360	$63,991
Extended totals, 12 ft. metalium joints	$52,445	$56,960	$62,092

Buildings (Continued)

Md., Baltimore — Polytechnic Institute — City having plans prepared by C. M. Anderson, archt., 324 North Charles St., for 3 story, 75 x 200 ft., concrete and brick addition, concrete foundation, on Calvert St. and North Ave. About $100,000.

Md., Baltimore—School—City, c/o J. F. Crowther, bldg. inspector, City Hall, receives bids about Aug. 15, building 3-story, 70 x 271 ft. concrete, brick and steel, concrete foundation, on Fort Ave. and Latrobe Park. About $500,000. O. G. Simonson, Maryland Casualty Tower, archt.

W. Va., Charleston—Administration—City having plans prepared by J. R. Warne, archt., Masonic Temple, for administration building, on Virginia St. About $500,000. B. H. Hill, city mgr.

W. Va., New Cumberland—Courthouse—Hancock Co. voted $100,000 bonds to build new 2 story courthouse on Square. Noted July 1.

N. C., Kanapolis—Church—Reformed Church having plans prepared by C. W. Bolton, archt., Witherspoon Bldg., Phila., for 1 story, 60 x 80 ft. stone. About $100,000.

Tenn., Bristol—Bank and Office—Bank of Bristol plans to build 11 story, 130 room.

Ky., Louisville—Terminal—Louisville & Nashville R.R. plans to build new terminal here. About $15,000,000. L. V. Abbott, chf. engr.

Ky., Louisville—Theatre—Columbia Realty Co., c/o A. W. Johnson, archt. and engr., 369 5th Ave., New York City, having sketches made for brick, steel and stone, stone foundation. About $700,000.

O., Akron—Hospital—Summit Co. plans to build county hospital. Bonds for $1,000,000 voted for project.

O., Canton—High School—City plans to build 2 story, 100 x 200 ft., brick, on Park Ave., S.W. About $800,000.

O., Cleveland—Bank—Colonial Savings & Loan Co., 14600 Detroit Ave., plans to build 2 story, 50 x 100 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Detroit Ave and Warren Rd. About $100,000. H. Hart, secy. Architect not selected.

O., Cleveland—Bathhouse—City having revised plans prepared by J. H. MacDowell, archt., City Hall, for 2 story, 66 x 70 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Starkweather Ave. About $100,000. Noted April 22.

O., Cleveland—Commercial and Theatre—P. H. Luzins, archt., Erie Bldg., preparing plans for 2 story, 50 x 135 ft., brick and steel, brick foundation. About $135,000. Owner's name withheld.

O., Cleveland—Mercantile—J. Rabin, 827 Superior Ave., plans to build 4 story, 50 x 200 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, at 3602 Euclid Ave. About $250,000. Architect not selected.

O., Cleveland — Orphanage — Catholic Charities Corp., c/o A. O'Reilly, East 9th St. and Superior Ave., plans to purchase site in Cuyahoga Co. and build 3 story, rein.-con., steel and brick, rein.-con flooring, concrete foundation. About $500,000. Architect not selected.

O., Gallipolis—Cottage—Bd. Administration, East Oak St., Columbus, rejected bids July 7, building 1 story, 78 x 117 ft., brick and concrete at Ohio Hospital for Epileptics, here. Work will be postponed until next year. About $100,000. Noted June 17.

O., Sandusky—Church—Sandusky Trinity Methodist Episcopal Church having plans prepared by W. H. Nicklas, archt., 1900 Euclid Ave., Cleveland, for 2 story, 60 x 72 ft. and 60 x 112 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Wayne Ave. About $100,000. E. Sellers, pastor.

O., Uhrichsville—Library, Rest Room and Auditorium—City plans to build library, rest room and auditorium. About $250,000.

O., Warren—Hotel—Warren Hotel Co., c/o F. E. Robbinson, Guardian Bldg., Cleveland, having plans prepared by Moulthrop & Nichols, archts., 5716 Euclid Ave., Cleveland, for 8 story, 80 x 180 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $1,000,000.

O., Youngstown—Temple and Auditorium—Anshe Emeth Temple Congregation plans to build 2 story, brick, steel and terra cotta, including auditorium, 80 ft. in diameter, with 800 seating capacity, on Elm St. About $250,000. A. M. Frankle, chn. Bldg. Com.

Ind., Crown Point—Hospital — Comrs. Lake Co. had plans prepared by J. N. Coleman, archt., 6257 St. Lawrence St., Chicago, for 2 story, 100 x 200 ft. rein.-con., steel and brick. About $400,000.

Ind., Indianapolis—Hospital and Nurses' Home—City having plans prepared by W. E. Russ., archt., 313 North Pennsylvania St., for 4 story, 88 x 175 ft., rein.-con., steel and brick, rein.-con. flooring, on West Michigan St. About $400,000.

Mich., Detroit—Clubhouse and Auditorium—Polish Roman Catholic Union, 1616 Seminole Ave., plans to build 2 story, rein.-con., brick and steel. About $150,000. A. Przybylski, pres. Architect not selected.

Mich., Detroit—Library—Library Comm. retained G. V. Pottle, archt., David Whitney Bldg., to prepare plans for 2 story, 60 x 100 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Mack and Montclair Aves. About $100,000. A. Strohm, librarian. Noted Jan. 1.

Mich., Kalamazoo—School—Bd. Educ. having plans prepared by R. A. LeRoy, archt., 122 Pratt Blk., for 2 story, 159 x 362 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on North Burdick St.

Mich., St. Johns—Station—Grand Trunk Ry., Dinnan Bldg., plans to build 1 story, 27 x 105 ft. station and freight house, brick and stone, tile and rein.-con. flooring, brick foundation. About $100,000. A. N. Laird, Dinnan Bldg., asst. engr.

Ill., Chicago — Exchange — Holabird & Roche, archts., 104 South Michigan Ave., open bids in August, building 3 and 6 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Wabash Ave. and 9th St., for Vitagraph Co., Inc., 207 South Wabash Ave. About $125,000.

Ill., Chicago—Hotel—Rogers Park Hotel & Bldg. Corp., c/o B. L. Steif & Co., archts., 30 North La Salle St., having plans prepared for 9 story, 140 x 150 ft., rein.-con., terra cotta and brick, rein.-con. flooring, concrete foundation, on Sheridan Rd. and Pratt Ave. About $1,300,000.

Ill., Chicago—Office—Dubin & Eisenberg, archts., 139 North Clark St., open bids about Aug. 15, building 2 story, 110 x 141 ft., brick and steel, concrete foundation, on Roosevelt Rd. and Avers Ave., for H. R. Otto, c/o architects. About $125,000.

Ill., Evanston—Club—Holabird & Roche, archts., 104 South Michigan Ave., Chicago, open bids about Aug. 15, building 1½ story, brick and timber, concrete foundation, for Glenview Golf Club here. About $175,000. Noted July 8.

Ia., Des Moines—Office—Proudfoot, Bird & Rawson, archts., 810 Hubbell Bldg., receive bids about Aug. 10, building 2 story, 106 x 110 ft brick and rein.-con., on Grand St. between 9th and 10th Sts., for 1st and 2nd Mortgage Co., R & T Bldg. About $120,000.

Ia., Hinton—School—Bd. Educ. opens bids in August, building 2 story, brick, rein.-con. and steel. About $130,000. H. Brown, secy. Beuttler, Arnold, Grain Exch. Bldg., Sioux City, archts. Noted Jan. 8.

Ia., Mason City—Hotel—Proudfoot, Bird & Rawson, archts., 810 Hubbell Bldg., Des Moines, open bids about Aug. 1 building 6 story, rein.-con. and brick, for Mason City Hotel Co. About $1,000,000. Noted April 15.

Ia., Redfield—School—Bd. Educ. having plans prepared by W. Gordon, archt., 315 Hubbell Bldg., Des Moines, for 2 story, rein.-con., brick and steel. About $120,000. W. Taylor, secy. Noted May 6.

Minn., Marble—City Hall—Bd. Village Trustees rejected bids July 19, building 2 story, 80 x 120 ft., rein.-con., brick and tile. About $100,000. C. H. Parsons, 600 Builders Exch., Minneapolis, archt. Noted July 8.

Minn., Minneapolis—Chemistry—State Bd. Control, St. Paul, rejected bids July 20, building 3 story, 80 x 110 ft. rein.-con., brick, steel and stone addition on State University Campus. About $200,000. Project postponed until October.

Minn., Red Wing—Seminary—Lutheran Ladies Seminary having plans prepared by A. G. Gauger, archt., 302 Central Bank Bldg., St. Paul, for 3 story, 120 x 250 ft. rein.-con., brick and stone. About $400,000.

Kan., Wichita—Fire Station—City election Aug. 12, to vote on $125,000 bonds to build fire station in Riverside Addition. Architect and engineer not selected.

Kan., Wichita—Home—Order of Good Shepherd, 2001 Cleveland Ave., Kansas City, Mo., plans to build 3 story home, on College Hill, here. About $100,000. Architect and engineer not selected.

Kan., Wichita—Hotel—Arkansas Valley Interurban Ry., 120 West 1st St., plans to build 5 story, 90 x 180 ft., on Waco and Douglas Aves. About $100,000. G. Theis, Jr., pres. Architect and engineer not selected.

S. D., Mitchell—Auditorium—City receives bids about Aug. 16, building corn palace auditorium on North Main St. and 6th Ave. About $200,000. G. L. Rappy, 190 North State St., Chicago, archt.

Mo., Fulton — Gymnasium—Westminster College having plans prepared by Holmes & Flinn, archts., 8 South Dearborn St., Chicago, Ill., for 2 story, 70 x 140 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $120,000.

Mo., Nevada—Hotel—L. C. Hornshu having plans prepared by H. R. Primmer, archt., Nevada, for 4 story, rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $250,000.

Mo., Nevada—Sanitorium—L. C. Hornshu having plans prepared by H. R. Primmer, archt., Nevada, for 3 story, rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $200,000.

Mo., St. Louis—Fire Houses—City having plans pprepared for 6 new fire houses. About $360,000. Noted May 27.

Mo., Sedalia—City Hall—City having plans prepared by T. W. Blast, archt., Sedalia, for 2 story, 60 x 90 ft., rein.-con., steel and brick. About $100,000. N. S. Nelson, clk. Noted Jan. 8.

Ark., Ft. Smith—Headquarters—United Mine Workers of America plan to construct headquarters building for Dist. 21. About $100,000. Architect not selected.

Ark., Little Rock—Temple—Arkansas Consistory plans to build 3 story, 140 x 200 ft., rein.-con., brick and steel, temple, rein.-con. flooring, concrete foundation, on Scott St. About $700,000. Mann & Stern, 708 A. O. U. W. Bldg., archts.

Tex., Del Rio—Hotel—San Felipe Hotel Co. opens bids in September, building 6 story, rein.-con., brick and stone, concrete flooring. About $225,000. G. Willis, Chandler Bldg., San Antonio, archt. M. L. Diver, Ave. C and Travis St., San Antonio, engr.

Okla., Muskogee — College — Bacone College plans to construct Samuel Richards Memorial Building. E. Richards donated $100,000 for project. Architect and engineer not selected.

Ariz., Mesa—Hospital—Southside Community Hospital, c/o Berlin, Swern & Randall, archts., 19 La Salle St., Chicago, having plans prepared for 1st section to be 3 story, 42 x 100 ft., rein.-con. and terra cotta, rein.-con. flooring, concrete foundation. About $125,000.

Que., Montreal—Bank—City and District Savings Bank, St. James St., soon receives bids building 75 x 85 ft. brick, steel and stone, concrete foundation, on St. Catherine and City Hall Aves. About $150,000.

Que., Montreal — Hotel — United Hotel Co. having plans prepared by Ross & McDonald, archts., 1 Belmont St., for 16 story, 1,000 room, concrete, limestone, steel and brick, on Peel St., to be known Mount Royal. About $8,000,000.

Que., Montreal—Housing—Senneville Development Co. soon receives bids building 42 houses, also sewerage and water systems, on Cote de Nelghes Rd. Cost to exceed $250,000.

Que., Sherbrooke — Store — L. P. Steel Chain Store Co. plans to build on Wellington St. About $100,000.

Ont., London—Hall—City plans to build rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $1,250,000. Architect not selected.

Alta., Calgary—Theatre—Allen Theatre Co., Toronto, soon receives bids building concrete, brick and steel on 8th Ave., here. About $350,000.

Alta., Calgary—Theatre—Famous Players Corp. soon receives bids building rein.-con. on 8th Ave. About $500,000.

Alta., Edmonton—Theatre — Trans-Canada Theatre Co., Ltd., 453 Guy St., Montreal, Que., soon receives bids building theatre on Main St., here. About $325,000.

Buildings (Continued)

Cuba, Havana—Hospital—Anglo-Saxon Hospital having plans prepared by Berlin, Swern & Randall, archts., 19 South La Salle St., Chicago, Ill., for 5 story, rein.-con., rein.-con. flooring, concrete foundation. About $600,000.

BIDS DESIRED

Mass., Somerville (Boston P. O.)—Theatre—J. M. Parks, archt., 46 Pritchard Ave., receiving bids building 2 story, brick and steel, rein.-con. flooring, concrete foundation, on Moquin Sq. About $150,000. Owner's name withheld.

Conn., West Hartford (Hartford P. O.)—High School—Until Sept. 1, by Bd. Educ., building 2 story, 200 x 204 ft., brick, concrete, steel and stone, rein.-con. flooring, concrete foundation, on South Main St. About $500,000. W. T. Marchant, 36 Pearl St., Hartford, archt. Noted April 8.

Pa., McKeesport—School—Until Aug. 9, by Bd. Educ., building Centennial School, 2 story, 20 room, brick and fireproof construction. About $325,000. W. T. Morton, secy. Noted July 15.

O., Zanesville—Club—Amer. Rolling Mills Co., Linden Ave., receiving bids building 1 story, 64 x 192 ft. and 2 story, 57 x 113 ft., brick and steel, rein.-con. flooring. About $200,000. F. G. Mueller and W. R. Hair, Rentschler Bldg., Hamilton, archts.

Ind., Fort Wayne—Hospital and Nurses' Home—Until Sept. 3, by Comrs. Allen Co., building two 3 story, 42 x 87 ft. wings to Tuberculosis Hospital also 3 story, 26 x 39 ft. nurses home, brick, 8 mi. north of here. About $115,000. C. R. Weatherhogg, Citizens Trust Bldg., archt. Former bids rejected. Noted June 10.

Mich., Detroit—Club and Temple—Until Aug. 10, by B. C. Wetzel & Co., archts., Dime Bank Bldg., constructing 3 story, 45 x 123 ft. and 50 x 118 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on McDougal Ave. for Wayne Assembly, Order of Amaranth, c/o architects. About $160,000.

Mich., Detroit—Engine House—Until Aug. 2, by H. Brabyn, secy. Bd. Fire Comrs., West Larned St., building 2 story, 50 x 80 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Davison Ave. and Goddard St. About $100,000. C. Kotting, 2306 Dime Bank Bldg., archt.

Mich., Detroit — Schools — Until Aug. 11, by Bd. Educ., 50 Bway, building 46 x 117 ft. addition to Carstens School, on Coplin Ave., cost $200,000; 164 x 206 ft. addition to Jane Cooper School, on Georgia Ave. between Helen and Concord Aves., $330,000; 50 x 125 ft. addition to Nellie Leland School, on Russel and Catherine Sts., $200,000; 58 x 211 ft. Custer School, on Linwood Blvd. and Midland Ave., $300,000; 44 x 120 ft. addition to Crossman School, on Hamilton Blvd. and Taylor Ave., $170,000, each to be 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. Malcolmson, Higginbotham & Palmer, 405 Moffat Bldg., archts. Noted July 8.

Ill., East Moline—Grade School—Until Aug. 9, by School Bd., building 2 story, 48 x 140 ft., brick, rein.-con. flooring, on 17th Ave. and 10th St. About $95,000. Whitsitt & Schulzke, Peoples Bank Bldg., Moline, archts.

Ill., Monticello—School—J. C. Llewellyn, archt., 38 South Dearborn St., Chicago, receiving bids building 2 story, 112 x 172 ft., brick and steel, concrete foundation, for city. About $225,000.

Wis., Milwaukee—Sales—Van Ryn & De Gelleke, archts., Caswell Blk., receiving bids (on revised plans) for 2 story, 60 x 120 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Jackson St., for F. Achen Co., 155 Oneida St. Noted July 8.

Minn., Duluth—Church—Until Aug. 2, by J. Berger, chn. Lakeside Presbyterian Church Comn., building 2 story, 60 x 100 ft. brick and stone, rein.-con. flooring and foundation, on 45th Ave. E. About 100,000. P. M. Olsen, Sellwood Bldg., archt.

Kan., Emporia—Hospital—Until Aug. 2 (change of date), by Lyon Co. Hospital Bd., building 4 story, 40 x 150 ft. rein.-con., flooring. J. H. Felt & Co., 802 Grand Ave., Temple, Kansas City, Mo., archts. Noted July 8.

S. D., Mitchell—Academy—Until Aug. 4, by J. M. Brady, pastor, Holy Family Roman Catholic Church, Sioux Falls, building 3 story 38 x 94 ft. addition to Notre Dame Academy, here, rein.-con., brick, stone and steel. About $100,000. G. C. Hugill, Boyce Greeley Bldg., Sioux Falls, archt.

N. D., Ashley—Court House—Until Aug. 10, by J. Hildenbrand, aud. McIntosh Co., building 2 story, 63 x 94 ft. rein.-con. and brick. About $135,000. Buechner & Orth, 500 Shubert Bldg., St. Paul, Minn., archts.

Que., Verdun—School—Until Aug. 15, by Roman Catholic School Comn., building 3 story, 50 x 95 ft., brick and steel, concrete foundation, on Galt St. About $200,000. E. A. Benoit, 1198 Wellington St., archt.

Ont., Windsor—Hotel—United Border Cities Hotel Co., 17 Ouellette Ave., receiving bids building 10 story 400, room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $1,500,000. Watt & Blackwell, 79 Adelaide St. E., Toronto, archts. Noted Jan. 29.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Arlington** (Boston P. O.)—High School—School Com. let contract building 3 story, 65 x 140 ft., brick and steel, concrete foundation, on Massachusetts Ave., to M. W. Ryan, 2 Central Sq., Cambridge. About $150,000. Noted July 22.

★**Mass., Boston**—Theatre, etc.—Mowll & Rand, archts., 50 Bromfield St., let contract to G. B. H. Macomber Co., 44 Bromfield St., converting store and office building on Washington and Essex Sts., into theatre, brick, concrete and steel, rein.-con. flooring, for Washington-Essex Bldg. Trustees, 723 Scollay Bldg. About $1,500,000. Noted July 15.

★**Mass., Holyoke**—Theatre—J. H. Baker, 269 Maple St., let contract building 3 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, to P. J. Kennedy & Co., Inc., 464 Maple St. About $250,000. Noted June 24.

★**Mass., Kingston**—Hotel—United Fruit Co., Bd. Trade Bldg., Boston, let contract building 3 story brick, rein.-con. and steel addition to Myrtle Bank Hotel, rein.-con. flooring, concrete foundation, here, to Aberthaw Constr. Co., 27 School St., Boston. About $225,000.

★**Mass., Watertown** (Boston P. O.)—Bank—Union Market Natl. Bank, Main St., let contract building 1 story, 45 x 80 x 105 ft., brick, stone, concrete and steel, rein.-con. flooring, concrete foundation, to W. H. Bliffe, Irving St. Noted July 1.

★**Mass., Worcester**—School—Bd. Educ. let contract building 2 story addition to Tatnuck School, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Pleasant St., to L. Rocheford & Son, 44 Front St. About $100,000.

★**Conn., Hartford**—Business—D. A. Guerriero, archt., 647 Main St., let contract to Southern New England Contg., Co., 173 State St., building 4 story, 32 x 100 ft., brick and rein.-con., rein.-con. flooring, concrete foundation, on Main St., for Pallotti, Andretta Co., 96 Windsor St. About $100,000. Noted May 6.

★**Conn., Hartford**—Hospital—St. Francis Hospital, Woodland St., let contract building 3 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Woodland, Collins and Ashley Sts., to W. F. O'Neil, 277 Farmington Ave. About $500,000. Noted July 22.

★**Conn., Waterbury**—Church — O'Connell & Shaw, archts., 18 Boylston St., Boston, let contract to M. A. Durrschmidt, Main St., Derby, building 1 story, brick, concrete and steel, rock foundation, on Southmayo Rd., for St. Peter & Paul Society, 78 Scoville Rd. About $100,000. Noted July 15.

N. Y., Genessee—School—F. B. Gilbert, deputy comr. of educ., Albany received only bid furnishing labor and material building addition to State Normal School, here, from C. A. Foote, Mt. Morris, $96,619.

N. J., West New York (Weehawken P. O.)—School—Bd. Educ. received bids June 30, building school on 18th and Polk Sts., from De Riso Bros., 17 Bline Ave., West New York, $561,484; A. W. Cronin & Sons, Jersey City, $567,000; Dose Eng. Co., 229 5th Ave., New York City, $579,990. Noted June 24.

★**Pa., Erie**—Bank—Second Natl. Bank, 8th and State Sts., let contract building 1 story, 60 x 130 ft., brick, steel and stone, brick foundation, on 9th St., to H. Shenk, Erie. About $400,000. Noted July 1.

★**Pa., Hazleton** — Church — Church of Transfiguration let contract building 2 story, 60 x 130 ft., brick and stone, rein. foundation, to H. L. Campbell, Noble St. About $100,000.

★**Md., Baltimore**—Fire House and Police Station—Comrs. Baltimore Co. let contract let contract building five 2 story, 41 x 6 ft., concrete and brick, concrete foundation on Belair Rd., also in towns of Pikesville, Essex, Dundalk and Halethorp, to C. W. Tovell, Eutaw and McCulloch Sts. About $100,000.

★**N. C., Morgantown** — Hotel — Blue Hotel Co. let contract building 60 room hotel, to Mackle Constr. Co., Grant Bldg., Atlanta, Ga. About $150,000.

★**N. C., Reidsville** — Hotel — Reidsville Hotel Co. let contract building 60 room hotel, to Mackle Constr. Co., Grant Bldg., Atlanta, Ga., $150,000.

★**Ala., Mobile**—Dept. Store—Gayfer Dept. Store, 171 Dauphin St., let contract remodeling 4 story, 125 x 150 ft. and building 1 story addition rein.-con. brick and steel, rein.-con. flooring, concrete foundation, at 12-20 St. Emanuel St., to Hancock & Harbin, St. Francis St. About $125,000.

★**O., Cleveland**—Exchange—Cleveland Telephone Co., Engineers Bldg., let contract building 3 story, 80 x 137 ft., rein.-con. steel and brick, rein.-con. flooring, concrete foundation, at 12211 St. Clair Ave., to Lundoff-Bicknell Co., 5716 Euclid Ave. About $300,000.

★**O., Cleveland**—Temple — Anshi-Emeth-Beth-Tephito Congregation, c/o L. Kohn, 10615 Grantwood Ave., let contract building 2 story, 150 x 240 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on East 105th St. and Hampden Ave. to Edwards Eng. Co., Hippodrome Annex Bldg. About $500,000. Noted Jan. 22.

★**O., Columbus** — School — Bd. Educ. let contract building 2 story, 110 x 120 ft. rein.-con. and brick, on Fulton St., to E. H. Latham Co., 60 East Broad St., $121,67[illegible]. Noted July 22.

★**O., Linden Heights**—School—Bd. Educ. let contract building 2 story, irregular shaped, rein.-con. and brick, to E. H. Latham Co., 60 East Broad St., Columbus, $150,447. Noted July 22.

★**O., Warren**—High Schools—Bd. Educ. let contracts to Shustrump Co., Youngstown, building 2 story, 125 x 150 ft. addition to East Technical High School, $322,[illegible]; also 2 story, 110 x 182 ft. addition to West Technical High School, $329,869. Noted July 22.

★**O., Youngstown**—Hospital—City let contract building 2 story, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, to Parish Bros., 217 Wick Ave. About $200,000. Noted July 22.

Mich., Detroit — Schools — Bd. Educ., 50 Bway., received bids on masonry work for building (a) Pattengill School, 105 x 200 ft., on Northfield and Spokane Aves., (b) George School, 77 x 159 ft., on Russell and Superior Sts., (c) White School, 58 x 211 ft. and 43 x 111 ft., on Charles Ave., (d) Davison School, 65 x 104 ft., on Roman and Jos. Campau Aves., all 2 story, from F. H. Goddard, 516 Franklin St., (a) $188,860; Cooper-Widemann Co., 1430 Penobscot Bldg., (a) $198,300, (d) $105,600; M. Bartholomaei Son & Co., 466 East Warren Ave., (b) $91,445; F. N. Cooper, 400 Penobscot Bldg., (b) $105,000; N. A. Mahoney, 400 Penobscot Bldg., (b) $113,333; J. Bollin, 906 Bellevue Ave., (c) $256,885; Brayton Eng. Co., 907 Kresge Bldg., (c) $269,719; Corrick Bros., 507 Owen Bldg., (c) $274,500, (d) $110,000; Culbertson & Kelly, 814 Ford Bldg., (d) $96,347; carpentry work, from Harcus & Co., 774 Russel St., (a) $86,834, (b) $33,067, (c) $86,996; E. Thiede, 287 Berlin St., (a) $90,000, (b) $33,400, (c) $66,500, (d) $54,500; H. M. Martens Co., 221 Moffat Bldg., (c) $67,200, (d) $52,167; heating, ventilating and plumbing, from Irvine & Meier, 2989 Woodward Ave., (a) $94,272; J. W. Portlan, 51 Park Pl., (b) $56,995, (c) $92,8[illegible]; O'Connor Bros., Vinton Bldg., (b) $60,[illegible], (c) $99,998, (d) $85,741; Drake Avery Co., 40 State St., (c) $120,682. Noted July 8.

★**Ill., Chicago** — Office — Chicago, Rock Island & Pacific R. R., 110 South Dearborn St., let contract bulding 3 story, 60 x 8[illegible] ft., rein-con. and brick, rein.-con. flooring, concrete foundation, on 63rd St. along tracks Rock Island R.R., to J. E. Nelson & Sons, 3240 Michigan Blvd. About $100,000.

★**Ill., Chicago** — Restaurant — Capitol Bldg. Corp., c/o Fugard & Knapp and W. E. Perry, archts., 64 East Van Buren St., let general contract building 3 story, 50 x

Buildings (Continued)

111 ft., concrete and brick, concrete foundation, to H. Ericsson Co., 139 North Clark St. About $200,000. Noted May 27.

★**Wis., Milwaukee**—School—School Bd., 10th and Prairie Sts., let masonry contract building 2 story, 170 x 170 ft., on Greenbush St., to P. W. Bringe, 1136 17th St., $108,-300.

★**Ia., Cushing**—School—Bd. Educ. let contract building 3 story, 59 x 111 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, to W. F. Kucharo & Co., 622 Hubbell Bldg., Des Moines. $111,444. Noted March 11.

★**Ia., Des Moines**—Nurses' Home—Lutheran Hospital Assn. let contract building 3 story, rein.-con., brick and steel, to J. A. Benson, 442 V. N. B. Bldg. About $150,-000; cost plus percentage basis.

★**Ia., Larrabee** — School — Bd. Educ. let contract building 3 story, 82 x 139 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, to W. F. Kucharo & Co., 622 Hubbell Bldg., Des Moines. About $124,500. Noted Feb. 5.

★**Ia., Morning Sun**—School—Bd. Educ. let contract building 2 story, 56 x 130 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, to Western Constr. Co., Earlham, $142,400. Noted April 29.

★**Ia., Packwood**—School—Bd. Educ. let contract building 2 story, 58 x 99 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, to W. F. Kucharo & Co., 622 Hubbell Bldg., Des Moines, $92,980. Noted April 15.

★**Ia., Pocahontas**—School—Bd. Educ. let contract building 3 story, 66 x 126 ft., rein.-con., brick and steel, to C. E. Larson, Ft. Dodge, $118,400. Noted June 10.

★**Minn., Buhl**—High School—Bd. Educ. let contract building south section of high school on Chestnut St., 3 story, 108 x 287 ft., rein.-con., brick and steel, to Natl. Contg. Co., Virginia, $292,549; heating and ventilating for north and south sections, to Amer. Heating Co., 228 West Michigan St., Duluth, $145,587; electrical work for north and south sections, to Sterling Electric Co., 22 South 5th St., $38,165.

★**Kan., Linwood**—School—Bd. Educ. let contract building 3 story, 86 x 100 ft. rein.-con. and brick, rein.-con. flooring, to Cork & Ferrier, Manhattan. About $110,600. Noted July 1.

★**Wyo., Rawlins**—Hospital—Bd. Comrs. Carbon Co. let contract building county hospital, to H. Larsen, Rawlins. About $112,000. Noted June 3.

★**Mo., St. Louis**—Store—Central Natl. Bank, Bway. and Olive St., let general contract altering building on 7th and Olive Sts., to R. S. Price, Arcade Bldg. About $100,000.

★**Tex., San Antonio**—Office—Pub. Serv. Corp. let general contract building 3 story, 82 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, on St. Marys St., to C. P. Schoenfeld, 324 Hunstock St. About $163,000.

★**Wash., Pullman**—College—Washington State College let contract building 1 story, 75 x 140 ft., concrete, concrete foundation, to S. G. Morin, 802 5th St. N., Spokane, $103,345.

★**N. B., St. John**—Bank—Royal Bank of Canada, St. James St., Montreal, Que., let contract building 3 story, 76 x 82 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation here, to Dickie Constr. Co., Ryrie Bldg., Toronto, Ont. About $230,000.

★**Ont., Toronto**—School—Separate School Bd., 67 Bond St., let contract building 2 story, 8 room, concrete, brick and steel, rein.-con. flooring concrete foundation, on Beverly St., to H. L. Symons & Co., 43 Scott St. About 100,000.

★**Ont., Toronto**—Theatre—Famous Players Film Corp., Temple Bldg., let contract building 1 and 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation on Danforth and Pape Aves. to N. McLeod, Kent Bldg. About $200,000. Noted May 13.

Federal Government Work

PROPOSED WORK

R. I., Providence—Dismantling Boiler Shop—Spec. 4256. Bureau of Yards & Docks, Navy Dept., Wash., D. C., received no bids July 21, dismantling, here.

D. C., Wash.—Dispensary—Spec. 4226—Bureau Yards & Docks, Navy Dept., soon receives bids building, here; $10 deposit required for plans and spec. Noted June 17.

ROAD WORK—VERMONT

Bids were received by State Highway Comn., Montpelier, for construction 5.6 mi. Federal Aid Project 14, from Dummerston, from (A) Falkill Constr. Co., 1 Washington Sq., Poughkeepsie, N. Y., (awarded contract); (B) Alco Contr. Co., Boston, Mass.; (C) Walter E. Dix Corp., Springfield; (D) Perini & Sons, Inc., Ashland, Mass. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
34,445 cu.yd. earth excavation	$1 40	$1 80	$1 90
3,011 cu.yd. rock excavation	4 00	6 00	7 00
1,054 cu.yd. borrow	1 40	2 00	2 50
1,479 cu.yd. sub-base of field or quarry stone	2 50	5 00	5 00
Sub-base of gravel, per cu.yd	2 50	2 50	3 00
14,106 cu.yd. gravel surface course	2 81	2 75	2 60
144 cu.yd. concrete, Class A (1-2-4)	28 00	30 00	25 00
402 cu.yd. concrete, Class C (1-3-6)	16 00	29 00	20 00
7,992 lb. reinforcing steel	12	10	07
10,536 lin.ft. wooden guard rail	60	75	1 00
338 lin.ft. 12-in. corrugated pipe culverts	1 00	2 75	2 00
34 lin.ft. 14-in. corrugated pipe culverts	1 50	3 00	2 25
206 lin.ft. 16-in. corrugated pipe culverts	2 00	4 50	2 50
89 lin.ft. relaying pipe culverts	10	2 00	1 10
600 lin.ft. standard underdrain	40	2 50	1 00
100 sq.yd. cobble gutter	1 10	1 50	2 00
Cobble gutter grouted with cement mortar, per sq.yd	1 50	2 00	2 50
2 leaching basins	50 00	100 00	10 00
Extended totals	$124,083	$157,027	$158,149

Bids were received by State Highway Comn., Montpelier, for constructing 13.57 mi. Federal Aid Project No. 12, Dorset-Mt. Tabor-Danby, from (A) Pascal G. Ricci, Rutland; (B) M. H. Ripton, Rochester, N. Y. The unit bids were as follows:

	A	B
47,554 cu.yd. earth excavation	$1 50	$2 25
478 cu.yd. rock excavation	9 50	6 00
4,428 cu.yd. borrow	1 25	2 50
2,892 cu.yd. sub-base of napped field or quarry stone	3 50	5 00
Sub-base of gravel, per cu.yd	3 65	5 00
32,841 cu.yd. gravel surface course	4 50	5 75
485 cu.yd. concrete, Class A (1-2-4)	22 00	25 00
708 cu.yd. concrete, Class C (1-3-6)	20 00	22 00
26,773 lb. reinforcing steel	10	12
21,180 lin.ft. wooden guard rail	75	80
192 lin.ft. 12-in. corrugated pipe culverts	2 00	2 00
646 lin.ft. 14-in. corrugated pipe culverts	2 25	2 50
68 lin.ft. 16-in. corrugated pipe culverts	2 60	3 00
324 lin.ft. 18-in. corrugated pipe culverts	2 80	3 50
400 lin.ft. relaying pipe culverts	50	2 00
200 lin.ft. standard underdrain	1 25	1 00
100 sq.yd. concrete gutter	2 00	3 00
200 sq.yd. cobble gutter	1 25	1 50
Cobble gutter grouted with cement mortar per sq. yd.	1 70	2 00
27 sq.yd. paving	1 50	3 00
4 leaching basins	35 00	50 00
2 drop inlet grates	15 00	10 00
11 cu.yd. broken stone for blind drain	2 00	4 00
20 cu.yd. rip-rap	2 50	6 00
Extended totals	$286,810	$377,490

Bids were received by State Highway Comn., Montpelier, for constructing 4.03 mi. Federal Aid Project No. 15, from South Burlington to Shelburne, from (A) W. T. Thayer & Son, Chateaugay, N. Y., (awarded contract); (B) John Arborio, New Haven, Conn. The unit bids were as follows:

	A	B
2,296 cu.yd. earth excavation	$2 00	$2 10
800 cu.yd. rock excavation	3 00	5 00
7,175 cu.yd. borrow	1 90	2 25
1,166 cu.yd. sub-base of field or quarry stone	5 00	5 50
Sub-base of crushed rock or slag, per cu.yd	6 00	5 50
Sub-base of gravel, per cu.yd	5 00	5 00
4,142 cu.yd. broken stone base course	8 00	6 00
Reconstructed base course stone, per cu.yd	5 00	3 00
Shaping reconstructed base course, per sq.yd	19	3 50
Telford base course, per cu.yd	7 00	6 00
4,142 cu.yd. bituminous macadam surface course	8 00	9 75
111,825 gal. oil asphalt	20	.25
Fluxed Bermudex asphalt, per gal		.28
Refined tar, per gal		.24
37 cu.yd. concrete, Class A (1-2-4)	20 00	28 00
73 cu.yd. concrete, Class C (1-3-6)	15 00	20 00
515 lb. reinforcing steel	15	.12
3,640 lin.ft. wooden guard rail	50	.75
12-in. corrugated pipe culverts, per lin.ft.	1 25	2 25
132 lin.ft. 18-in. corrugated pipe culverts	1 50	3 75
900 lin.ft. standard underdrain	75	2 00
Cobble gutter, per sq.yd	1 25	1 25
Cobble gutter grouted with cement mortar, per sq.yd	1 75	1 50
Extended totals	$119,697	$132,154

D. C., Wash.—Repairing Wharf and Slips—Spec. 4260—Bureau Yards & Docks, Navy Dept., soon receives bids repairing Wharf 3 and Slips 2 and 3; $10 deposit required for plans and spec.

S. C., Charleston—Improving Boiler Plant—Spec. 4252—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids improving, here; $10 deposit required for plans and spec.

Tex., Del Rio—Sewage Ejector—Treas. Dept., Wash., D. C., received no bids July 22, installing in U. S. Post Office and Courthouse, here. J. A. Wetmore, superv. archt. Noted July 15.

Ariz., Yuma—Secy. of Interior has approved plan for developing 5,000 acres of irrigable lands, known as 2nd unit of Yuma Mesa Auxiliary Project. Election soon to vote on $800,000 for project.

BIDS DESIRED

Mo., St. Louis—Changes in Post Office—Until Aug. 9, by Treas. Dept., Wash., D. C., making changes in U. S. Post Office, here. J. A. Wetmore, superv. archt.

N. M., Ft. Stanton—Remodeling Boiler—Until Aug. 16, by Treas. Dept., Wash., D. C., remodeling boiler at sanatorium, here. J. A. Wetmore, superv. archt.

Oregon—Road Work—Until Aug 3, by Bureau Pub. Rds., U. S. Dept. of Agriculture, Post Office Bldg., Portland, surfacing 7 mi. Medford Klamath Falls Natl. Forest Rd. Project, involving 14,000 cu.yd. crushed rock, 14.5 mi. McKenzie River Natl. Forest Rd., crushed rock or gravel, also improving 2.2 mi. Dead Horse Grade Lane, involving 12 acres clearing, 26,000 cu.yd. excav., one 30 ft. timber span and 500 ft. culvert. C. H. Purcell, dist. engr.

Federal Government Work (Continued)

PRICES AND CONTRACTS AWARDED

(*Indicates award of contract)

★**Me., Portland**—Steel Hangars, Generator Houses, etc.—Chief of Constr. Div., Bldg "C," 7th and B Sts., Wash., D. C., let contract constructing at Coast Defenses here to Forglone & Romano. Noted June 3.

★**N. Y., Brooklyn**—Kitchen and Commissary Equipment—Spec. 4177—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in Bldg. F, at Naval Hospital, here, to J. Hoos Co., 306 South Hanover St., Baltimore, Md., $14,404 (90 days). Noted July 22.

N. Y., New York—Gasoline Storage Shed—Spec. 4224—Bureau of Yards & Docks, Navy Dept., Wash., D. C., received bids building at Navy Yard, here (1) work complete, from W. F. Stewart, Hotel San Remo, New York City, (1) $5,256 (60 days); R. M. Kearns, 692 Washington St., New York City, (1) $5,777 (70 days), (2) $222; Anchor Corrugating Constr. Co., 140 Washington St., New York City, (1) $5,827 (60 days), (2) $6,552 (60 days). Noted July 15.

★**N. Y., New York**—Steel Hangars, Generator Houses, etc.—Chief of Constr. Div., Bldg. "C," 7th and B Sts., Wash., D. C., let contract building at Coast Defenses here and Long Island to Post & McCord, 101 Park Ave.

Pa., Pittsburgh—Gate and Valve Operating Machinery—U. S. Engr. Office, 2111 Farmers Bank Bldg., received lowest 3 bids July 15, furnishing and delivering for Emsworth Dam, Ohio River, (1) Lot "A", (2) Lot "B", from J. and J. B. Milholland Co., 714 5th Ave., (1) $10,576, (2) $15,280; C. Hegewald Co., New Albany, Ind., (2) $19,790; Poole Eng. & Machine Co., Woodberry, (1) $14,406, (2) $24,530. Noted June 24.

★**D. C., Wash.**—Clearing Railroad Bed—U. S. Engr. Office, War Dept., let contract clearing railroad bed from Somoa to North Jetty, Cal., to Mercer-Fraser Co., Eureka, Cal., $13,995.

★**D. C., Wash.**—Fence and Gates—U. S. Engr. Office, War Dept., let contract building 2 mi. fence and 3 gates, at Munitions building between Andrade, Cal., and Algodones, Mexico, to Standard Fence Co., 310 12th St., Oakland Cal., $11263.

★**Mo., St. Louis**—Repairing Boiler Plant Treas. Dept. Wash., D. C., let contract repairing at Marine Hospital, here, to W. Wilby, Selma, Ala., $4,000 (Nov. 1). Noted July 22.

★**Wash., Puget Sound**—Steel Hangars, Generator Houses, etc.—Constr. Quartermaster, Ft. Mason, San Francisco, let contract constructing at Coast Defenses here to Quist & Co., San Francisco. Noted June 3.

★**Cal., San Francisco**—Steel Hangars, Generator Houses, etc.—Constr. Quartermaster, Ft. Mason, let contract building at Coast Defenses here to Lange & Bergstrom, Sharon Bldg. Noted June 3.

Miscellaneous

PROPOSED WORK

Equipment—Secaucus, N. J. (Weehawken P. O.)—N. J. Bd. Comrs. Hudson Co., Jersey City, soon receive bids installing motor power electric plant in power house here. Cost to exceed $30,000.

Asphalt Plant—Phila., Pa.—City plans to build and equip new asphalt plant. About $75,000.

Coal Breaker—Port Blanchard (Pittston P. O.), **Pa.**—Pennsylvania Coal Co., River Rd., having plans prepared for 100 x 400 ft. coal breaker, 125 ft. high, rein.-con. and steel, rein.-con. flooring, rock foundation on main road. About $1,000,000. Noted March 11.

Dam-Koss (Stephenson P. O.), **Mich.**—Marinette & Menominee Paper Co., Marinette, Wis., having plans prepared for 564 ft. concrete dam, 24 ft. wide at bottom with varying thickness at top, equipped with 7 steel tainter gates, each 20 ft. wide and 10 ft. deep, long shute or sluice, 5 ft. wide and 4 ft. deep. Private plans.

Eliminating Grade Crossings—St. Louis Mo.—City having plans prepared for eliminating grade crossings. About $905,000. Noted May 27.

★**Dock—Seattle, Wash.**—See "Industrial Works."

Dock — Owen Sound, Ont. — Dominion Government, Ottawa, plans to build concrete dock here. About $80,000. E. Lafleur, c/o Dept. Pub. Wks., Ottawa, engr.

BIDS DESIRED

Heating System—Comstock, N. Y.—Until Aug. 3, by C. F. Rattigan, supt. state prisons, Capitol, Albany, repairing heating system in cell blocks and cage, at Great Meadow Prison, here; advertised in this issue.

Road Materials—New York, N. Y.—Until Aug. 2, by Bd. Purchase, Mnuicipal Bldg., furnishing and delivering lime, cement, fire clay and other building materials, to Dept. Corrections, also structural steel and rivets to Dept. Plants & Structures.

Piles—Detroit, Mich.—Until Aug. 17, by Bd. Water Comrs., East Jefferson Ave., furnishing and placing 438,000 lin.ft. concrete piles for foundations of filter beds and coagulation basins. H. S. Starkey, secy.; advertised in this issue.

Portland Cement—Detroit, Mich.—Until Aug. 2, by Comrs. Purchases & Supplies, Municipal Courts Bldg., furnishing f. o. b. Detroit, 200,000 bbl. Portland Cement.

Equipment — Jackson, Mich. — G. Brady receiving bids on steam shovel with ¾ or 1 yd. dipper and extra long dipper sticks for use in gravel pits.

Motor Driven Pump, Oil Switches, Air Compressor, etc. — Florence, Wis. — Until Aug. 17 (change of date), by C. R. Johnson, comr. Waterworks Impvt. Dept., furnishing f.o.b. 3 centrifugal motor driven pumps, 2 operating panels equipped with automatic controllers, meters and oil switches, etc. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr. Noted July 22.

Cement—Minneapolis, Minn.—City receiving bids for 2,000 bbl. cement, crushed rock. K. E. Alexander, city purch. agt.

Culverts—St. Joseph, Mo.—Until Aug. 9, by State Highway Dept., at St. Joseph, building culverts on 20.02 mi. Sect. "B" St. Joseph-Atchison Rd., 24 ft. wide, Federal Aid Project 49, involving 376.6 cu.yd. Class "B" and 230.4 cu.yd. Class "C" concrete masonry, 29,748 lb. reinforcement for concrete masonry, 2,916 lin.ft. 15-36 in. rein.-con. pipe culverts, and 28 lin.ft. relaid pipe culvert, cost $29,657.

A Sign of Prosperity

This issue contains

Notice of Bids

to be opened for

63 Streets and Roads
13 Sewers
3 Water-works
18 Bridges
13 Excavation and Dredging
7 Industrial Works
33 Buildings
18 Federal Government
10 Miscellaneous

Totaling Millions of Dollars

Dam—Montreal, Que.—Until Aug. 2, by Water Bd. building dam across aqueduct near Vedun Asylum.

Paving Blocks—Outremount, Que.—City receiving bids furnishing 240,000 paving blocks. About $30,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Ferry Boat — Boston, Mass. — City received bids July 20, building (a) 1 ferry boat, (b) 2 ferry boats, from Winnisimmet Shipyard, Inc., Boston, (a) $335,000 (12 mo.), (b) $655,000 (15 mo.); Groton Iron Wks., Eastern Point, Groton, Conn., (a) $379,950 (8 mo.), (b) $743,840 (9 mo.); Bath Iron Ltd., (a) $387,000 (9 mo.), (b) $740,000 (10½ mo.).

★**Granite Edgestone — Boston, Mass.**—City let contract furnishing 30,000 lin.ft. straight granite curbstone, to Lombard Granite Co., 279 Rutherford Ave. Noted July 22.

Road Materials—Boston, Mass.—City received bids furnishing 50,000 gal. hot tar and 50,000 gal. cold tar patching material from Independent Coal Tar Co., 26 Broad St., $0.21 per gal.; 200,000 vitr. paving bricks, from J. W. Hahn, 166 Devonshire St.

★**Ventilating System — Boston, Mass.** — Commonwealth of Massachusetts let contract installing ventilating system in various rooms at State House to Cleghorn Co., 54 Batterymarch St., $55,310.

★**Pier and Approach—Everett, Mass.**—Merrimac Chemical Co., 148 State St., Boston, let contract building rein.-con. pier, approach and foundation, here, to Abertham Constr. Co., 27 School St., Boston. About $70,000.

★**Bulkhead and Dock—Bridgeport, Conn.**—Crane Co., South Ave., let contract building 250 ft. bulkhead and 200 ft. dock on wood pile foundation, to T. J. Pardy Constr. Co., 1481 Seaview Ave. About $60,000.

★**Excavators — Syracuse, N. Y.** — Onondaga Co. let contract for two model 4 Keystone excavators, to Keystone Drilling Co., Beaver Falls, Pa., $12,398. Noted July 15.

★**Foundations—Baltimore, Md.**—Prest-O-Lite Co., Inc., let contract building foundations for eight 1 and 2 story, brick and steel buildings, rein.-con. flooring, concrete foundations, averaging 25 x 50 ft. each, to West Constr. Co., 207 Amer. Bldg. Total cost $125,000.

★**Pumps—Cleveland, O.**—City let contract furnishing and installing two 8,000,000 gal. and one 1,000,000 gal. motor driven vertical centrifugal pumps with motors, electrical equipment, etc., to Dravo-Doyle Co., Diamond Bank Bldg., Pittsburgh, Pa., $20,736. Noted July 15.

Creosoted Block—Milwaukee, Wis.—City received bids July 6, furnishing 9,000 cu.yd. creosoted blocks for reconstructing roadway on 27th St. viaduct, from Dean Constr. Co., 82 Wisconsin St., $45,405; Blodgett-Clayton Constr. Co., 204 Grand Ave., $46,340; noted July 1 under "Bridges."

★**Structural Steel—Milwaukee.**—City let contract furnishing 125 ton structural steel for reconstructing roadway of 27th St. viaduct, to Worden-Allen Co., Port Washington Rd., $19,595. Noted July 1, under "Bridges."

★**Foundation—Owen, Wis.**—Clark Co. let contract building foundation for 2 story, 46 x 200 ft. brick and concrete, asylum, to E. F. Bauman, Monroe. About $74,000. Noted May 27.

★**Foundation—West Allis, Wis.** (Milwaukee P. O.)—St. Aloysius Church, 521 Murray Ave., Milwaukee, let contract building foundation for 2 story, 60 x 100 ft., rein.-con. and brick school, rein.-con. flooring, concrete foundation, on Greenfield Ave., here, to G. Kahn, 114 Grand Ave. Noted July 22, under "Buildings."

Culverts—Tipton, Ia.—Cedar Co. let contracts building concrete culverts in various streets, Item 1109 and Group M., to V. L. Hanssen, Monticello, $20,858; Items 1111-1115 inc., to J. Anderson & Son, Maquoketa, $37,953; Group L to A. P. Munsen, Marion, $27,671; Groups N and O to Vinton Eng. & Constr. Co., Vinton, $19,689; Groups P and S, to Wickes Eng. & Constr. Co., 1160 13th St., Des Moines, $20,250; Groups T and U, to S. R. Johnston, Tipton, $16,220. Noted June 3.

★**Breakwater—Corpus Christi, Tex.**—City let contract building riprap breakwater in Corpus Christi Bay, to D. M. Picton & Co., Corpus Christi. About $570,000. Noted May 20.

CONSTRUCTION NEWS

UPS AND DOWNS OF THE MARKET

PIG IRON—The market for prompt tonnages is particularly strong, owing to many inquiries and extremely limited supplies. The shortage is especially for foundry iron, as only a few merchant furnaces are making this grade and most of them are sold up through the remainder of the year.

RAILWAY SUPPLIES—Demand for light rails for coal mines seems to have improved although price changes are practically negligible. Last month's figures for standard spikes in Chicago are now given as the lower limit of a range: $3.62@$4.25.

SEWER PIPE—Sewer pipe declined in price in Boston, but advanced in Minneapolis, Baltimore and Detroit. Fluctuations are so erratic in Denver that companies decline to give quotations at this time.

CONCRETING MATERIALS—The present price of cement in New York is $4.10 exclusive of bags, delivered, an increase of 30c over last month. The price is advanced 25c in Jersey City, present quotation being $3.22 net. Fluctuations are such that this Jersey City price is only temporary. For example, one of the large dealers has received an offer from one manufacturer at $3.77 as against his own price to contractors of $3.22. His price is an advance of 25c over cost, but he does not wish to make any contracts on this basis, owing to the uncertainty of the market. The reason for the unusually high prices appears to be the coal situation. Although cement manufacturers have for the most part contracts, they are unable to obtain sufficient coal on the contracts and are therefore buying in the open market at prices ranging up to $15 per ton. The only price change in the Middle West is in Minneapolis and St. Paul, which occurred because of a freight adjustment. The Denver price is now $3.80 net. Crushed stone advanced in Chicago, Minneapolis and Montreal. Hydrated lime advanced in Boston, but decreased in Detroit and Baltimore.

REINFORCING MATERIALS—Reinforcing bars, triangle mesh, and expanded metal lath are quoted the same as last month with the same conditions prevailing.

BRICK—Common brick advanced 50c in New Orleans, $1 in Chicago and $3 to $5 in Minneapolis. Prices of paving block are the same as last month, but the car shortage has made it difficult to obtain the block in certain cities. We have heard of a quotation of $80 per thousand for 4-in. block in Boston.

HOLLOW TILE—Up in Minneapolis; down in Detroit, Boston and New Orleans. Quotations have been withdrawn in Denver.

STRUCTURAL MATERIAL—The higher range of prices of beams, channels and angles has been dropped from $3.75 to $3.10. In Pittsburgh the price of tees remain the same; plates have advanced 25c, to a level of $4. At warehouses prices remain unchanged. Inability of fabricators to secure raw material has lowered production, while a shortage of flat cars interferes with shipments. The demand for plates is not excessive and the Steel Corporation will accept orders.

PREPARED ROOFING AND ROOFING MATERIALS—Prepared roofings advanced 10c per square in New York, with the Philadelphia price at the same level as was the New York price last month. Slate surface roofing in rolls of 108 sq.ft. advanced to $4.25 as against $3.50 last month. Tar pitch, asphalt pitch and asphalt felt advanced.

STEEL SHEETS—In spite of some cancellations of orders by automobile builders the demand for sheets is holding firm. Prices also are firm owing to obligations upon the mills that will tax them for the remainder of the year. Few manufacturers will accept orders. Unfilled tonnages of independent makers are reported as approaching 1,000,000 tons. At New York warehouses the range has advanced from 30c to $1 on galvanized sheets, and the higher limit for black sheets has advanced 70c, giving a range for No. 28 of $8@$9.70.

LUMBER—Douglas fir advanced $3 per thousand in San Francisco. Pine prices in New York and St. Louis remain the same, but declined considerably in Chicago, due to a flat market. There were abrupt decreases in Boston and Denver. The Lumbermen's Bureau reports that for nearly a month yellow pine production has been falling off because of the declining market and the difficulties of transportation. Fifty per cent of the normal supply of cars is about the best that most mills are obtaining, while some are able to secure only 25%, which amounts almost to a shut-down. In New Orleans the lowest price since the war was reached for pine lumber about one month ago, but there has been a slight advance in the meantime.

LABOR—Wage increases in Boston, Denver, Minneapolis and Pittsburgh. Bricklayers are paid $1.50 per hour in Pittsburgh, as against the former price of $1.12½, following a seven weeks' strike. Carpenters are to receive $1.25 per hour in Pittsburgh after Sept. 16, as a result of the strike settlement. In Minneapolis there has been a 5c increase in the common labor rate, and another increase is expected in a few weeks; but this is seasonal, due to the lure of the grain fields in harvest time. In Chicago the labor supply is plentiful and contractors report increased efficiency.

Price advances are indicated by **heavy type**; declines by *italics*

PIG IRON—Quotations compiled by The Matthew Addy Co.:

	Current	One Year Ago
CINCINNATI		
No. 2 Southern	$45.60	$30.35
Northern Basic	42.80	27.55
Southern Ohio No. 2	46.80	28.55
NEW YORK, tidewater delivery		
2X Virginia (silicon 2.25 to 2.75)	49.65	**32.40**
Southern No. 2 (silicon 2.25 to 2.75)	49.70	**35.20**
BIRMINGHAM		
No. 2 Foundry	42.00@44.00	**28.00**
PHILADELPHIA		
Eastern Pa	46.00@48.25*	30.65*
Virginia No. 2	45.00*	**32.10***
Basic	44.50†	30.90†
Grey Forge	43.50*	29.90*
CHICAGO		
No. 2 Foundry Local	**45.00**	26.75
No. 2 Foundry Southern	**48.70**	28.00
PITTSBURGH, including freight charge from the Valley		
No. 2 Foundry Valley	45.65	28.15
Basic	44.40	27.15
Bessemer	44.90	29.35
MONTREAL		
Silicon 2.25 to 2.75%	43.25	.....

* F. o. b. furnace. † Delivered.

RAILWAY SUPPLIES

STEEL RAILS—The following quotations are per ton f. o. b. Pittsburgh and Chicago for carload or larger lots. For less than carload lots 5c. per 100 lb. is charged extra:

	Pittsburgh		Chicago	
	Current	One Year Ago	Current	One Year Ago
Standard bessemer rails	$45.00 @$60.00	$45.00	$45.00@$55.00	$45.00
Standard openhearth rails	47.00 @ **62.00**	47.00	47.00@ 57.00	47.00
Light rails, 8 to 10 lb.	50.00 @ 55.00	2.585*	2.585*@3.75	2.835*
Light rails, 12 to 14 lb.	**50.00** @ *55.00*	2.54*	2.54* @3.75	2.79*
Light rails, 25 to 45 lb.	**50.00** @ *55.00*	2.45*	2.45* @3.75	2.70*

* Per 100 lb.

RAILWAY TIES—For fair-sized orders, the following prices per tie hold:

		7 In. x 9 In. by 8 Ft. 6 In.	6 In. x 8 In. by 8½ Ft.
Chicago	Plain	$2.00	$2.25
Chicago	Creosoted	2.25	2.50
San Francisco	Douglas Fir—Green	1.35	.96
San Francisco	Douglas Fir—Creosoted	2.70	1.92

Prices per tie at Missouri mills; St. Louis prices about 25c. higher:

Untreated A Grade White Oak 6x8x8		Untreated A Grade Red Oak 6x8x8	
No. 1	$0.70	No. 1	**$0.55**
No. 2	.80	No. 2	.65
No. 3	.90	No. 3	.75
No. 4	.98		
7x9x8 white oak			1.05
7x9x8 red oak (No. 4)	**$0.80**	No. 5	.87

Note.—Add 36c. each for treatment.

TRACK SUPPLIES—The following prices are base per 100 lb. f.o.b. Pittsburgh for carload lots, together with the warehouse prices at the places named:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago	St. Louis	San Francisco
Standard spikes, $\frac{9}{16}$-in. and larger	$4.25@4.25	$3.35	$3.62@4.25	$5.34	$7.75
Track bolts	6.00@6.50	4.35	4.75@6.50	Premium	8.75
Standard section angle bars	3.00@4.00	3.00	2.75@3.75	Premium	5.30

PIPE

STEEL AND IRON—The following discounts are to jobbers for carload lots on the Pittsburgh basing card, discounts on steel pipe, applying as from January 14, 1920, and on iron pipe from January 7, 1920:

BUTT WELD

Inches	Black	Galv.	Inches	Black	Galv.
$\frac{1}{4}$ to 3	57 @54	44@41½	$\frac{1}{4}$ to 1½	34½@24½	18½@ 8
			2 and 2½	33½	17½

LAP WELD

2	50½@47	38@34½	2	28½@20½	14½@ 6½
2½ to 6	53½@50	41@37½	2½ to 6	30½@22½	17½@ 9½
7 to 12	50½@47	37@33½	7 to 12	27½@19½	14½@ 6½
13 and 14	41 @37½	.....			
15	38 @35	.....			

BUTT-WELD, EXTRA STRONG, PLAIN ENDS

$\frac{1}{4}$ to 1½	55½@52	39½	$\frac{1}{4}$ to 1½	34½@24½	19½@ 9½
2 to 3	56½@53	44@40½	2 and 2½	34½@24½	19½@ 9½

LAP WELD, EXTRA STRONG, PLAIN ENDS

2	48½@45	37@33½	2	29½@21½	16½@ 8½
2½ to 4	51½@48	40@36½	2½ to 4	31½@23½	19½@11½
4½ to 6	50½@47	39@35½	4½ to 6	30½@22½	18½@10½
7 to 8	46½@43	33@29½	7 to 8	22½@14½	10½@ 2½
9 to 12	41½@38	28@24½	9 to 12	17½@ 9½	5½@ 5½

STEEL—From warehouses at the places named the following discounts hold for steel pipe:

	Black New York	Black Chicago	Black St. Louis
¾ to 3 in. butt welded	40%	54@40%	45%
2½ to 6 in. lap welded	35%	50@40%	41½%

	Galvanized New York	Galvanized Chicago	Galvanized St. Louis
¼ to 3 in. butt welded	24%	40½@30%	30½%
2½ to 6 in. lap welded	20%	37½%@27½	27½%

Malleable fittings, Class B and C, from New York stock sell at + 32% list prices. Cast iron, standard sizes, net.

CAST-IRON PIPE—The following are prices per net ton for carload lots:

Size, In.	New York Current	New York One Month Ago	New York One Year Ago	Chicago	St. Louis	San Francisco
4 in.	$79.30	$79.30	$55.30	$78.80	$78.00	$97.55
6 in. and over	76.30	76.30	52.30	75.80	75.00	94.55*

Gas pipe and 16-ft. lengths are $2 per ton extra.

CLAY DRAIN TILE—The following prices are per 1000 lin.ft.:

Size, In.	New York Current	New York One Year Ago	St. Louis	Chicago	San Francisco	Dallas
3	$42.50	$35.00	$60.00	$60.00	.....	$33.44
4	60.00	51.00	60.00	80.00	$45.00	50.16
5	85.00	65.00	.....	100.00	65.00	62.70
6	110.00	90.00	110.00	120.00	90.00	83.60
8	175.00	130.00	195.00	180.00	150.00	133.76

SEWER PIPE—The following prices are in cents per foot for carload lots:

Size, In.	New York Current Delivered	New York Year Ago Not Del.	St. Louis	Chicago	San Francisco	Dallas
3	$0.19	$0.081	.....	$0.15	$12.75	$0.175
4	.19	.081	.....	.15	17.00	.175
5	.29	.1215	.....	.225	21.25	.245
6	.29	.1215	$0.1855	.225	24.50	.245
8	.45	.169	.265	.35	38.25	.35
10	.67	.283	.371	.525	.51	.....
12	.86	.365	.477	.625	.68	.63
15	1.30	.480	.715	.90	1.10	.....
18	1.88	.675	.935	1.25	1.425	.....
20	2.25	.81	1.15	1.50	1.90	.....
22	3.00	1.08	.....	2.00	.....	.....
24	8.38	1.215	1.65	2.25	2.375	3.10
27	....	2.015	2.45	3.50	2.975	.....
30	....	2.232	2.95	4.00	3.40	.....
33	....	2.79	3.70	4.75	.....	.....
36	....	3.18	4.00	5.50	.....	5.60
	3	5	8	12	24	36
Boston	$0.18	$0.27	$0.42	$0.81	$2.70	$6.86¾
Minneapolis	.125	.167	.29	59	2.09	4.69
Denver	Quotations withdrawn					
Seattle	.....	.....	.3850	68	.....	2.375
Kansas City	No prices obtainable					
Los Angeles	.0975*	.1525*	.27	.48	.60*	.....
New Orleans	35 per cent off					
Cincinnati	53 per cent off					38%
Atlanta	.....	.....	.34	.55	2.00	.....
Montreal	58 per cent. off					
Detroit	52 per cent. off				50 per cent. off	
Baltimore delivered	.231	.3465	.539	1.0395	3.465	....

* 4-in., 6-in., 30-in. respectively.

ROAD AND PAVING MATERIALS

ROAD OILS—Following are prices per gallon in tank cars 8000 gal. minimum f.o.b. place named:

	Current	One Month Ago
New York, 45–65% asphalt (at terminal)	$0.13*	$0.13
New York, liquid asphalt (" ")	.13*	.13
New York, binder (" ")	.14*	.14
New York, flux (" ")	.15*	.15
St. Louis, 40% asphalt	.10*	.10
Chicago, 40-50% asphalt	.08	.08
Chicago, 60-70% asphalt	.08½	.085
Dallas, 40–50% asphalt	.07	.07
Dallas, 60–70% asphalt	.08	.08
Dallas, 75–90% asphalt	.10	.10
San Francisco, binder, per ton	13.00	....

*Note—Quotations nominal in New York. Scarcity in road oils.

ASPHALTUM—Price per ton in packages (350-lb. bbls. or 425-lb. drums), and in bulk in carload lots:

	Package	Bulk
New York (Bayonne, N. J.)	$35.00	$30.00
Boston	42.42	....
Chicago	30.90	23.40
San Francisco	19.00	13.00
Dallas	35.00	31.00
Seattle	25.00	....
Denver	.....	35.00
Minneapolis	30.00	....
Kansas City	40.00	32.00
Atlanta	25.00	20.80
St. Louis	29.40	23.90
Baltimore	43.00	.....
Los Angeles	21.15	.....
Montreal	.....	37.00
Detroit	49.00	42.25

PAVING STONE—

New York	5-in. granite	No quotations	
Chicago	About 4x8x4 dressed	$3.25	sq.yd.
	About 4x8x4 common	2.90	sq.yd.
San Francisco	Basalt block 4x7x8	65.00	per M
Kansas City	Granite	3.65	sq.yd.
Boston	5-in. granite	110.00	per M
Atlanta	Granite	2.00	sq.yd.
Detroit	Granite, 26½ blocks per sq. yd.	2.85	sq.yd.
Baltimore	Granite	2.40	sq.yd.
Montreal	Granite	5.90	sq.yd.
New Orleans	Granite	3.90	sq.yd.
Cincinnati	Granite	3.25	sq.yd.

FLAGGING—

New York	Bronx	$0.24	sq.ft.
	Manhattan	.25	sq.ft.
	Queens, 5 ft.	.26	sq.ft.
	6x20-in. cross-walk	.95	lin.ft.
Chicago	18 in. wide	.70	lin.ft.

CURBING—Bluestone per lineal foot, in New York, costs 70c. for 5x16 in., 80c. for 5x18 in.

WOOD BLOCK PAVING—

	Size of Block	Treatment	Per Sq.Yd.
New York	3½	16	$3.98
New York	4	16	4.33
Boston	3	16	3.00
Chicago	4	16	3.75@4.00
Chicago	3½	16	3.25@3.50
St. Louis	3½	16	2.90
St. Louis	4	16	3.32
Seattle	4	16	Off market
Kansas City	4	16	3.00
Minneapolis	3½	16	3.20
Atlanta	3½	16	2.30
New Orleans	4	16	3.63
Dallas	4	18	3.57
Baltimore	3½	16	3.60
Montreal	4	16	4.60
Detroit	3½	16	3.40

CONSTRUCTION MATERIALS

SAND AND GRAVEL—Price for cargo or carload lots is as follows, per cu.yd.:

	Gravel 1½ In. Current	Gravel 1½ In. One Yr. Ago	Gravel ¾ In. Current	Gravel ¾ In. One Yr. Ago	Sand Current	Sand One Yr. Ago
New York	$3.00	$2.00	$3.00	$2.00	$1.50	$1.25
Denver	1.40	1.60	1.80	1.60	1.00	1.25
Chicago	2.15	1.35	2.15	1.35	2.15	1.35
Kansas City	3.25	2.50	3.75	3.00	1.25†	1.00
St. Louis	1.50	1.78	1.55	1.82	1.55*	1.68
Seattle, per ton	1.25	1.25	1.25	1.25	1.25	1.25
Dallas	2.50	2.00	2.50	2.00	2.00	1.50
Minneapolis	2.00	1.25	1.35	1.35	1.25	.60
Cincinnati	....	....	1.50	....	1.45	1.35
San Francisco	1.50	1.15	1.50	1.15	1.50	1.00
Boston	3.50	1.60‡	3.00	1.65‡	2.75	....
New Orleans	3.00	2.40	....	2.40	1.40	1.20
Los Angeles	1.25	1.02	1.25	1.02	1.15	.70
Atlanta, per ton	2.25	2.00	2.25	....	1.15	1.10
Detroit	2.50*	1.90	2.50*	1.90	2.50*	1.80
Baltimore	1.40‡	....	1.60‡	1.60	.70	....
Montreal, per ton	1.45*	1.20	....	....	1.30‡	1.10

* Fine white sand, Pacific and Ottawa, per ton $6.
† Kaw River sand is $1.75 per yd. ‡ per ton.

CRUSHED STONE—Price for cargo or carload lots is as follows, per cu.yd.:

	1½ In. Current	1½ In. One Year Ago	¾ In. Current	¾ In. One Year Ago
New York	$1.90@2.00	$1.65@1.75	$2.15	$1.75@1.85
Chicago	2.35	1.30	2.50	1.30
St. Louis	1.90	1.35	1.90	1.35
Dallas	3.50	2.25	3.50	2.25
San Francisco	1.50	1.15	1.50	1.15
Boston	3.00*(del)	3.00	3.00 (del)	3.00
Minneapolis	2.25†	1.15	2.50	1.25
Denver	3.75	....	3.75	1.60
Kansas City	2.35	1.90	2.35	2.00
Seattle (Del.)	3.50	1.50	3.50	1.50
Cincinnati	....	....	1.65	....
Atlanta	3.10*	2.35	....	2.60
Los Angeles	1.60*	1.12	1.70*	1.12
Detroit	2.00*	1.20	2.00*	1.20
Baltimore	1.60*	....	2.00*	....
Montreal	2.30*	1.90	2.55*	2.15

* Per ton. † Limestone; traprock, $1.60 and $1.80 per ton for 1½ and ¾-in.

CRUSHED SLAG—Price of crushed slag per net ton in carload lots:

	1½-In.	1½-In.	Roofing	Sand
Lebanon or Bethlehem, Pa	$1.00	$1.00	$2.50	$0.90
Easton, Pa	1.20	1.20	3.00	1.10
Buffalo, N. Y	1.25	1.00	2.00	1.00
East Canaan, Conn	1.25	1.35	3.50	1.10
Birmingham, Ala	1.25	1.25	2.05	1.00
Toledo, Ohio	1.50	1.50	....	....

LIME—Warehouse prices:

	Hydrated per Ton Finished	Hydrated per Ton Common	Lump per 200-Lb. Barrel Finished	Lump per 200-Lb. Barrel Common
New York	$19.50	$18.50	$3.50*-at plant-$3.30*	
Kansas City	27.20	26.20	2.50	2.40
Chicago	....	....	....	1.75
St. Louis	25.00	21.00	....	2.50
Boston	27.50	25.25	3.70†	3.40†
Dallas	....	25.00	....	2.50†
Cincinnati	17.20	16.20	....	13.20‡
San Francisco	23.50	19.50	....	2.25
Minneapolis	24.00	19.00	2.90†	2.30†
Denver	30.00	....	.95 (bu.)	.95 (bu.)
Detroit	20.00	18.00	1.80†	1.60†
Seattle	30.00	....	....	1.85†
Los Angeles	2.75†	2.20†	2.75†	2.00†
Baltimore	23.00	....	....	12.50
Montreal	25.00	25.00	15.00‡	15.00‡
Atlanta	22.50	....	....	....
New Orleans	16.00	....	2.35	....

* 300-lb. barrels. †Per 180-lb. barrel. ‡ Per ton.

NOTE—Refund of 10c. per barrel with 25c per ton off on hydrated.

NATURAL CEMENT—Price to dealers for 500 bbl. or over, f. o. b., exclusive of bags:

	Current	One Year Ago
Minneapolis (Austin)	$1.50	$1.45
Kansas City (Ft. Scott)	1.60	1.40
New Orleans	3.36	2.52
Atlanta (Magnolia)	1.90	....
Cincinnati (Louisville)	2.85	1.50
Boston (Rosedale)	2.35	....

PORTLAND CEMENT—Current prices are for barrels in carload lots, *without* bags, to contractors:

	Current Without Bags	One Month Ago Without Bags	One Year Ago Without Bags
New York (del.)	$4.10*	$3.80	$2.30
Jersey City (del.)	3.22	2.97	2.27
Boston	3.32	2.60	2.42
Chicago	2.15	2.15	2.00
Pittsburgh	2.20	2.20	2.05
Cleveland	2.42	2.42	2.32
Detroit	3.00	3.00	2.08
Indianapolis	2.42	2.42	2.27
Toledo	2.28	2.28	2.12
Milwaukee	2.20	2.20	2.11
Duluth	2.20	2.20	2.10
Peoria	2.32	2.32	2.12
Cedar Rapids	2.40	2.40	2.18
Davenport	2.36	2.36	2.14
St. Louis	2.85	2.65	2.20
San Francisco	2.88	2.88	2.43
New Orleans	3.24	3.52	2.36
Minneapolis	2.42	2.22	2.20
Denver	3.80	2.82	2.67
Kansas City	2.76	2.76	2.26
Seattle	3.03	3.03	2.53
Dallas	2.15	2.15	2.03
Atlanta	2.70	2.70	2.50
Cincinnati	2.85	2.85	2.90
Los Angeles	3.10	3.10	....
Baltimore (del)	3.28†	3.85	....
Montreal (including bags)	3.00	3.00†	....
Detroit	4.00	....	....

NOTE—Bag charge is generally 2x15c. each. *Delivered Manhattan, The Bronx or Brooklyn; bags 25c. each. †Including bags.

TRIANGLE MESH—Price per 100 sq.ft. in carload lots:

PLAIN 4-INCH by 4-INCH MESH

Style Number	Sectional Area Square Inches per Ft. Width	Pittsburgh	New York*	Chicago	St. Louis	Dallas	San Francisco
032	0.032	$0.92	$1.16	$0.98	$0.99	$1.13	$1.32
049	0.049	1.18	1.48	1.26	1.26	1.43	1.67
068	0.068	1.44	1.86	1.53	1.56	1.79	2.06
093	0.093	1.85	2.39	1.97	2.00	2.41	2.65
126	0.126	2.28	3.02	2.43	2.47	2.92	3.28
153	0.153	2.72	3.59	2.90	2.95	3.48	3.93
180	0.180	3.12	4.13	3.33	3.39	3.99	....
245	0.245	4.12	5.44	4.40	4.47	5.27	....
287	0.287	4.76	6.29	5.08	5.16	6.10	6.86
336	0.336	5.52	7.30	5.89	5.99	7.06	....
395	0.395	6.40	8.45	6.83	6.94	8.19	....
PAVING							
036P	0.036	$0.71	$0.92	$0.76	$1.77	$0.80	....
053P	0.053	1.00	1.28	1.06	1.08	1.12	....
072P	0.072	1.26	1.66	1.34	1.37	1.46	....
097P	0.097	1.62	2.12	1.73	1.76	1.88	....
049R	0.049	1.00	1.28	1.06	1.08	1.12	....
067R	0.067	1.26	1.65	1.34	1.37	1.46	....
089R	0.089	1.62	3.11	1.73	1.76	1.88	....

Made in 16-, 20-, 24-, 28-, 32-, 36-, 40-, 44-, 48-, 52- and 56-in. width in rolls 150-, 200- and 300-ft. lengths. Galvanized is about 10% higher.

‡Note—Practically no triangle mesh in New York market

EXPANDED METAL LATH—Prices in carload lots per 100 yd. for painted are as follows:

Gage	Weight	New York‡ Current Carloads	New York‡ Less Carloads	Chicago	St. Louis	San Francisco	Dallas
27	233	$32.10	$32.20*	$33.60†	$35.00	$36.00	$32.75
26	250	33.45	33.65*	35.20†	36.00	.....	34.50
25	300	34.90	35.00*	36.90†	.....	39.00	36.75
24	340	36.50	36.65*	40.00†	39.00	44.00	39.25
22	450	39.60	39.80*	45.10†	.....	.....	43.30

* Delivered on job.
†Galvanized is $8 per 100 yd., additional.
*Note—Practically no metal lath in New York market.

BARS, CONCRETE REINFORCING—Following quotations are per 100 lb.:

ROLLED FROM BILLETS

In.	Mill Pittsburgh	New York Current	Chicago	Dallas	St. Louis	San Francisco
¾ and larger	$2.35@$3.75	$3.52@$5.00	$3.37@$3.90	$3.87	$4.75	$5.30
⅝	2.40@3.75	3.57@5.00	3.42@4.00	3.92	4.80	5.35
½	2.45@3.75	3.62@5.00	3.47@4.05	3.97	4.95	5.40
⅜	2.60@3.75	3.77@5.00	3.62@4.20	4.12	5.00	5.55
¼	2.85@3.75	4.02@5.00	4.07@4.60	4.57	5.05	5.80

Twisted bars cut to length take extra of 29½c. per 100 lb.

ROLLED FROM RAILS

	Chicago	St. Louis	Dallas		Chicago	St. Louis	Dallas
¾ in. and larger	$3.75	$3.50	$4.25	⅝	$4.00	$3.75	.....
⅝	3.80	3.55	4.30	½	4.25		
½	2.85	3.60	.....				

BRICK—To contractors price per 1000 in cargo or carload lots is as follows:

	Common Current	Common One Month Ago	Common One Year Ago	Paving Block 3-inch	Paving Block 4-inch
New York	$25.00	$25.00	$15.00	$48.50*	$52.50*
New Orleans	25.00	24.50	17.50	.....	.....
Chicago	16.00	15.00	12.00	.....	39.51
St. Louis, salmon	16.00†	16.00	10.00	.....	37.00
Denver	17.00	17.00	13.00	.....	.....
Dallas	24.00	24.00	18.00	.....	.....
San Francisco	18.00	18.00	12.50	.....	44.38
Los Angeles	13.50	13.50	12.50	.....	.....
Boston	32.00	32.00	18.00	51.00	55.00
Minneapolis	24@26	21.00	13.00	.....	.....
Kansas City	22.00	22.00	15.00	.....	.....
Seattle	15.00	15.00	15.00	44.50	53.50
Cincinnati	24.00	24.00	16.00	.....	.....
Montreal (del.)	16.00	16.00	15.00	.....	.....
Detroit	23.00	23.00	19.00	40.00	48.00
Baltimore (del.)	20.00-25.00	22.50	18.00	40.00	44.00

*For paving blocks 3½x8½x3 and 3½x8½x4 respectively. †Hard brick $20.50 in St. Louis.

HOLLOW TILE—Price per block in carload lots for hollow building tile:

	New York Current on Trucks	New York One Year Ago	Chicago	St. Louis	San Francisco	Factory Perth Amboy N. J.
4x12x12	.....	$0.11475	$0.1516	None	$0.1425	.....
6x12x12	.....	.153	.2274	"	.1800	.....
8x12x12	.....	.204	.2728	"	.2525	.....
10x12x12	.....	.....	.3411	"	.....	.....
12x12x12	.....	.....	.4093	"	.....	.....

Note—New York and Perth Amboy quotations will be given next month.

	4x12x12	8x12x12	12x12x12
Boston	$0.156	$0.192	$0.51
Minneapolis	.1152	.2016	.3168
Cincinnati	.125	.2186	.3286
Kansas City	No prices obtainable		
Denver	Quotations withdrawn		
Seattle	.09	.175	.30
Atlanta	.115	.19	.28
Los Angeles	.10	.175	....
New Orleans	.23	.28	.30
Detroit	20 per cent. off list		
Montreal	.22	.30	.36
Baltimore	.275	.485	.62

STRUCTURAL MATERIAL—Following are base prices f.o.b. mill, Pittsburgh, together with quotations per 100 lb. from warehouses at places named:

	Mill Pittsburgh	New York Current	New York 1 Yr. Ago	St. Louis	Chicago	San Francisco
Beams, 3 to 15 in.	$2.45@$3.10	$4.47	$3.47	$4.04	$3.97	$5.85
Channels, 3 to 15 in.	2.45@ 3.10	4.47	3.47	4.04	3.97	5.85
Angles, 3 to 6 in., ¼ in. thick	2.45@ 3.10	4.47	3.47	4.04	3.97	5.85
Tees, 3 in. and larger	2.45@ 3.75	4.52	3.52	4.09	4.02	5.85
Plates	2.65@ 4.00	4.67	3.67	4.24	4.17	6.30

RIVETS—The following quotations are per 100 lb.:

STRUCTURAL	Mill Pittsburgh	New York Current	New York One Yr. Ago	Warehouse Chicago	Warehouse St. Louis	Warehouse San Francisco	Warehouse Dallas
¾ in. and larger	$4.50	$6.00	$4.72	$5.62	$5.69	$6.65	$7.50
CONE HEAD BOILER							
¾ in. and larger	4.60	7.10	4.82	5.72	5.79	6.75	7.50
⅝ and 11/16	4.75	7.25	4.97	5.87	5.94	7.00	7.50
½ and 9/16	5.00	7.50	5.32	6.22	6.19	7.25	7.75

Lengths shorter than 1 in. take an extra of 50c. Lengths between 1 in. and 2 in. take an extra of 25c.

NAILS—The following quotations are per keg from warehouse:

	Mill Pittsburgh	New York	Chicago	San Francisco	Dallas	Montreal
Wire	$3.25@$4.50	$8.50	$4.15	$6.00	$6.90	$4.95
Cut	....	10.00	5.85	8.50	6.40	5.00

PREPARED ROOFINGS—Standard grade rubbered surface, complete with nails and cement, costs per square as follows at manufacturing points:

	New York 1-Ply c.l.	New York 2-Ply l.c.l.	New York 3-Ply c.l.	Philadelphia 1-Ply c.l.	Philadelphia 2-Ply l.c.l.	Philadelphia 3-Ply c.l.
No. 1 grade	$4.50	$3.90	$3.55	$2.40	$2.90	$3.45
No. 2 grade	3.25	2.70	3.20	2.15	2.60	3.10

Slate-surfaced roofing (red and green) in rolls of 108 sq. ft. costs $4.25 per roll in carload lots and $4.50 for smaller quantities.

Shingles, red and green slate finish, cost $7.75 per square in carloads; $8.00 in smaller quantities, in Philadelphia.

ROOFING MATERIALS—Prices per ton f.o.b. New York and Chicago:

Tar felt (14 lb. per square of 100 sq. ft.) per roll	$3.50
Tar pitch (in 400-lb. bbl.) per 100 lb.	2.00
Asphalt pitch (in barrels) per ton	54.50
Asphalt felt (light) per ton	123.00
Asphalt felt (heavy) per ton	127.00

SHEETS—Quotations are in cents per pound in various cities from warehouse also the base quotations from mill:

Blue Annealed	Large Mill Lots Pittsburgh	St. Louis	Chicago	San Francisco	New York Current	New York One Yr. Ago
No. 10	$3.75@$7.00	$7.09	$7.02	$8.25	$6.62@$8.00	$4.57
No. 12	3.80@ 7.05	7.09	7.07	8.30	6.67@ 8.05	4.62
No. 14	3.85@ 7.10	7.09	7.12	8.35	6.22@ 8.10	4.67
No. 16	3.95@ 7.20	7.09	7.17	8.45	6.82@ 8.20	4.77
Black						
*Nos. 18 and 20	4.15@ 7.30	8.10	7.80	9.35	7.80@ 9.50	5.30
*Nos. 22 and 24	4.20@ 7.35	8.10	7.85	9.40	7.85@ 9.55	5.35
*No. 26	4.25@ 7.40	8.10	7.90	9.45	7.90@ 9.60	5.40
*No. 28	4.35@ 7.50	8.10	8.00	9.55	8.00@ 9.70	5.50
Galvanized						
No. 10	4.70@ 8.00	9.60	8.50	....	8.55@11.00	6.20
No. 12	4.80@ 8.10	9.60	8.60	10.10	8.65@11.00	6.25
No. 14	4.80@ 8.10	9.60	8.60	10.10	8.65@11.10	6.30
Nos. 18 and 20	5.10@ 8.40	9.60	8.90	10.40	8.90@11.40	6.60
Nos. 22 and 24	5.25@ 8.55	9.60	9.05	10.55	9.05@11.55	6.75
*No. 26	5.40@ 8.70	9.60	9.20	10.70	9.20@11.70	6.90
*No. 28	5.70@ 9.00	9.60	9.50	11.00	9.50@12.00	7.20

*For painted corrugated sheets add 30c. per 1000 lb. for 5 to 28 gage; 25c. for 19 to 24 gages; for galvanized corrugated sheets add 15c., all gages.

LINSEED OIL—These prices are per gallon:

	New York Current	New York One Year Ago	Chicago Current	Chicago One Year Ago
Raw in barrel (5 bbl.)	$1.53	$2.15	$1.95	$2.53
5-gal. cans	1.56*	2.28	2.15	2.73

*To this price must be added the cost of the cans (returnable), $2.25 for case of six.

WHITE AND RED LEAD—Base price per pound:

	Red Current Dry	Red Current In Oil	Red 1 Year Ago Dry	Red 1 Year Ago In Oil	White Current Dry and In Oil	White 1 Yr. Ago Dry and In Oil
100-lb. keg	15.50	17.00	13.00	14.50	15.50	13.00
25 and 50-lb. kegs	15.75	17.25	13.25	14.75	15.75	13.25
12½-lb. keg	16.00	17.50	13.50	15.00	16.00	13.50
5-lb. cans	18.50	20.00	15.00	16.50	18.50	15.00
1-lb. cans	20.50	22.00	16.00	17.50	20.50	16.00

500 lb. lots less 10% discount; 2000 lb. lots less 10-2½% discount.

LUMBER

San Francisco—Prices of rough Douglas fir No. 1 common, in more than carload lots:

	Lumber Prices in Yards at San Francisco: 6-8-12 and 14 Ft.	10-16-18 and 20 Ft.	22 and 24 Ft.	25 to 32 Ft.
3x3 and 4	$36.50	$37.00	$38.00	$40.00
3x6 and 8	37.50	38.00	39.00	41.00
4x4-6 and 8	38.00	39.00	40.00	42.00
3x10 and 12	38.00	39.00	40.00	42.00
3x14	38.50	39.50	40.50	42.50
4x10 and 12	38.00	39.00	40.00	42.00
4x14	39.00	40.00	41.00	43.00

	24 Ft. and Under	25 to 32 Ft.	33 to 40 Ft.
6x10	$37.50	$39.50	$40.50
6x14	39.00	41.00	41.50
8x10	37.50	39.50	40.50
8x14	39.00	41.00	41.50

New York, Chicago and St. Louis

	Southern Pine New York* 20 Ft. and Under	Southern Pine New York* 22-24 Ft.	Southern Pine Chicago 20 Ft. and Under	Southern Pine Chicago 22-24 Ft.	Yellow Pine St. Louis 20 Ft. and Under	Yellow Pine St. Louis 22-24 Ft.
3x 4 to 8x 8	$53.00	$54.00	$55.00	$55.00	$50.00	$51.00
3x10 to 10x10	57.00	58.00	59.00	60.00	55.00	56.00
3x12 to 12x12	65.00	66.00	63.00	64.00	57.50	58.50
3x14 to 14x14	70.00	71.00	68.00	69.00	65.00	66.00
3x16 to 16x16	75.00	76.00	74.00	75.00	67.50	68.50
3x18 to 18x18	85.00	86.00	79.00	80.00	72.50	73.50
4x20 to 20x20	90.00	91.00	.....	.....	.....	.....

* Prices from Lumbermen's Bureau.

Over 24 ft.—Add $1 for each additional 2 ft. in length up to 40 ft. for sizes 12 x 12 and under; for sizes over 12 x 12 add $2. For merchantable add $2 to sizes 10 x 10 and under. For prime add $2 to the price of merchantable for all sizes.

Other Cities

	8 x 8-In. x 20-Ft. and Under P.	8 x 8-In. x 20-Ft. and Under Fir	8 x 8-In. x 20-Ft. and Under Hemlock	8 x 8-In. x 20-Ft. and Under Spruce	12 x 12-In. 20 Ft. and Under P.	12 x 12-In. 20 Ft. and Under Fir
Boston	$68.00	$65.00	.....	$62.50	$80.00	$70.00
Kansas City	51.00	51.25	$51.25	51.25	60.00	51.25
Seattle	.....	34.00	.....	.....	.....	35.00
New Orleans	46.00	.....	.....	.....	54.00	.....
Atlanta	62.50	64.50	66.00	76.00	79.50	82.00
Baltimore	75.00	.....	.....	.....	87.50	.....
Cincinnati	45.00	50.00	50.00	.....	55.00	55.00
Montreal	80.00	80.00	65.00	75.00	73.00*	100.00
Los Angeles†	.....	57.00	.....	.....	.....	59.00
Detroit	67.00	.....	.....	.....	79.00	79.00
Denver	.....	43.75	.....	.....	.....	44.75

	1-In. Rough, 10 In. x 16 Ft. and Under P.	1-In. Rough, 10 In. x 16 Ft. and Under Fir	1-In. Rough, 10 In. x 16 Ft. and Under Hemlock	2-In. T. and Gr. 10 In. x 16 Ft. P.	2-In. T. and Gr. 10 In. x 16 Ft. Fir
Boston	$110.00	$102.00	$52.00	$100.00	.....
Kansas City	102.00	106.50	106.50	113.00	$112.75
Seattle	.....	37.50	.....	.....	38.50
New Orleans	.....	42.00	.....	46.00	.....
Atlanta	85.00	90.00	.....	77.50	87.50
Baltimore (box)	57.50@65	.....	.....	57.50@62.50	.....
Cincinnati	50.00	55.00	50.00	45.00	50.00
Montreal	75.00	75.00	66.00	78.00	78.00
Los Angeles	.....	58.00	.....	.....	.....
Detroit	50.00	.....	49.00	44.00	.....
Denver	.....	42.75	.....	.....	40.75

* Montreal—Up to 32 ft.; over which, $3.00 per M. increase up to 30 ft.

† Base price, 2 x 3's and 2 x 4's, 8 to 14 ft., is $54.00

Detroit—Dimension stuff ranges from $60 to $68. See "ups and downs in the market."

Minneapolis—Fir 1-in. x 8@10 in., 8@20 ft., No. 1 common, $42; No. 2, $36.50. Y. P., 2 x 4, No. 1, $41.50; 2 x 6 and 2 x 8, $41; 2 x 10, $42.50. Fir, 12 x 12 x 32 ft., rough, $46.50.

FREIGHT RATES

On finished steel products in the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, flat sheets (except planished), chains, etc., the following freight rates are effective in cents per 100 lb.:

Boston	$0.30	New Orleans	$0.38½
Buffalo	.17	New York	.27
Chicago	.27	Pacific Coast (all rail)	1.25*
Cincinnati	.23	Philadelphia	.24½
Cleveland	.17	St. Louis	.24
Denver	.99	St. Paul	.49½
Kansas City	.59	Detroit	.33
		Baltimore	.27½

Note—Add 3% transportation tax. * Minimum carload, 50,000 lb.

CONTRACTORS' SUPPLIES

STEEL SHEET PILING—The following price is base per 100 lb. f. o. b. Pittsburgh, with a comparison of a month and a year ago:

Current	One Month Ago	One Year Ago
$2.55@$3.65	$2.55@3.65	$2.25

WIRE ROPE—Discounts from list price on regular grades of bright and galvanized are as follows:

	New York and St. Louis
Hercules red strand, all constructions	20%
Patent flattened strand, special and cast steel	20%
Patent flattened strand, iron rope	5%
Plow steel round strand rope	30%
Special steel round strand rope	30%
Cast steel round strand rope	22½%
Iron strand and iron tiller	5%
Galvanized iron rigging and guy rope	+12%

San Francisco: Galvanized Iron Rigging and Guy Ropes, +17½%; Bright Plow, 25% off.

Chicago, +12½ on galvanized, 30 off on bright.

MANILA ROPE—For rope smaller than ½-in. the price is ½ to 2c. extra; while for quantities amounting to less than 600 ft. there is an extra charge of 1c. The number of feet per pound for the various sizes is as follows: ½-in., 8 ft., ⅝-in., 6; ¾-in., 4½; 1-in., 3½; 1¼-in., 2 ft. 10 in.; 1½-in., 2 ft. 4 in. Following is price per pound for ½-in. and larger, in 1200-ft. coils:

Boston	$0.30½	Kansas City	0.30½
New York	.29	New Orleans	$0.28½
Chicago	.27½	Los Angeles	.31
Minneapolis	.29½	Seattle	.28
San Francisco	.27	St. Louis	.26½
Atlanta	.29½	Montreal	.35½
Denver	.30	Detroit	.26
Cincinnati	.35	Baltimore	.27½

EXPLOSIVES—Price per pound of dynamite in small lots and price per 25 lb keg for black powder.

	Low Freezing 20%	Gelatin 40%	Gelatin 60%	Gelatin 80%	Black Powder
New York	.....	$0.31½	$0.34½	.....	$2.30
Boston	.....	.28	.31	$.295	2.40
Kansas City	.2475	.27	.30	.34	2.40
Seattle	.18	.21½	.24½	.29	2.45
Chicago	.2175	.2525	.2975	.34	2.45
Minneapolis	.2067	.2476	.2782	....	2.80
St. Louis	.2175	.26	.285	.295	1.90
Denver	.2175	.2575	.2875	.33	2.70
Dallas	.265*	.275	.3025	....	2.60
Los Angeles	.22	.27	.31	.....	2.95
Atlanta	.22	.245	.265	.....	2.55
Baltimore	No shipments or quotations				
Cincinnati	.2275	.2525	.2725	.....	2.30
Montreal	.30	.32	.37	.38	4.10
New Orleans	.1975	.2225	.2425	.....	

* 30 Per Cent.

POLES—For plain pine poles, delivered New York, the price is as follows:

10-in. butts, 5-in. tops, length 20-30 ft.	$9.00
12-in. butts, 6-in. tops, length 30-40 ft.	11.50
12-in. butts, 6-in. tops, length 41-50 ft.	12.50
14-in. butts, 6-in. tops, length 51-60 ft.	21.00
14-in. butts, 6-in. tops, length 61-71 ft.	25.50

	Dallas
6-in. x 20-ft.	$4.60
6-in. x 30-ft.	7.10
8-in. x 30-ft.	8.45
8-in. x 35-ft.	10.38

OLD MATERIAL—The prices following are per gross ton paid to dealers and producers in New York. In Chicago and St. Louis the quotations are per net ton and cover delivery at the buyer's works, including freight transfer charges.

	New York	Chicago	St. Louis
No. 1 railroad wrought	$30.00	$28.00	$28.00
Stove plate	24.50	28.00	30.50
No. 1 machinery cast	39.00	36.00	37.00
Machine shop turnings	14.50	10.00	13.00
Cast borings	17.00	13.00	15.50
Railroad malleable cast	30.00	27.00	27.00
Re-rolling rails	35.50	37.00	33.00
Relaying rails	54.00	52.50@57.50	50@55

SHIP SPIKES—Current prices per 100 lb.

In.	San Francisco Galv.	San Francisco Black	Seattle Black
½	$9.20	$8.50	$8.55
⅝	8.75	6.75	8.25
¾	8.60	6.60	8.30

Pittsburgh base, $4.50 per 100 lb.

LABOR RATES AND CONDITIONS THROUGHOUT THE COUNTRY

S means scarce; E, enough; P, plentiful

Cities	Bricklayers	Carpenters	Hoisting Engineers	Hod Carriers	Pile Drivers	Structural Iron Workers	Common Labor	Remarks
Atlanta	$0.90S	$0.60-75P	$0.50-65P	$.40-.45P	$0.60-.65	$0.75	$0.35S	Atlanta—Great activity in construction. Common labor scarce.
Baltimore	1.00E	.80-90E	.87½E	.46-.54E	.74P	1.00E	.35-.45E	Baltimore—Satisfactory supply of labor.
Boston	1.10E	1.00E	1.15@1.25E	.75E	1.25E	1.15@1.25E	.67½@70E	Boston—Labor supply sufficient.
Cincinnati	1.25S	.90E	.75E	.70E	.....	.87½E	.60S	Cincinnati—Common labor scarce.
Chicago	1.25	1.25	.....	.....	.....	1.25	1.00	Chicago—Labor plentiful but independent. Contractors report increased efficiency.
Cleveland	1.00S	.90S	1.00E	.57½E	.80E	1.00E	.57½E	
Dallas	1.25S	1-1.25S	1.00E	.60E	1.00E	1.25S	44-.60S	Dallas—Common labor very scarce.
Denver	1.25E	1.16½E	1.16½@1.18¾E	.75@81¼E	.....	1.15½E	.50@.56½	Denver—No strikes pending.
Detroit	1.25P	1.00P	1.10P	.70P	1.10P	1.25P	.65P	Detroit—All classes of labor is plentiful owing to slackness in construction because of lack of material. Practically no cement in car lots. Automobile and allied shops are absorbing surplus labor at higher rates than paid on construction work.
Kansas City	1.12½	1.00	1.00	.90	1.00	1.10	.75	
Los Angeles	1.25P	.87½P	.87½P	1.00P	.87½P	.87½P	.56½-.62½E	Los Angeles—Rates shown are union; non-union a little less; but union scale prevails generally.
Minneapolis	1.25	1.00P	1.00	.75	.....	1.00	.60	Minneapolis—Increase in common-labor wage expected in a few weeks.
Montreal	1.00	.80-.85	.65S	.50@.60S	.50	.50-.65	.45-.55P	Montreal—All strikes settled.
New Orleans	.85P	.95P	1.00P	.50P	1.00P	1.00P	.40P	New Orleans—All labor plentiful.
New York	1.25	1.12½	1.25	.87½	1.12½	1.12½	.75-.80	New York—Agreement of Nov. 20, 1919, was modified as shown, effective May 1, 1920. Excavators, 75c.; Concrete workers, 81¼c.
Pittsburgh	1.50	1.20	.90S	.80S	1.00	1.25S	.50S	Pittsburgh—Indications are that all trades will be back at work soon.
St. Louis	1.25	1.25	1.12½-1.25	.70	1.00-1.25	1.25	.52-.75	St. Louis—Bricklayers' helpers receive 80c.; Carpenters' helpers, 67½c.; as to hoisting engineers the rates are $1.12½ for one drum, $1.25 for two drums, and $1.21½ for road roller. Pile drivers receive $1.00 on wood and concrete, $1.25 on steel. Unskilled labor is classified as follows: Common, 52c.; construction, 67½c.; pipe laying, 75c.; track, 53c.
San Francisco	1.25E	1.06¼E	1.12½E	.93¾E	1.06¼E	1.12½E	.81¼E	San Francisco—All lines busy. Common labor quotation is for union labor
Seattle	1.12	.93½	.94	.75-.80	.90	1.00	.75S	

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 12	Hankinson, N. D.	Aug. 5
Aug. 12	Fayette Mo.	Aug. 5
Aug. 23	Middletown, N. Y. Adv. Aug. 5.	Aug. 5
Aug. 24	Cedarburg, Wis.	Aug. 5
Aug. 25	Marcy, N. Y.	July 29

SEWERS

Aug. 9	Pontiac, Mich.	July 29
Aug. 10	St. Louis, Mo.	July 29
Aug. 10	Jersey City N. J.	Aug. 5
Aug. 10	Darlington, Wis	July 29
Aug. 11	Joliette, Que.	July 22
Aug. 12	Rush City, Minn.	July 29
Aug. 12	Hankinson, N. D.	Aug. 5
Aug. 13	Bedford Hills, N. Y. Adv. Aug. 5.	Aug. 5
Aug. 13	Kilbourn, Wis.	Aug. 5
Aug. 16	Lebanon, Pa. Adv. Aug. 5.	Aug. 5
Aug. 17	Armour, S. D.	July 29
Aug. 23	Allentown, Pa. Adv. Aug. 5.	Aug. 5
Aug. 25	Reading, Pa. Adv. Aug. 5.	Aug. 5

BRIDGES

Aug. 10	Pottsgrove, Pa.	Aug. 5
Aug. 10	Glenmore, N. J.	Aug. 5
Aug. 10	Lumkin, Ga.	Aug. 5
Aug. 10	Oregon	Aug. 5
Aug. 10	Shelby, Mont.	Aug. 5
Aug. 11	Illinois	Aug. 5
Aug. 11	Dungannon, Va.	July 29
Aug. 14	Junction City, Kan.	Aug. 5
Aug. 17	Rochester, N. Y. Adv. July 22 to Aug. 5.	July 22
Aug. 18	Augusta, Me. Adv. Aug. 5.	Aug. 5
Aug. 20	Missouri	Aug. 5
Aug. 20	Bristol, Conn.	July 15
Aug. 23	Claxton, Ga.	July 22
Aug. 23	Bonham Tex.	Aug. 5
Aug. 24	Harrisburg, Pa. July 29 and Aug. 5.	July 29
Aug. 25	North Carolina Adv. Aug. 5.	Aug. 5
Aug. 25	Powys (Trout Run P. O.), Pa.	Aug. 5
Aug. 25	Reading Pa. Adv. Aug. 5.	Aug. 5
Sept. 6	Nenana, Alaska	Aug. 5

STREETS AND ROADS

Aug. 9	South Pasadena, Cal.	July 22
Aug. 9	Maryland Adv. July 22 to Aug. 5.	July 29
Aug. 9	Red Lodge, Mont.	Aug. 5
Aug. 9	Maryland Adv. Aug. 5.	Aug. 5
Aug. 9	New Madrid, Mo.	Aug. 5
Aug. 10	New York, N. Y.	Aug. 5
Aug. 10	Ludington, Mich.	July 29
Aug. 10	Hastings, Minn.	July 29
Aug. 10	Princeton, W. Va.	July 29
Aug. 10	St. Louis, Mo.	July 22
Aug. 10	New York, N. Y. Adv. July 29 and Aug. 5.	Aug. 5
Aug. 10	West Orange, N. J. Adv. Aug. 5.	Aug. 5
Aug. 10	Newark, N. J.	Aug. 5
Aug. 10	Knoxville, Ia.	Aug. 5
Aug. 10	Oklahoma	Aug. 5
Aug. 10	Forsyth, Mont.	Aug. 5
Aug. 10	Groesbech, Tex.	Aug. 5
Aug. 10	Oregon	Aug. 5
Aug. 11	Summerville, Ga.	Aug. 5
Aug. 11	Union, S. C.	Aug. 5
Aug. 11	Laurens, S. C.	Aug. 5
Aug. 11	Princeton, W. Va.	Aug. 5
Aug. 11	Bloomfield, Ia.	July 29
Aug. 11	Belvidere, N. J. Adv. July 22 to Aug. 5.	July 29
Aug. 11	Dayton, O.	Aug. 5
Aug. 11	Baltimore, Md.	Aug. 5
Aug. 11	Illinois	Aug. 5
Aug. 11	Brooklyn, N. Y.	Aug. 5
Aug. 12	New York, N. Y.	Aug. 5
Aug. 12	Walker, Minn.	Aug. 5
Aug. 12	Keosaqua, Ia.	Aug. 5
Aug. 12	Jackson, O.	Aug. 5
Aug. 13	Burlington, Ia.	Aug. 5
Aug. 13	Ontonagon, Mich.	Aug. 5
Aug. 13	New York, N. Y.	Aug. 5
Aug. 14	Superior, Wis.	Aug. 5
Aug. 14	Charleston, W. Va. Adv. July 22 to Aug. 5.	July 22
Aug. 14	Opelousas, La. Adv. July 15 to Aug. 5.	July 15
Aug. 14	Arkansas	July 29
Aug. 14	Charleston, W. Va.	July 29
Aug. 14	Michigan	July 29
Aug. 15	Monticello, Miss.	July 29
Aug. 15	Denver, Colo.	Aug. 5
Aug. 17	Columbus, O.	Aug. 5
Aug. 17	Lecompte, La.	Aug. 5
Aug. 17	Sault Ste Marie, Mich.	Aug. 5
Aug. 17	Decatur, Ga.	Aug. 5
Aug. 17	Lapeer, Mich.	Aug. 5
Aug. 17	Leavenworth, Kan.	Aug. 5
Aug. 17	Decatur, Ga.	Aug. 5
Aug. 18	Arkansas	Aug. 5
Aug. 18	Carrollton, Ga.	July 29
Aug. 18	Canyon, Tex.	July 29
Aug. 18	Three Rivers, Que.	Aug. 5
Aug. 20	Tennessee	Aug. 5
Aug. 20	Rutherfordton, N. C.	Aug. 5
Aug. 20	Ohio	July 29
Aug. 20	Amarillo, Tex.	July 29
Aug. 20	Amarillo, Tex. Adv. July 29 to Aug. 5.	July 22
Aug. 20	Oswego, Kan.	Aug. 5
Aug. 20	St. Joseph Adv. Aug. 5.	Aug. 5
Aug. 24	Webster Springs, W. Va. July 29 and Aug. 5.	July 29
Aug. 24	Missouri	Aug. 5
Aug. 24	Columbia, S. C. Adv. Aug. 5.	Aug. 5
Aug. 27	Troy, Kan.	Aug. 5
Aug. 29	North Bergen, N. J.	Aug. 5
Sept. 3	Olathe, Kan.	Aug. 5

EXCAVATION AND DREDGING

Aug. 7	Mt. Carmel, Ill.	July 22
Aug. 9	Clarion, Ia.	Aug. 5
Aug. 10	Waseca, Minn.	July 29
Aug. 14	Rockwell City, Ia.	July 29
Aug. 14	St. Helens, Ore.	Aug. 5
Aug. 18	Albert Lea, Minn.	Aug. 5

INDUSTRIAL WORKS

Aug. 8	Brantford, Ont.	July 29
Aug. 9	Abilene, Tex.	Aug. 5
Aug. 11	Cleveland Heights, O.	July 29
Aug. 12	St. Thomas, Ont.	Aug. 5
Aug. 15	Port Arthur, Ont.	July 22
Aug. 17	New Orleans, La.	Aug. 5
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

Aug. 9	Oberon, N. D.	July 8
Aug. 9	East Moline, Ill.	July 29
Aug. 9	McKeesport, Pa.	July 29
Aug. 9	Toledo, O.	Aug. 5
Aug. 10	Detroit, Mich.	July 29
Aug. 10	Chicago, Ill.	July 15
Aug. 10	Sidney, O.	Aug. 5
Aug. 10	Ashley, N. D.	July 29
Aug. 11	Detroit, Mich.	July 29
Aug. 13	Prospect, O.	July 22
Aug. 14	Prospect, O.	Aug. 5
Aug. 15	Mitchell, S. D.	Aug. 5
Aug. 15	Hinckley, Minn.	Aug. 5
Aug. 15	Montreal, Que.	July 22
Aug. 15	Verdun, Que.	July 29
Aug. 16	Sioux City, Ia.	June 17
Aug. 16	Kalamazoo, Mich.	Aug. 5
Aug. 19	Coburn, Ia.	Aug. 5
Aug. 19	Syracuse, N. Y.	Aug. 5
Aug. 21	London, Ont.	July 22
Aug. 21	Rolla, N. D.	Aug. 5
Sept. 1	Cedar Rapids, Ia.	Aug. 5
Sept. 3	Ft. Wayne, Ind.	July 29
Sept. 15	Denver, Colo.	Aug. 5

FEDERAL GOVERNMENT WORK

Aug. 9	Changes in Post Office—St. Louis, Mo.	July 29
Aug. 9	Road Work—Montana	Aug. 5
Aug. 11	Temporary Storehouse — Spec. 4229—Pearl Harbor, H. T.	July 8
Aug. 11	Tracks—Spec. 4196—South Boston, Mass.	July 22
Aug. 11	Electric Underground Distributing System — Spec. 4240—Hampton Roads, Va.	July 22
Aug. 11	Boiler and Stokers—Spec. 4124—Portsmouth, N. H.	July 22
Aug. 11	Harbor Development—Spec. 4136—Great Lakes, Ill.	July 22
Aug. 16	Diversion Dam—Florence, Ariz.	July 15
Aug. 16	Remodeling Boiler — Ft. Stanton, N. M.	July 29
Aug. 17	Boiler—Cleveland, O.	Aug. 5
Aug. 17	Road Work—Washington, D. C. Adv. Aug. 5.	Aug. 5
Aug. 18	Pier — Spec. 4165 — Guantanamo Cuba	July 22
Aug. 18	Cast Iron Ballast Balls, etc. —Tompkinsville, N. Y.	Aug. 3
Aug. 19	Steel Bell Buoys, etc. — Tompkinsville N. Y.	Aug
Aug. 23	Stern Wheel Steel Towboat Hull—Vicksburg, Miss. Adv. July 29 and Aug. 5.	Aug
Aug. 23	Remodeling Post Office — South Bend, Ind.	Aug
Aug. 24	Canal—Caldwell, Idaho	July
Aug. 25	Station, etc.—Fairport, O. Adv. Aug. 5.	Aug
Aug. 25	Steam Distributing and Condensate Return System — Spec. 4258—Hampton Rds. Va. Adv. Aug. 5.	Aug
Aug. 26	Return Flue Boilers—Memphis, Tenn. Adv. Aug. 5.	Aug
Aug. 26	Steel Hull—Memphis, Tenn. Adv. Aug. 5.	Aug
Aug. 26	Dredging — Providence, R. I. Adv. July 29 and Aug. 5.	Aug
Aug. 27	Remodeling Post Office and Court House — Roanoke, Va. Adv. Aug. 5	Aug
Aug. 30	Stern Wheel Steamboat — St. Louis, Mo.	Aug
Sept. 3	Post Office—Columbia, S. C.	Aug

MISCELLANEOUS

Aug. 9	Culverts—St. Joseph, Mo.	July 29
Aug. 9	Lead Pipe—St. Paul, Minn.	Aug. 5
Aug. 10	Buckeye Traction Ditcher—Nicollet, Minn.	Aug. 5
Aug. 11	Fire Apparatus—Phillipsburg, N. J. Adv. Aug. 5.	Aug. 5
Aug. 11	Gasoline—Brooklyn, N. Y.	Aug. 5
Aug. 17	Motor Driven Pump, Oil Switches, Air Compressor—Florence, Wis.	July 29
Aug. 17	Piles—Detroit, Mich.	July 29
Aug. 17	Wharf—Bass River, N. S.	Aug. 5
Aug. 17	Wharf — Campbell River, B. C.	Aug. 5
Aug. 17	Wharf — Grahm Landing, B. C.	Aug. 5
Aug. 17	Wharf—Kootenay, B. C.	Aug. 5
Aug. 17	Wharf—Nandimo, B. C.	Aug. 5
Aug. 17	Lamp Post and Gas Mantles —St. Louis, Mo.	Aug. 5
Aug. 19	Dam—Montreal, Que.	Aug. 5
Sept. 15	Street Paving, etc.—Philadelphia, Pa. Adv. Aug. 5.	Aug. 5

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Md., Baltimore—City election Nov. 2, to vote on $15,000,000 bonds to increase water supply. H. G. Perring, City Hall, ch. engr.

O., Barberton—City plans election in August to vote on $1,000,000 bonds to build 3½ mi. reservoir, north of Loyal Oak Rd., 1,400,000,000 gal. capacity, with 26 mi. water shed, and dam 300-400 ft. wide and 35 ft. deep. W. H. Dittoe, State Dept Health, Columbus, ch. engr.

O., Oxford—City plans to build waterworks system, hydraulic development 1,000,000 gal. capacity. About $100,000. L. A Boulay Co., 1250 Nicholas Bldg., Toledo, engr.

Wis., Colfax—Village rejected bids received June 28, furnishing labor and material building waterworks and sewerage systems. T. Runnung, clk. Noted June 24.

N. D., Bismarck—City Comrs. rejected bids received July 12, building complete waterworks system, to include filtration plant. T. R. Atkinson, city engr. Noted June 17.

Okla., Altus—City had plans prepared improving waterworks system, to include 6½ mi. canal and earth filled diversion dam. About $25,000. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs. Noted April 1.

Cal., Harper — Newport Heights Irrigation Dist. plans to build 2,000,000 gal. reinf. con. circular reservoir, etc. About $21,400. P. E. Krissby, consult. engr.

Ont., Toronto—City election in January to vote on $8,000,000 by-law to build waterworks system in eastern section of city, to include intakes, pumphouse, filters, high and low pressure pumps and reservoirs. R. C. Harris, city engr.

Waterworks (Continued)

BIDS DESIRED

N. Y., Middletown—Until Aug. 23, at office of J. A. Korschen, comr. bd. pub. wks., City Hall, building covered rein.-con. reservoir (250,000 gal. capacity), to include supply and discharge piping, 6 additional filter units with mechanical equipment, substructure reinforcement, etc.; advertised in this issue.

Wis., Cedarburg—Until Aug. 24, by F. Schuette, city clk., improving waterworks system, to include drilling 1,200 ft. well, building rein.-con. reservoir, 50,000 gal. steel tank on 90 ft. steel tower, 20 x 26 ft. brick pumping station, furnishing 300 gal. motor-driven centrifugal pump, valves, hydrants, 105 manholes, 2 sewage disposal tanks, etc. About $200,000. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr.

N. D., Hankinson—Until Aug. 12, by G. W. Rennex, city aud., building waterworks system, involving 25,980 ft. 4-8 in. c.i. pipe, 30 hydrants, 100,000 gal. tank and tower, rein.-con. reservoir, etc. About $50,000. Dakota Eng. & Constr. Co., Valley City, engrs.

Mo., Fayette—Until Aug. 12, by City Council, building 14,000 ft. pipe line, earth filled dam, and intake works. Johnson & Benham, Firestone Bldg., Kansas City, consult. engr. Noted July 29.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**New York**—Dept. Pub. Welfare, Municipal Bldg., New York City, let contract building coal railway and trestle in city home, Blackwell Island and automatic coal railway trestle in Metropolitan Hospital, to A. M. Hazell, Inc., 25 Cortland St., New York City, $17,380 and $23,600 respectively. Noted July 1.

★**O., Eaton**—City let contract building new filtration plant ,to Burgess & Nitle, Columbus. About $25,000. Noted May 27.

★**Wis., Stratford**—Village will build well-reservoir and brick pumping station, also install power pump and gasoline engine. Work will be done by day labor. Noted July 15.

★**Minn., Buffalo**—City let contract improving waterworks system to include 7,525 lin.ft. 4-8 in. Class B, c.i pipe and 16 hydrants, etc., to Phelps-Drake Co., Minneapolis, $17,948. Noted June 29.

★**Ariz., Phoenix**—City Council let contract excavating and backfilling 20 mi. for wood stave pipe line for water supply, to Ford, Morgan & Co., $80,000; 6 mi., to R. E. Shea, $18,000.

★**Ont., Hawksbury**—Town will build waterworks and sewerage systems, involving 15,000 ft. 6 in. c.i. pipe. About $65,000. Work will be done by day labor under supervision of V. E. Belanger, Hawkesbury, engr. Noted July 15.

Sewers

PROPOSED WORK

Mass., Boston—City rejected bids received July 21, building sewers in Saville and Wren Sts.

N. Y., S. I., South Beach—C. D. Van Name, pres. Richmond Boro., St. George, received no bids building large system of sewers, here. About $175,000. Work will be readvertised. Noted July 22.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received no bids July 30, building temporary sewer in Seaside Blvd., from Sea Ave. to point 3,000 ft. west of Sand Lane, etc. Noted July 15.

N. Y., Syracuse—City plans to build sewage pumping station and storm sewers in Solar, Kirkpatrick and Van Rennselaer Sts., cost to exceed $100,000; storm sewers in Longview and Crawford Aves., $25,000; Strathmore Sect., $57,570; Salt Springs Rd. and Ferris Ave., $25,000. H. C. Allen, city engr.

Md., Baltimore—City election Nov. 2, to vote on $26,000,000 bond issue to build sewers, lighting system, schools and engine houses, also pave various streets. H. G. Perring, City Hall, ch. engr.

N. C., East Spencer—City plans to build 7 mi. sewers in various streets. About $25,000. J. B. McCrary Co., 3d Natl. Bank Bldg., Atlanta, Ga., engrs.

O., Akron—City plans to build 740 ft. sewer in Fairmont St., cost $3,640; 324 ft. in Lookout Ave., $1,480; 1,065 ft. in Montrose St., $7,040; 985 ft. in Zeller St., $8,050; 640 ft. in Coventry St., $4,350; 1,200 ft. in Andrus St., $6,025; 8,590 ft. in South Main and Emerling Sts., $47,650; 16,440 ft. in South Arlington Dist., $236,750; 48,400 ft. in Maple St. Dist., $175,000; 64,500 ft. in Bye St. Dist., $233,000; 8,400 ft. in Tallmadge Ave., $84,000; 6,640 ft. in Cuyahoga Falls and North Hill Aves., $30,000; 2,870 ft. in Hickory St., $14,500; 485 ft. in Hickory and Walnut Sts., $2,400; Butler and Oak Sts., $3,300; 1,640 ft. in Bettie and Gage Sts., $86,200; 895 ft. in City View and Magennice Sts., $4,470; 1,370 ft. in Bairs St., $6,850; 3,900 ft. in Glendale Ave., $375,000; 8,400 ft. in Cuyahoga Ave., $56,000. J. E. Root, supt.

O., Greenspring—City plans to build 10 mi. sewers, here, involving concrete and tile block pipe. About $50,000. L. A. Boulay Co., 1250 Nicholas Bldg., Toledo, engrs.

Wis., Colfax—See "Waterworks."

Ont., London—City plans to build rein.-con. sewage disposal plant with either Imhoff tanks or activated sludge. About $75,000. H. A. Brazier, city engr.

BIDS DESIRED

N. Y., Bedford Hills—Until Aug. 13, by W. G. Barrett, pres. bd. mgrs., State Reformatory for Women, repairing sewage disposal plant. L. F. Pilcher, Albany, state archt.; advertised in this issue.

N. J., Jersey City—Until Aug. 10, by city, building sewerage system in Fisk St. Drainage Area. Cost to exceed $25,000. F. Dolan, clk.

Pa., Allentown—Until Aug. 23, by Bd. Trustees, building extensions to sewage treament plant, at State Hospital. H. F. Klopp, supt.; advertised in this issue.

Pa., Lebanon—Until Aug. 16, by Mayor and Council, furnishing 1,400 ft. 39 in. rein.-con. pipe (Contract A); laying 430 ft. Lafayette St. Storm Sewer (Contract B); laying 1,000 storm sewer in 9th Ward (Contract C). P. A. Volcker, city engr.; advertised in this issue.

Pa., Reading—Until Aug. 25 by City Clerk, building house sewer relief trunk line in North 3rd St. E. B. Ulrich, city engr.; advertised in this issue.

Wis., Kilbourn—Until Aug. 13 (change of date), by A. W. Leutgerodt, city clk., building sewers in various streets, including furnishing and laying 98 ft. 10 in. outfall sewer, 5 manholes, building sand rock sewer tunnel, involving 1,623 cu.yd. excav., etc. W. G. Kirchoffer, 22 Carroll St. N., Madison, engr. Noted July 22.

N. D. Hankinson—Until Aug. 12 by G. W. Rennix, city aud., building sewerage system, involving 26,709 ft. 8-15 in. vitr. pipe, 48 man-holes, septic tank, sludge bed, etc. About $30,000. Dakota Eng. & Constr. Co., Valley City, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Northbridge**—Bd. Sewer Comrs. let contract building sewerage system, to McClintock & Woodfall, 15 Court Sq., Boston. About $81,000. Noted July 15.

★**Pa., Phila.**—City let contract building branch sewers in streets as follows: to Estate D. McMahon, P. O. Bldg., Germantown, Cliveden St. from Magnolia to Musgrave Sts., $1,842; R. Bennis, 710 East Chelten Ave., 18th St. from Medary St. to point 180 ft. northeast, $3,970; C. D. Land, 26th and Cambria Sts., Emery St. from Lehigh St. to Phila. & Reading R.R., $3,159, also Wyoming St. from Mascher St. to P. N. & N. Y. R.R., $8,544; C. Ricciardi, 1226 South Juniper St., Mercy St. from Water to 2d Sts., $5,330, Mountain St. from Front to Hancock Sts., $3,257, Sigel St. from 7th to 8th Sts., $3,240, Sigel St. from 9th to 10th Sts., $3,233, Watkins St. from 10th to 11th Sts., $3,062; McCool Constr. Co., 5033 Duffield St., Fillmore St. from Thompson to Almond Sts., $3,050, I St. from Tioga to Atlantic Sts., $2,650, Palmetto St. from Tioga to Atlantic Sts., $2,179; I. K. Davis Co., 20th and Spencer Sts., Lambert St. from Spencer to Godfrey Sts., $11,064; F. T. Buckius, 4050 Kensington Ave., Florence St. from 53d to 54th Sts., $886; R. F. Higgins, 712 Liberty Bldg., Lawrence St. from Grange to Nedro Sts., $4,653, Quince St. from Lombard to Waverly Sts., $2,628; Ryan & Heller, 2903 West Lehigh Ave., Hancock St. from Shunk to Oregon Sts., $12,434; J. Perna, 362 North 65th St., Camac St. from Olney to Grange Sts., $19,120, Olive St. from Hancock to Newmarket Sts., $1,275, 12th St. from Olney to Grange Sts., $23,082; A. A. Pastor, 5903 Woodland Ave., Greenway St. from 65th to 66th Sts., $3,857, 22d St. from Point Breeze to Dickinson Sts., $2,210; R. Lombardi, 601 Lincoln Bldg., 56th St. from Willow to Springfield Sts., $44,679, Rising Sun Lane from Boulevard to Wyoming St., $39,115; D. Peoples, 743 East Penn St., Germantown St. from Southampton to Highland Sts., $34,502, Kenyon St. from School House Lane to Armat St., also East School House Lane from Kenyon St. to Market Sq., $14,315, T. P. Lee, 5629 Cherry St., Stewart St. 57th to 59th Sts., $17,074; N. Cascetti, 2037 West Venango St., 11th St. from Green to Mt. Vernon Sts., $2,518, 11th St. from Wallace to Lemon Sts., $1,856, Lippincott St. from Emerald St., S.E., to dead end, $2,836; J. J. McHugh, 1430 South Penn Sq., Champlost St. from York Rd. to 16th St., $16,842, Luzerne St. from O to Kensington Sts., $14,068, Nedro St. from 6th to 7th Sts., $17,243, Vankirk St. from Jackson to Walker Sts., $30,548; W. H. Yettman, Jr., 601 Lincoln Bldg., Kensington St. from Westmoreland to Ontario Sts., $8,900; J. F. Reilly, 712 Liberty Bldg., Cherry St. from Conestoga to 55th Sts., $3,214, Locust St. from 47th to 49th Sts., $8,682, Malvern St. from 56th to 57th Sts., $1,956; A. Di Sandro, 3906 North 5th St., Bodine St. from Wingohocking to Bristol Sts., $11,448, Crosskey St. from Cambria to Indiana Sts., $5,363, Fairhill St. from Grange to Nedro Sts., $6,280, Howard St. from Loudon to Rockland Sts., $4,087, Lawrence St. from Rockland to Ruscomb Sts., $5,188, Loudon St. from Mascher to Front Sts., $1,755, Mascher St. from Tioga to Glenwood Sts., $4,651, Rockland St. from Mascher St. to Rising Sun Lane, $2,595, 6th St. from Grange to Nedro Sts., $6,825, Wentz St. from Mascher to Front Sts., $6,362. Noted July 8.

★**Pa., Pittsburgh**—City let contract building Uptegraff St. Sewer, to J. E. Born, Union Arcade, $25,165. Noted July 15.

★**O., Lakewood** (Cleveland P. O.)—City let contract building sewers and water curb connections in Richland and South Lakeland Aves., Elber and Bentz Rds., to Joseph & Kalill, 1200 Bolivar Rd., Cleveland. About $25,000.

★**Ia., Bancroft**—City let contract building sewerage system, to O. N. Gjellefald, Forest City, $86,000; sewcage disposal plant, to H. R. Ash, Bancroft.

★**Col., Denver**—City let contract laying 38,000 ft. 12-48 in. vitr. and brick pipe in East Side Storm Sewer Dist. 1, to Gibbons & Lawrence, Denver. About $146,000.

Ore., Portland—City Council recevied bids July 21, building (a) Portland Blvd. and Piedmont Sewerage System, (b) Morgan and Moore Sts. Sewerage System, (c) building sewer in 40th Ave. S.E. from 54th Ave. S. E. to Foster Rd., (d) East 37th St. from Liebe St. to Raymond Ave., (1) cement, (2) vitr., from Parker-Schram Co., 214 Lumbermen's Exch. Bldg., (a1) $59,997, (b1) $38,674; Mehemarie & Co., (c1) $1,469, (d1) $762; J. Keating, (b1) $42,367; J. Albert, 794 East 11th St., N., (c1) $1,490, (d1) $811; Lundstrom & Carlson, (c2) $1,685, (d2) $795; Lane & Pasanen, (c2) $1,609, (d2) $819.

★**Ont., London**—City let contract laying 8-12 in. tile sanitary sewers in various streets, to J. McMurphy, 29 Oak St. About $29,500. Noted April 1.

Bridges

PROPOSED WORK

N. Y., White Plains—Bronx Parkway Comn., West Pondfield Rd., Bronxville, received no bids building 145 ft. rein.-con. and stone viaduct, 25 ft. wide, on Woodland Pl., here. Work will be readvertised. Noted May 20.

N. J., Trenton—See "Streets and Roads."

N. C., Florence—Gaston Bridge Co., Franklin, Va., plans to build bridge over Roanoke River, near here, probably steel. About $50,000.

N. C., Mocksville—Comrs. Davie Co. plan to build 187 ft. steel bridge over Bear Creek, here. N. S. Mullican, Mocksville, engr.

Fla., St. Augustine—See "Streets and Roads."

Kan., Belleville—Republic Co. had plans prepared building 8 rein.-con. bridges, varying in size from 14 to 35 ft. long, 18 ft. wide. E. C. L. Wagner, 603 Kemper Bldg., Kansas City, Mo., engr.

Mo., Forsythe—Forsythe Special Rd. Dist. having plans prepared building 480 ft. bridge, 18 ft. wide, over White River, to have two 190 ft. river spans with approach spans. About $72,000. C. O. Mann, Jefferson City, engr.

Mo., St. Louis—Bd. Pub. Serv. soon receives bids building sewers in Harlem and Goodfellow Joint Sewer Dist., vitr. segmental block and vitr. brick laid in cement mortar. About $47,900. W. W. Horner, city engr.

Bridges (Continued)

Missouri—See "Streets and Roads."

Wash., Mt. Vernon—City and Northern Pacific Ry. had plans prepared for 500 ft. rein.-con. bridge, 22 ft. roadway and two 6 ft. sidewalks, over Northern Pacific Ry. tracks. About $90,000. Bowerman & McCloy, Mutual Life Bldg., Seattle, engrs.

Ont., Chatham—City having plans and estimates prepared and soon receives bids building trunk sewer. About $60,000. F. Adams, city engr.

BIDS DESIRED

Me., Augusta—Until Aug. 18 (change of date), at office of Supervising Engineer, Dept. Pub. Wks., Quebec, Que., Canada, building substructure and superstructure of Edmunson, N. B.-Madawaska, Me., International Bridge; advertised in this issue. Noted July 29.

N. J., Glenmore—Until Aug. 10, by Bd. Freeholders Mercer Co. (Trenton), reinforcing and strengthening 101 ft. steel truss bridge, over Stony Brook, here, involving 32,000 lb. structural steel, 6,300 lb. reinforcing rods, 221 sq.yd. asphalt flooring and 55 cu.yd. concrete. H. F. Harris, Court House, Trenton, engr.

Pa., Pottsgrove—Until Aug. 10, by R. Kisner, solicitor, 110 Mill St., Danville, building 14 ft. concrete bridge, near here, 16 ft. wide, structure to be 8 ft. from bottom of foundations to top of floors, for Liberty Twp. Supervs., Danville. About $25,000.

Pa., Powys (Trout Run P. O.)—Until Aug. 11, by Comrs. Lycoming Co. (Williamsport), building new rein.-con. abutments, moving steel superstructure 900 ft., installing steel stringers, constructing creosote flooring and painting 75 ft. bridge over Lycoming Creek, Route 20, here. About $25,000. M. H. Krause, co. engr.

Pa., Reading—Until Aug. 25, by City Clerk, rebuilding superstructure of Front St. Bridge, concrete and asphalt flooring. E. B. Ulrich, city engr.; advertised in this issue.

North Carolina—Until Aug. 25, by State Highway Comn., at div. office, Greensboro, building rein.-con. bridge over Yadkin River between Montgomery and Stanley Counties, W. S. Fallis, Raleigh, state highway engr.; advertised in this issue.

Ga., Lumpkin—Until Aug. 10, by Comrs. Rds. & Revenues, Stewart Co., furnishing labor and material building 2 rein.-con. deck girder bridges on Lumpkin-Richland Rd., 1 mi. from here, Federal Aid Project 163. Bridge 1, to have one 60 ft. span, includes removal of old structure, and involves 90 cu.yd. wet excav., 170.23 cu.yd. Class "A" and 139.63 cu.yd. Class "B" concrete, 23,200 lb. reinforcing steel, etc.; Bridge 2, 28 ft. span, include removal of old structure, and involves 56 cu.yd. wet excav., 30.95 cu.yd. Class "A" and 658 cu.yd. Class "B" concrete, 9,077 lb. reinforcing steel, etc. J. V. Castleberry, clk.

Illinois—Until Aug. 11, by State Highway Dept., Springfield, building bridges on following highways: Carbondale-Marion Highway, Federal Aid Project 15, two 30 ft. concrete span bridges on Sect. 1B, Williamson Co., involving 232.7 cu.yd. concrete, 24,060 lb. reinforcing steel, 329 bbl. cement, etc., Sect. 5B, Jackson and Williamson Counties, one 120 ft. steel span bridge, 501 cu.yd. concrete, 45,830 lb. structural steel, 731 bbl. cement, etc., one 16 ft. and one 30 ft. concrete span bridges, 97,970 cu.yd. concrete; Mt. Vernon-Fairfield Highway, Federal Aid Project 16, one 60 ft. concrete span bridge on Sect. 15B, Jefferson Co., 255.6 cu.yd. concrete, 39,430 lb. reinforcing steel, 373 bbl. cement, etc., one 45 ft. and two 22 ft. concrete span bridges on Sect. 16B, Jefferson and Wayne Counties, 350.5 cu.yd. concrete, 39,480 lb. reinforcing steel, 512 bbl. cement, etc., one 20 ft., one 40 ft. and two 50 ft. concrete span bridges on Sect. 18B, Wayne Co., 596.2 cu.yd. concrete, 75,760 lb. reinforcing steel, 842 bbl. cement, etc.; Freeport-Rockford Highway, Federal Aid Project 19, Stephenson Co., one 20 ft. and one 40 ft. concrete span bridges, Sect. 18B, 216.7 cu.yd. concrete, 27,240 lb. reinforcing steel, 317 bbl. cement, etc., one 26 ft. and one 40 ft. concrete span bridges, Sect. 19B, 376.1 cu.yd. concrete, 42,562 lb. reinforcing steel, 550 bbl. cement, etc., one 120 ft. steel span bridge, Sect. 19C, 262.5 cu.yd. concrete, 18,190 lb. reinforcing steel, 383 bbl. cement, etc. C. Older, ch. highway engr.

Kan., Junction City—Until Aug. 14, by Comrs. Geary Co., building 150 ft. bridge, 18 ft. roadway, on East 6th St. Rd., involving 813 cu.yd. concrete, 27,100 lb. steel reinforcement, 37,400 lb. structural steel, etc. H. Moon, clk. Noted July 29.

Missouri—Until Aug. 20 (change of date), by State Highway Dept., St. Joseph, building skew slab superstructure and 4 rein.-con. pile bents over Contrary Creek, Sta. 64 plus 32, cost $9,491; through girder superstructure and 2 rein.-con. abutments over Rushville Drainage Ditch, Sta. 649 plus 51, $9,887; deck girder superstructure, 2 rein-con. abutments and 1 temporary bridge, over Drainage Ditch, Sta. 229, $4,788; skew slab superstructure, 2 rein.-con. abutments and 1 concrete pier over Drainage Ditch, Sta. 515 plus 65, $4,689; skew slab superstructure, 2 rein.-con. abutments and 2 piers, over Drainage Ditch, Sta. 357 plus 90, $6,381. Above projects in Buchanan Co., Federal Aid Project 49, Sect. B, and all to have 18 ft. clear roadway. Noted July 29.

Tex., Bonham—Until Aug. 23, by S. Smith, secy. Bonham Red River Bridge Co., building bridge over Red River, to have four 185½ steel spans, 18 ft. wide. Harrington, Howard & Ash., Orear Leslie Bldg., Kansas City, Mo., engrs. Noted April 8.

Mont., Shelby—Until Aug. 10, by H. E. Moody, aud. Toole Co., building 75 ft. steel span bridge on tubular piers and timber approaches, 60 ft. wood pile bridge and 20 ft. standard concrete slab bridge, involving 32,000 lb. structural and 9,338 lb. reinforcing steel, 12,000 lb. steel in tubular piers, 1,400 lin.ft. piling, 34,820 ft. lumber, 78 cu.yd. Class "A" concrete in standard slab bridge and 36 cu.yd. Class "C" concrete in tubular piers. About $26,000.

Oregon—Until Aug. 10, by State Highway Comn., Salem, building 4 wooden bridges on Crooked River Highway, Crook Co., involving 1,100 cu.yd. excav., 35 cu.yd. Class "A" and 560 cu.yd. Class "B" concrete, 9,100 lb. metal reinforcing, 790 lin.ft. piling, 460 lin.ft. wooden trestle, two 40 ft. and two 20 ft. wooden truss spans; 5 wooden bridges on John Day River Highway, Grant Co., 715 cu.yd. excav., 15 cu.yd. Class "A" and 345 cu.yd. Class "B" concrete, 6,400 lb. metal reinforcing, 224 lin.ft. wooden trestle, four 40 ft. wooden truss spans and two 105 ft. wooden truss spans; 1 bridge over Haystack Creek on John Day River Highway, Wheeler Co., 80 cu.yd. excav., 39 cu.yd. Class "B" concrete, 40 lin. ft. wooden trestle and one 40 ft. wooden truss span. H. Nunn, state highway engr.

Alaska, Nenana—Until Sept. 6, by Alaska Eng. Comn., Bell St. Dock, Seattle, building 570 ft. steel viaduct to carry railroad over Riley Creek, regular grade on south approach, 350 ft. framed timber trestle on north approach, to have 6 steel towers, seven 30 ft. girder tower and six 60 ft. girder intermediate spans, involving 490 ton steel, 90 lb. A. S. C. E. type rails and 8 x 12 in. fir ties. About $100,000.

PRICES AND CONTRACTS AWARDED
(★Indicates award of contract)

★**Vt., Boltonville**—Boston & Maine R.R. North Sta., Boston, let contract building concrete and steel bridge, here, to Wilson & English Constr. Co., 176 Federal St., Boston. About $30,000.

★**Vt., Plainfield**—Boston & Maine R.R., North Sta., Boston, let contract building Bridge No. 8, concrete and steel, to Wilson & English Constr. Co., 176 Federal St., Boston. About $30,000.

★**Vt., Wells River**—Boston & Maine R.R., North Sta., Boston, let contract building concrete and steel bridge, along railroad tracks, here, to Wilson & English Constr. Co., 176 Federal St., Boston. About $27,000.

★**Mass., Cambridge**—Boston & Maine R. R., North Sta., Boston, let contract building steel highway bridge on Porter Sq., here, to Boston Bridge Wks., Inc., 47 Winter St., Boston. About $35,000.

★**Pa., Elizabethtown**—Dauphin Co. (Harrisburg) let contract building concrete intercounty bridge over Conewago Creek, between here and Middletown, to O'Brien & Sharkey, Phila., $25,817 (80 days).

★**Pa., Hummelstown**—Dauphin Co. (Harrisburg) let contract building 3 arch concrete bridge over Swarta Creek, here, to Wagman Bros., Dallastown, $113,900 (180 days). Noted June 3.

★**Pa., Vintondale**—Cambria Co. let contract removing temporary bridge and building rein.-con. arch bridge over Blacklick Creek, 80 ft. long and 18 ft. wide, rein.-con., to Elder & Evans, Ebensburg, $28,020 (120 days). Noted July 15.

★**Fla., Milton**—Comrs. Santa Rosa Co. let contract building 338 ft. steel bridge (Bascule lift span) over Blackwater River on State Road 1, to Pensacola Shipbuilding Co., Blount Bldg., Pensacola, $75,600.

★**Wis., Beloit**—City let contract building 249 ft. rein.-con. bridge, 66 ft. wide, on Central St., to Stein Constr. Co., 204 Grand Ave., Milwaukee. About $82,500. Noted July 8.

★**Ia., Independence**—Buchanan Co. let contract building bridges and culverts at various points, to J. E. Elliott, Fairbank, $4,864, A. Olson Constr. Co., 401 Black Hawk Natl. Bank Bldg., Waterloo, $17,4[illegible] F. E. Reinhold, Quasqueton, $17,874.

★**Minn., Mora**—Kanabec Co. let contract building 66 ft. rein.-con. culvert and Bridge 3154, Federal Aid Project 91, on State R[illegible] 2, to have three 55 ft. rein.-con. spans, to F. Gustafson, Brahm. About $31,600.

★**N. D., Jamestown**—Stutsman Co. let contract building steel bridge over James River, on 5th St., to Jardine Co., 1325 Front St., Fargo. About $29,600.

★**Idaho**—State Highway Dept., Boise, let contract building Owsley Ferry Bridge, Federal Aid Project 8, Twin Falls and Gooding Counties, involving 250 ton steel, to Milwaukee Bridge Co., 1400 34th St., Milwaukee, Wis. Noted June 24.

★**Wash., Milwood**—Spokane Co. (Spokane) let contract building 150 ft. concrete bridge, here, to have two 60 ft. approach spans, to W. A. Byers, 1204 Mansfield St., Spokane, $64,980.

Streets and Roads

PROPOSED WORK

Maine—State Highway Comn., Augusta, soon receives bids building 26 mi. gravel road. A. W. Brooks, chn.

New Hampshire—State Highway Comn., Concord, soon receives bids building 2 mi. Newington Rd., cost $66,000; 2 mi. Bethlehem Rd., $60,000; 3,000 ft. Diamond Hill Rd., $18,000; 2 mi. Lebanon Rd., $65,000. F. E. Everett, comr.

Conn., West Haven (New Haven P. O.)—Bd. Selectmen plans to pave various streets. About $115,000. A. Cahn, 839 Chapel St., New Haven, engr.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received July 14, repaving with asphaltic concrete West 36th, East 51st, East 82nd and West 12th Sts., with asphalt block East 82nd St. and Bway., with wood block, Bway. Work will be readvertised. Noted July 22.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received no bids July 14, repairing with asphaltic concrete Bway., with asphalt block, 12th, East 51st and West 36th Sts. Noted July 22.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received July 6, regulating and repaving with asphalt block 179th, 182nd and Dykeman Sts., with sheet asphalt Mt. Morris Park. Noted July 15.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received no bids July 21, improving with asphalt block, Bway and 125th St., with sheet asphalt, West 18th, 86th, 125th Sts. and Bway., with wood block, Greenwich Ave., West 18th St., with granite block Greenwich Ave. Noted July 29.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received July 21, repaving West 18th St., sheet asphalt. About $100,000. Work will be readvertised.

N. Y., S. I. St. George—C. D. Van Name, pres. Richmond Boro., received no bids July 8, furnishing and applying 23,000 gal. bituminous material on Southfield Blvd., 9,700 gal. on Morningstar Rd. and 3,000 gal. on Division St. Work will be readvertised.

N. J., Jersey City—City soon receives bids improving Terrace Ave., asphalt on concrete base. About $50,000. F. Dolan, clk.

N. J., Jersey City—Hudson Co. Blvd. Comn. rejected bids July 7, improving Hudson Blvd. between Paterson Plank and Hackensack Plank Rds. Noted July 22.

N. J., Phillipsburg—Comrs. Warren Co. (Belvidere) plan to pave .75 mi. South Main St., 26 ft. wide, concrete. About $31,000. H. W. Vetter, Belvidere, engr.

N. J., Trenton—Bd. Freeholders Mercer Co. sold $670,000 bonds to build roads and bridges. H. F. Harris, co. engr.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, rejected bids received July 28, building .19 mi. state highway through town of Snow Hill, Contr. WO-22, and .31 mi. state highway through town of Pocomoke, Contr. WO-21. Noted July 22.

Md., Baltimore—City Council and State Rds. Comn., 601 Garrett Bldg., had tentative plans prepared for 1.5 mi. road to connect old Annapolis Rd. and Hanover St. at Hanover St. Bridge, 18 ft. wide, concrete,

Streets and Roads (Continued)

also 200 ft. concrete bridge over Washington, Baltimore & Annapolis Electric R.R. (Annapolis Short Line) and Baltimore & Ohio R.R. (Curtis Bay branch). J. N. Mackall, ch. state roads comn.

Md., Baltimore—See "Sewers."

Md., Hagerstown — Comrs. Washington Co. plan to improve 3 mi. road in Hedgeville Dist., 18 ft. wide, Kentucky rock asphalt. About $63,000. H. Holzapfel, Jr., chn.

D. C., Washington — Dist. Comrs. and Federal Government have appropriated $614,200 to grade, pave and repave various streets and avenues.

W. Va., Berkeley Springs—Morgan Co. rejected bids paving 3,000 ft. Hancock-Berkeley Rd. Noted July 8.

W. Va., Ripley—Jackson Co. plans election to vote on $90,000 bond issue to improve Columbia-Charleston Federal Highway, Union Dist.; $130,000 bonds to hard surface 15 mi. Columbia-Charleston Turnpike, Ripley Dist. T. A. Bragonier, co. engr.

N. C., Dobson—Comrs. Surry Co. plan to hard surface 8 mi. Mt. Airy-Hillsboro Rd. About $300,000. N. W. Thomasson, chn.

S. C., Columbia—City opens bids about Aug. 31, paving 3,800 ft. North Main St., 52 ft. wide. About $90,000. F. C. Wyse, 903 Woodrow St., engr.

S. C., Columbia — Comrs. Richland Co. open bids about Sept. 15, grading and hard surfacing 16 mi. Two Notch Rd., about 16 ft. wide. J. R. Pennell, Columbia, engr. Noted July 1.

Fla., St. Augustine—St. Johns Co. election Aug. 24 to vote on $2,250,000 bonds to pave, hard surface and build 2 concrete bridges.

Tennessee—State Highway Dept., Nashville, rejected bids received July 16, building 14.51 mi. state highway, McMinn Co. Work will probably be readvertised. Noted July 1.

Tenn., Shelbyville—City will sell $200,000 bonds Aug. 17, to improve highways.

Ky., Clinton—Hickman Co. (Clinton) and Fulton Co. (Hickman) plan election in November to vote on $400,000 bond issue to build Federal Aid Highway from Paducah to Fulton and Hickman.

O., Dayton—City plans to pave 5 alleys, 16-20 ft. wide, involving 5,000 sq.yd. concrete. About $26,000. G. Baker, city engr.

O., Minerva—City plans to pave 1 mi. various streets, 24 ft. wide, vitr. brick and stone curbing. About $70,000. L. A. Boulay Co., 1250 Nicholas Bldg., Toledo, engrs.

O., Oxford—City plans to pave 2,000 ft. College Ave., 40 ft. wide, vitr. brick on conconcrete base. About $40,000. L. A. Boulay Co., 1250 Nicholas Bldg., Toledo, engrs.

Mich., Houghton—Bd. Rd. Comrs. Hancock Co. plans to build rubble retaining walls, curb, gutters and surface .809 mi. State Trunk Line Rd. 15-6, 17 ft. wide, involving 1,164 cu.yd. earth excav., 8,556 sq.yd. bituminous macadam, etc. State Highway Dept., Lansing, engrs.

Ia., Des Moines—Polk Co. soon receives bids improving 4.8 mi. River to River Rd. from east city limits to and beyond city of Altoona, 18 and 20 ft. wide, involving 12,599 cu.yd. loose earth excav., 55,564 cu. yd. Class "A" concrete, 20,650 lin.ft. 6 in. drai ntile, etc. About $225,000. F. O. Laing, co. engr.

Montana—State Highway Dept., Helena, plans to improve 4 mi. Jennings-Worland Rd., also 4 mi. Rexford-South Rd., both 20 ft. wide Lincoln Co., earth graded, cost $19 998 and $19,965 respectively; 1 162 mi. Pershing-Creek Hill Rd., Stillwater Co., earth graded, $19,656; 17 mi. Glendive-Fallon Rd., type "B" gravel surfaced, $102,-194; 7 mi. Bonner-Nimrod Rd., Missoula Co., type "A" gravel surfaced, $91,850; 20 mi. Gildford-Joplin Rd., Hill Co., type "B" gravel surfaced, $101284; 3.23 mi. Mason-Laurel Rd., Yellowstone Co., type "B" gravel surfaced, $26,144. Federal Government has been asked to appropriate towards cost.

Mont., Choteau—Teton Co. plans to build 30 mi. Choteau-Dupuyer Rd., type "A" gravel surface. About $194,656. Federal Government has been asked to appropriate toward cost. J. N. Edy, Helena, engr.

Missouri—State Highway Dept., Jefferson City, plans to build 6.1 mi. Windsor-Leeton Rd., 24 ft. wide, Federal Aid Project 132, Henry Co., involving 12,200 cu.yd. excav., 2% rock, 240 cu.yd. rock excav., 57,260 sq.yd. Joplin chat surfacing, etc., extensions to 2 culverts, etc., cost $61,244; 8.1 mi. Clinton-Sedalia Rd., 24 ft. wide, Federal Aid Project 133, Henry Co., 16,000 cu.yd. excav., 1% rock, 162 cu.yd. rock excav., 76,035 sq.yd. Joplin chat surfacing, 5 culverts, extensions to 7 culverts, $84,095; 10.8 mi. Sedalia-Marshall Rd. (Longwood Special Rd. Dist.), 24 ft. wide, Federal Aid Project 131, Pettis Co., 45,000 cu.yd. excav., 6% rock, 2,700 cu.yd. rock excav., 101,700 sq.yd. waterbound macadam pavement, 21 rein.-con. culverts, etc., $140,400; 22.2 mi. Jefferson Highway, 24 ft. wide, Federal Aid Project 130, Harrison Co., 245,000 cu.yd. excav., 2% rock, 5,000 lin.ft. underdrain, 88 concrete and 21 rein.-con. pipe culverts, one 150 ft. steel span bridge to have two 25 ft. concrete slab spans, etc., $288,642; 3.8 mi. North State Highway, 24 ft. wide, Federal Aid Project 126, Audrain Co., 15,000 cu.yd. earth excav. and 35,670 sq.yd. gravel surfacing, $62,666.

Missouri—Good Rds. Council, representing every congressional dist. in state, plans to grade, pave and build bridges on various roads between principal cities. Election in November to vote on $60,000,000 bonds. Cost to be borne by state and federal aid. H. B. Hawes, Boatmans Bank Bldg., St. Louis, pres. Engineer not selected.

Tex., Nacogdoches — Nacogdoches Co. having plans prepared grading, surfacing and draining 32.68 mi. Highway 35 from Shelby Co. to Angelina Co. line, 16 ft. wide, involving 195 acres clearing and grubbing, 294,570 cu.yd. earth excav., 400 cu.yd. concrete, 65,360 cu.yd. gravel, 160,000 lb. fabricated and 202,000 lb. reinforcing steel, etc. About $364,200. L. Acker, Nacogdoches, engr.

Tex., New Boston — Bowie Co. having plans prepared grading, surfacing and draining 16.35 mi. Highway 1 and Highway 8 south to Sulphur River, involving 60 acres clearing and grubbing, 44,900 cu.yd. borrow, 40,100 cu.yd. earth excav., 25,580 cu.yd. gravel, 162,580 lb. reinforcing and 30,200 cu.yd. structural steel, 1,660 cu.yd. Class "A," 12.5 cu.yd. Class "B" and 84 cu.yd. Class "C" concrete. About $181,840. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Arizona—State Highway Comn., Phoenix, voted $210,000 bonds to rebuild and surface road from Winslow to Moqui Indian Reservation, Holbrook to Snowflake, Snowflake to Pinedale, and Holbrook to Winslow, Navajo Co.

Arizona—State Highway Comn., Phoenix, plans to build road from Oatman to Topack, Kingman to Nelson, Kingman to Lower Sandy, Lower Sandy to Signal, Kingman to Utah State Line, Kingman south to Phoenix via Bill Williams River Crossing, Mohave Co. About $300,000.

Wash., Everett—City having plans prepared laying concrete sidewalks and roadway on Summit Ave. from Everett to 20th Sts. About $27,000. A. B. Cutter, Everett, engr.

Wash., Puyallup—City having plans prepared grading and paving Park Ave., 5th Ave. N. W. and S. W., 9th Ave., S. W. and 2nd Ave. N. W. About $55,000.

N. B., Fredericton—City plans to pave various streets, involving 6,227 cu.yd. earth excav. and 15,000 sq.yd. waterbound and bituminous macadam. About $61,500. G. C. McDowell, Fredericton, engr.

BIDS DESIRED

New York—Until Aug. 10, by F. S. Greene, state highway comr., Capitol, Albany, improving, completing and repairing highways in Albany, Cattaraugus, Dutchess, Essex, Oneida, Onondaga, Schuyler, Wayne and Yates Counties; advertised in this issue.

N. Y., Brooklyn—Until Aug. 11, by E. Riegelmann, boro. pres., regulating, grading, curbing and laying sidewalks on Bath Ave. from 21st Ave. to Bay 35th St., regulating, curbing and laying sidewalks on Hegeman Ave. from Hopkinson Ave. to East 98th St., regulating and grading Hegeman Ave. from Hopkinson Ave. to East 98th St., regulating, grading, curbing, laying sidewalks and paving with preliminary bituminous macadam, Neptune Ave. from West 6th to West 8th Sts.

N. Y., Brooklyn—Until Aug. 11, by E. Riegelmann, boro. pres., regulating, grading, curbing and laying sidewalks on East 7th St. from Ave. T to Ave U, East 19th St from Ave. M to Ave. N, 52nd St. from 16th to 17th Aves., 82nd St. from 20th to 21st Aves.; regulating and paving with permanent asphalt on 6 in. concrete foundation, roadway of East 7th St. from Ave. T to Ave. U, 47th St. from New Utrecht to 18th Aves. 51st St. from 15th to 16th Aves., 52nd St. from 16th to 17th Aves., 81st St. from 21st to 22nd Aves., 82nd St. from 21st to 22nd Aves., regulating, paving and repaving with permanent asphalt on 6 in concrete foundation, Ave. K from Flatbush Ave. to East 40th St., furnishing ad delivering 2,500 bbl. Portland cement.

N. Y., New York—Until Aug. 12, by Park Bd., at office of Dept. Parks, Municipal Bldg., for labor and materials for repaving walks of Riverside Park asphalt mastic.

N. Y., New York—Until Aug. 10, by H. Bruckner pres. Bronx Boro., repaving with granite blocks on concrete foundation, roadway of 3rd Ave. fom East 138th St. to East 150th Sts., with dessed granite block, East 149th St. from Courtlandt to Morris Aves., with sheet asphalt Creston Ave. from East 181st to East 184th Sts., East 167th St. from 3rd to Park Aves., building sewers and appurtenances in Leland Ave. between Wood and East Tremont Aves., Archer St. from White Plains Rd. to Leland Ave. Guerlain St. between White Plains Rd. and Leland Ave.

N. Y., New York—Until Aug. 13, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with granite block on concrete foundation, roadway of State St. from Whitehall St. to Battery Pl., Prince St. from Wooster St. to West Bway. Wooster St. from point 213 ft. south of south curb line to south curb line of Prince St., East 39th St. from 1st to 3rd Aves., 122nd St. from Amsterdam Ave. to Riverside Dr., with asphalt block, 179th St. from Amsterdam Ave. to Bway., 182nd St. from Amsterdam to Wadsworth Aves., 182nd St. from Wadsworth Ave. to Bway., with sheet asphalt, 179th St. from Amsterdam Ave. to Bway. 182nd St. from Amsterdam to Wadsworth Aves., extending altering and improving outlet sewer at foot of East 122nd St. and Harlem River, etc.

N. J., Newark—Until Aug. 10, by city, improving Wolcott Terrace, Huntington and Providence Sts. involving 13,300 sq.yd. concrete paving, 6,000 ft. bluestone curbing, 2,500 ft. new cement sidewalks, 2,000 cu.yd. excav. About $30,000. Dep.t. Streets & Pub. Impvts., City Hall, engr.

N. J., Newark—Until Aug. 10, by city, improving New Jersey R.R. Ave. from Vanderpool to Stanton Sts., involving 3,300 sq.yd. concrete paving, 1,190 ft. new cut granite curbing, 800 sq.ft. new cement sidewalks and 332 cu.yd. excav. About $25,000. Noted June 10.

N. J., North Bergen—Until Aug. 29, by town improving South St. About $50,000 Noted April 1.

N. J., West Orange—Until Aug. 10, by G. C. Bergen, purch. agt. Essex Co., Court House, Newark, improving Mt. Pleasant Ave., here; advertised in this issue.

Maryland—Until Aug. 9, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building 0.22 mi. state highway through town of Frederick, known as Patrick St. Contr. F-37. J. N. Mackall, chn.; advertised in this issue.

Md., Baltimore—Until Aug. 11, by Bd. Awards, c/o City Register, City Hall, grading curbing and paving 37th and 38th Sts. from Star Lane to Frisby St., Frisby St. from 36th St. to Chestnut Hill Ave., involving 5,000 sq.yd. cement concrete, 3,100 lin.ft. armored concrete and 1,700 cu.yd. grading. Contr. 177.

W. Va., Princeton—Until Aug. 10, by L. G. Bowling, clk. Mercer Co., shale surfacing 2 mi. Duhring-Goodwill Rd., 9 ft. wide E. C. Barton, Bluefield, engr.

N. C., Rutherfordton—Until Aug. 20, by Comrs. Rutherford Co., grading and top soiling 10.25 mi. Charlotte-Asheville Highway. About $100,000. W. S. Fallis, c/o State Highway Dept., Raleigh, engr.

S. C., Columbia—Until Aug. 24, by City Council, paving North Main St. from Scott St. to northern city limits. F. C. Wyse, city engr.; advertised in this issue.

S. C., Union—Until Aug. 11, by Comrs. Union Co. top soiling, grading and building necessary bridges on 3.7 mi. Federal Aid Project 100, cost $40,000; 1.8 mi. Sect. A, Federal Aid Project 94, $12,000. W. B. Deeneen, Union, engr.

Ga., Decatur—Until Aug. 17, by Comrs. Roads and Revenues, De Kalb Co., furnishing labor and material grading, surfacing and draining 1.913 mi. National Highway between here and Scottdale, 18-32 ft. wide. Work involves 2,700 cu.yd. earth excav., 13,072 sq.yd. scarifying and reshaping, 1,307 ton stone, 10,793 sq.yd. new foundation, 23,865 sq.yd. pavement, 7,794 cu.yd. concrete, 597 lb. reinforcing steel, etc. Bids will be received on penetrated asphaltic macadam, asphaltic macadam, asphaltic concrete, Finley method, Kentucky Rock asphalt, Willite method, etc. L. T. Y. Nash, comr. E. V. Camp, Box, Box 421, Atlanta, project engr.

Streets and Roads (Continued)

Ga., Summerville—Until Aug. 11, by Bd. Comrs. Rds. and Revenues, Chattooga Co., top soiling 0.32 mi. Rome-Summerville Rd., Federal Aid Project 115, involving 0.327 acres, clearing and grubbing, 896 cu.yd. solid, 1,829 cu.yd. common and 3,362 cu.yd. borrow excav., 626 cu.yd. top soiling, 3.24 cu.yd. Class B concrete, etc.; building bridge over Little Amurchee Creek on above road, involving 92.96 cu.yd. Class A and 271.91 cu.yd. Class B concrete, 156.4 sq.yd. concrete granolithic (alternate Luten design), involves 80 cu.yd. Class A and 347 cu.yd. Class B concrete and 17,250 lb. reinforcing steel. B. F. Edmonson, chn.

La., Decompte—Until Aug. 17, by town, building 1 mi. sidewalk and ¼ mi. combined curb and gutter. J. L. White, town engr.

Tennessee — Until Aug. 20, by State Highway Dept., Nashville, grading and draining 14.544 mi. State Highway 36, between Carroll and Weakley Counties, involving 84,120 cu.yd. common excav., 45,059 cu.yd. borrow, 283 cu.yd. Class "A" and 349.5 cu.yd. Class "B" concrete, 47,060 lb. deformed steel bars, 1,450 lin.ft. 15-24 in. culvert pipe, etc.; 9.94 mi. State Highway 3, between Cheatham Co. line and Burns, Dickson Co., 57,471 cu.yd. common excav., 8,095 cu.yd. borrow, 68.42 cu.yd. Class "A" and 65.09 cu.yd. Class "B" concrete, 6,079 lb. deformed steel bars, 1,058 lin.ft. 12-30 in. pipe culverts; building 16.304 mi. State Highway 7, between Davidson Co. line and Murfreesboro, Rutherford Co., 22,082 cu.yd. common excav., 2,123 cu.yd. solid rock excav., 4,801 cu.yd. borrow, 9.19 cu.yd. special concrete, 349.78 cu.yd. Class "A" and 167.25 cu.yd. Class "B" concrete, 32,153 lb. deformed steel bars, 674 lin.ft. 12-24 in. pipe culvert, 135,044 sq.yd. reconstructed base course, 55,986 sq.yd. broken stone base course "A," 135,044 sq.yd. broken stone base course "B" and 191,311 sq.yd. bituminous macadam penetration. W. P. Moore, ch. engr.

O., Dayton—Until Aug. 11, by Comrs. Montgomery Co., paving 1.2 mi. Bessie Little Rd., 20 ft. wide. About $65,000. P. S. Bookwalter, co. surv. Noted July 1.

O., Jackson—Until Aug. 12, by F. D. Ewing, dir. Pub. Serv., furnishing labor and material improving Pearl St. from east line of Bridge St. to junction of Pearl and South Sts., brick with cement curbing.

Mich., Lapeer—Until Aug. 17, by Bd. Rd. Comrs. Lapeer Co., grading, draining and surfacing 2.993 mi. State Trunk Line Rd. 21-12, 16 ft. wide, involving 14,274 cu.yd. earth excav., 28,093 sq.yd. gravel surface, 135 cu.yd. pipe culverts and 604 lin.ft. concrete in culverts.

Mich., Ontonagon—Until Aug. 13, by Bd. Rd. Comrs. Ontonagon Co., grading, draining and surfacing 2.856 mi. State Trunk Line Rd. 68-1, Sect. A; 16-20 ft. wide, involving 26,981 sq.yd. concrete, bituminous concrete, waterbound or bituminous macadam 6,226 cu.yd. earth excav. State Highway Dept., Lansing, engrs.

Mich., Saulte Ste. Marie—Until Aug. 17, by Rd. Comrs. Chippewa Co., grading, draining and surfacing 3.084 mi. State Trunk Line Rd. 25-16, 16 ft. wide, involving 7,682 cu.yd. earth excav., 28,953 sq.yd. gravel or stone gravel, 517 lin.ft. pipe culverts, 158 cu.yd. concrete in culverts. State Highway Dept., Lansing, engrs.

Illinois—Until Aug. 11, by State Highway Dept., Springfield, paving 3,000 ft. highway Route 1, Sect. B, Macon Co., 16 ft. wide, involving 5,333 sq.yd. concrete pavement, 792 cu.yd. excav. and 1,908 bbl. cement, cost, $13,091; 4,000 ft. Route 5, Sect. I, Shelby Co., 16 ft. wide, 7,111 sq.yd. concrete, 3,088 cu.yd. excav., 12.7 cu.yd. Class "A" concrete and 2,564 bbl. cement, $20,002; 6,696 ft. Route 5, Sect. I, Green Co., 24 ft. wide, 5,486 cu.yd. excav., 60.9 cu.yd. Class "A" concrete, 4,475 lb. reinforcing steel and 89 bbl. cement, $7,368; 2,102 ft. Route 10, Sect. J, Greene Co., 24 ft. wide, 5,826 cu.yd. excav., 24.5 cu.yd. Class "A" concrete, 1,900 reinforcing steel and 36 bbl. cement, $5,597; 2,159 ft. Route 1, Sect. D, Morgan Co., 16 and 18 ft. wide, 4,016 sq.yd. concrete, 1,460 cu.yd. excav., 1,496 bbl. cement, $13,625; Vandalia-Cairo Highway, Federal Aid Project 14, 1.81 mi. Sect. 9 A, Jackson Co., 15,316 cu.yd. excav., 6.27 mi. Sect. 10 A, Jackson and Union Counties, 85,280 cu.yd. excav., 836.4 cu.yd. Class "A" concrete, 82,900 lb. reinforcing steel and 1,222 bbl. cement, 5.22 mi. Sect. 11 A, Union Co., 63,570 cu.yd. excav., 524.5 cu.yd. Class "A" concrete, 45,350 lb. reinforcing steel, 765 bbl. cement, etc.; 5.8 mi. Carbondale-Marion Highway, Federal Aid Project 1, Sect. A, Williamson Co., 19 and 28 ft. wide, 47,788 cu.yd. excav., 472.2 cu.yd. Class "A" concrete, 33,450 lb. reinforcing steel and 683 bbl. cement; 4.12 mi. Mt. Vernon-Fairfield Highway, Federal Aid Project 16, Sect. 15 A, Jefferson Co., 30 ft. wide, 48,383 cu.yd. excav., 336.3 cu.yd. Class "A" concrete, 24,736 lb. reinforcing steel and 490 bbl. cement; 3.73 mi. Carbondale-Marion Highway, Federal Aid Project 1, Sect. 5 A, Jackson and Williamson Counties, 19 and 28 ft. wide, 88,580 cu.yd. excav., 823.6 cu.yd. Class "A" concrete, 70,990 lb. reinforcing steel and 571 bbl. cement; Freeport-Rockford Highway, Federal Aid Project 19, 0.39 mi. Sect. 18 A, 5,646 cu.yd. excav., 11.3 cu.yd. Class "A" concrete, 790 lb. reinforcing steel, 2.25 mi. Sect. 19 A, 32,168 cu.yd. excav., 95 cu.yd. Class "A" concrete, 7,362 lb. reinforcing steel and 139 bbl. cement, both 30 ft. wide, Stephenson Co.; Mt. Vernon-Fairfield Highway, Federal Aid Project 16, 7.2 mi. Sect. 16 A, Jefferson and Wayne Counties, 76,524 cu.yd. excav., 955.3 cu.yd. Class "A" concrete, 83,985 lb. reinforcing steel, 1,380 bbl. cement, etc., 2.22 mi. Sect. 18 A, Wayne Co., 60,845 cu.yd. excav., 108.4 cu.yd. Class "A" concrete, 9,680 lb. reinforcing steel, 159 bbl. cement, both 30 ft. wide; Quincy-Mt. Sterling Highway, Federal Aid Project 17, 6.85 mi. Sect. 1, 48,452 cu.yd. excav., 565.6 cu.yd. Class "A" concrete, 32,500 lb. reinforcing steel and 826 bbl. cement, 7.54 mi. Sect. 2, 110,874 cu.yd. excav., 1,180.7 cu.yd. Class "A" concrete, 106,370 lb. reinforcing steel, 1,725 bbl. cement, etc., both 30 ft., Adams Co.; Springfield-Danville Highway, Federal Aid Project 18, 3.07 mi. Sect. 20, 20 and 30 ft. wide, 39,498 cu.yd. excav., 319.3 cu.yd. Class "A" concrete, 25,490 lb. reinforcing steel, 469 bbl. cement, etc., 1.1 mi. Sect. 26, 30 ft. wide, 31,904 cu.yd. excav., both Sangamon Co. C. Older, ch. highway engr.

Wis., East End (Superior P. O.)—Until Aug. 14, by Douglas Co., grubbing, ditching and surfacing 12 mi. Pattison Park Trunk Rd. 35, 20 ft. wide. About $200,000. C. D. Caukey, co. engr.

Ia., Burlington—Until Aug. 13, by J. F. Weber, aud. Des Moines Co., grading, paving and draining 7.24 mi. Mt. Pleasant Rd. from West Burlington west to Middletown and on Agency Blue Grass Cutoff, 18 ft. wide. Work involves 35,536 cu.yd. earth excav., 77,364 sq.yd. concrete or brick pavement, 28,230 lin.ft. 6-18 in. drain tile, etc.

Ia., Keosaqua—Until Aug. 12, by Van Buren Co., improving 10.79 mi. country roads, involving 106,121 cu.yd. earth excav., 23,030 lin.ft. 6-12 in. tile and 30 tile intakes. J. W. Earley, Keosaqua, engr.

Ia., Knoxville—Until Aug. 10, by Comrs. Marion Co., improving 12.4 mi. various roads, involving 62,685 cu.yd. earth and 435 cu.yd. rock excav., 33,290 lin.ft. 6-12 in. tile, etc. W. M. MacGibbon, Knoxville, engr.

Minn., Walker—Until Aug. 12, by Cass Co. building 15 mi. Natl. Forest Rd. Project in Minnesota Natl. Forest, involving 58 acres grubbing, 119,823 cu.yd. grading, 185,692 cu.yd. overhaul, 15 mi. finishing earth road, 1,318 lin.ft. corrugated metal culverts, 6,786 cu.yd. clay surface, etc.

Kan., Leavenworth—Until Aug. 17, by Comrs. Leavenworth Co., grading and building culverts on 23.315 mi. Fort-to-Fort Highway, 18 ft. wide, cost $50,000; grading and building bridges and culverts on 7.9 mi. Fort-to-Fort Highway, Federal Aid Joint Project 52-A-B-D, Wyandotte and Leavenworth Counties, 18 ft. wide, $100,000. L. C. Clark, Leavenworth, co. engr. Noted July 22.

Kan., Olathe—Until Sept. 3, by Comrs. Johnson Co., resurfacing 6.09 mi. Old Santa Fe Trail, Federal Aid Project 20, 18 ft. wide, bituminous macadam. About $180,000. C. G. Payne, Palo, engr.

Kan., Oswego—Until Aug. 24, by city, furnishing labor and material improving various roads, involving 5,660 lin.ft. combined curb and gutter and 21,125 sq.yd. bituminous macadam, asphaltic concrete or brick. J. F. Wasket, clk.

Kan., Troy—Until Aug. 27, by Comrs. Doniphan Co., grading 6.103 mi. Pike's Peak Highway, Federal Aid Project 52, Sects. A-B-C, 18 ft. wide, also building 16 ft. span, with 20 ft. roadway and rein.-con. culvert on Sect. Z. About $61,000. D. Atkins, co. engr. Noted July 22.

Mont., Forsyth—Until Aug. 10, by Comrs. Rosebud Co., grading and graveling 10 mi. Federal Aid Project 114, 24 ft. wide, involving 24,470 cu.yd. common excav., 11,337 cu.yd. surfacing, 161 cu.yd. Class "A" and 33 cu.yd. Class "B" concrete in drainage structures, 8,407 lb. reinforcing steel, 11,364 ft. lumber, etc. About $75,000.

Missouri—Until Aug. 20 (change date), by State Highway Dept., St. Jo building .376 mi. Frederick Ave. Rd ft. wide, Federal Aid Project 94. A $30,998. Noted July 29.

Mo., New Madrid—Until Aug. 9, by Madrid Co., improving 19.3 mi. Sec State Rd., Project S. 18.93, 24 ft. w involving 75,685 cu.yd. earth excav., 2 cu.yd. borrow, 36.3 cu.yd. Class "B" 121.9 cu.yd. Class "C" concrete, 930 l 12-24 in. vitr. pipe culvert, etc. Cost $ 417. C. V. Hansen, highway engr.

Mo., St. Joseph—Until Aug. 20, by C Buchanan Co., improving State Rd., P ect 49. Sect. A involves grading and la tile under-drain on 20.02 mi. St. Jos Atchison State Rd., Sect. B, building verts and 5 bridges and Sect. C, conc paving, etc. J. D. Mohler, co. engr.; vertised in this issue. Noted July 29 un "Missouri."

Arkansas—Until Aug. 18, by Comrs. Rd Impvt. Dist. No. 4, Garland Co., at office State Highway Comn., Little Rock, bu ing 1.78 mi. bituminous macadam and 7 mi. gravel surfacing in Rd. Impvt. Dist Garland Co. Work involves 39,804 lin fence moving, 525 lin.ft. new fence building 25.23 acres clearing and grubbing, 7,3 cu.yd. solid rock, 11,750 loose rock, an 30,150 cu.yd. earth excav., 42,000 lb. rein forcing steel, 150 ft. steel truss bridge, 12 800 sq.yd. bituminous macadam and 11,3 sq.yd. gravel surfacing, etc. G. C. Smith Hot Springs, engr.

Tex., Groesbeck—Until Aug. 10, by Comrs. Limestone Co., improving 23.37 mi State Highway 14, in Groesbeck, Thornton and Gosse Dists., involving 25 acres clearing and grubbing, 101,000 cu.yd. earth borrow, 33,000 cu.yd. excav., 1,200 cu.yd. overhaul, 142,000 lb. reinforcing and 73,200 lb structural steel, 1,109 cu.yd. Class "A" 1,185 cu.yd. Class "B," 58 cu.yd. Class "C" and 14 cu.yd. 1:2:3 concrete, 39,914 cu.yd crushed stone hauled first ¼ mile and 215,000 cu.yd. crushed stone hauled additional ¼ mile, etc. J. E. Bradley, co. judge.

Oklahoma—Until Aug. 10, by H. Wood comr. Highways, Oklahoma, grading and graveling 21 mi. Jefferson Highway through McIntosh Co.

Col., Denver—Until Aug. 15, by city, paving 10 block Alley Paving Dist. 58, 16 ft wide, involving 9,800 sq.yd. concrete. About $25,000. J. B. Hunter, city engr. Noted Jan. 15.

Arizona—State Highway Comn., Phoenix, receiving bids building 15 mi. Old Trails Highway from Flagstaff to Williams, Coconino Co., involving 120,000 cu.yd. earth excav. and embankment.

Oregon—Until Aug. 10, by State Highway Comn., Salem, grading 7.86 mi. Haines Northpowder Sect. Old Oregon Trail, Baker Co., involving 63,000 cu.yd. excav.; gravel surfacing 5 mi. Oregon City Multnomah Co. Line Sect. Pacific Highway, Clackamas Co., 10,000 cu.yd. surfacing; gravel or rock surfacing 15 mi. John Day River Blalock Sect. Columbia River Highway, Gilliam Co., 32,000 cu.yd. surfacing; granite surfacing 6 mi. Green Springs Mountain Sect. Pacific Highway, Jackson Co., 9,360 cu.yd. surfacing; grading, graveling or rock surfacing 9.73 mi. Grantspass Pleasant Valley Sect. Pacific Highway, Josephine Co., 50,000 cu. yd. excav. and 15,600 cu.yd. surfacing; rock surfacing 7.25 mi. Toledo Newport Sect. Corvallis Newport Highway, Lincoln Co., 15,000 cu.yd. surfacing, 5 mi. West Sect. Corvallis Newport Highway, Benton Co., 10,000 cu.yd. surfacing, 12.8 mi. Cabbage Hill Deadman's Pass Sect. Old Oregon Trail, Umatilla Co., 24,000 cu.yd. surfacing; surfacing 9.02 mi. Mosier Rowena Sect. Columbia River Highway, Wasco Co., 15,800 cu.yd. surfacing. H. Nunn, state highway Engr.

Que., Three Rivers—Until Aug. 18, by city paving 3 streets, involving 41,250 ft. asphalt or concrete, 9,850 lin.ft. concrete curbing and 5,000 lin.ft. concrete sidewalks; paving 2 streets, 5,500 ft. 2 in. asphalt. About $255,000 and $16,300 respectively. A. Lambert, Three Rivers, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract paving Public Alleys 710 and 818, granite block to J. Landis, $11,084; Faulkland Terrace, to J. J. Lane, $13,964. Noted July 29.

Mass., Dorchester (Boston P. O.)—City received bids laying granite block pavement on Dudley St. from Alexander to Stoughton Sts., from De Stefano Bros., $28,812; J. McCourt Co., 46 Wait St., Brookline, $28,932; J. A. Singarella, 220 Devonshire St., Boston, $29,081.

Streets and Roads (Continued)

★**Conn., New Britain**—Amer. Hardware Corp., Franklin Sq., let contract for 3,000 sq.yd. 6 in. concrete pavement, at Corbin Lock Co., Plant, to J. H. Grozier Co., 721 Main St., Hartford.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract repairing with sheet asphalt Bway. and West 36th St., to Uvalde Asphalt Paving Co., 1 Bway., $45,835 and $23,611 respectively; East 82nd, East 51st and West 12th Sts., to J. L. Brusstar, Harlem River and 150th St., $37,171, $22,470 and $30,413 respectively. Noted July 22.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract repaving with asphalt block East 97th St., to Hastings Paving Co., 25 Broad St., $18,816; Mt. Morris Park, to Asphalt Constr. Co., 2197 Madison Ave., $62,072; with sheet asphalt Dykeman St., to Davney Asphalt Co., Inc., 438 East 91st St., $84,622. Noted July 15.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract repaving with sheet asphalt West 86th St. and with asphalt block, West 18th St., to Cleveland Trinidad Paving Co., Flushing, $33,868 and $20,931 respectively; with sheet asphalt 125th St., to Sicilian Asphalt Paving Co., 41 Park Row, $97,304; Bway., to Uvalde Asphalt Paving Co., 1 Bway., $267,378; with asphalt block, 86th St., to A. J. Kearns Co., $11,268. Noted July 29.

N. Y., New York—G. A. Whalen, comr. plant & structures, Municipal Bldg., received lowest 3 bids July 29, building footwalk flooring on north side of Williamsburg Bridge, from Diaz Constr. Co., $37,719; L. J. Rice, $43,511; C. Meade Co., 38 Park Row, $44,100. Noted July 22.

N. J., Jersey City—City received low bid paving Van Winkle and Seaview Aves., asphalt, from W. T. S. Crichfield, 85 Washington St., Hoboken. Noted May 20.

★**N. J., Morristown**—Bd. Freeholders Morris Co. let contracts improving 2.4 mi. Towaco-Lincoln Park Rd., also 2.2 mi. Boonton-Parsippany Rd., concrete, to Northern Constr. Co., 423 Amherst St., East Orange, $121,900 and $111,300 respectively; repairing 14,800 sq.ft. Mendham Rd., 1st section to be concrete surface, 2d, amiesite, to Gray Constr. Co., Franklin St., $130,000.

★**Pennsylvania**—State Highway Dept., Harrisburg, let contracts paving 2.635 ft. Route 133, Millbourne Boro. and Upper Darby Twp., 18-29 ft. wide, Delaware Co., also 7,441 ft. Routes 165 and 166, Bangor Boro., 18-33 ft. wide, Northampton Co., to C. E. Weed, Inc., Albany, N. Y., $36,084 and $110,673 respectively; 13,625 ft. State Aid Application 965, Derry Twp., 18 ft. wide, Westmoreland Co., to M. Bennett & Son, Indiana, $190,931., all 1 course rein.-con. Noted June 24.

Pa., Pittsburgh—City received bids July 26, grading, paving and curbing Woodville Ave. from Independence St. to Bankville Ave., from T. Cronin Co., 18th and Fox Sts., $58,739; J. H. McQuade Sons Co., Bakewell Bldg., $61,293; Booth & Flinn, Ltd., 1942 Forbes St., $66,936. Noted July 22.

Pa., Pittsburgh—City received bids July 26, (a) repaving Henderson St. from Federal to Carrie Sts., (b) improving roadways in Riverview Park, from M. O'Herron Co., South 1st and McKean Sts., (a) $18,577, (b) $61,780; J. J. Ryan, Pittsburgh, (a)$20,328; J. H. McQuade Sons Co., Bakewell Bldg., (a) $21,209; F. and F. Duilus, 40 Boundary St., (b) $65,581; G. S. White Co., Jenkins Arcade, (b) $65,690. Noted July 22.

★**Maryland**—State Rds. Comn., 601 Garrett Bldg., Baltimore, let contract building .79 mi. state highway through town of Elkton, Contr. CE-31, to Broad Creek Contg. Co., Elkton, $29,819. Noted July 22.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, received bids Aug. 2, paving .11 mi. Cathedral St., sheet asphalt, Contr. BC-32, from Baltimore Asphalt Block & Tile Co., Laurens and Monroe Sts., $13,247 for 6 in. concrete base, $14,275 for 8 in. concrete base. Noted July 22.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, received bids Aug. 2, building .44 mi. state highway through town of Cambridge, Contr. D-14, .3 mi. through town of Hurlock, Contr. D-21 and .44 mi. through town of Sharptown, Contr. WI-12, from Peninsula Constr. Co., Bridgeville, Del., $15,657, $11,903 and $18,035 respectively; .67 mi. through town of Taneytown, Contr. CI-30, concrete, from A. S. Sedeli, Continental Bldg., Baltimore, $28,253.

W. Va., Charleston—City received bids paving (a) 2 blocks Virginia St., (1) wood block, (2) sheet asphalt, (b) 4 blocks Court St., (c) alley west of Ruffner Ave., from Loescher & Wiley, Charleston, (a1) $27,000; Fogle & Co., Charleston, (a1) $26,000; (a2) $22,000; (b) $50,000; (c) $1,000. Noted July 8.

★**W. Va., Winfield**—Comrs. Putnam Co. let contract grading and draining 2 mi. road Union Dist., to J. O. McDermott, Ambrosia, $28,065. Noted July 22.

★**North Carolina**—State Highway Comn., Raleigh, let contract gravel surfacing 3.58 mi. Federal Aid Project 109, 16 ft. wide, Burke Co., to C. E. Teague, Columbia, S. C., $49,945. Noted Jan. 1.

★**North Carolina**—State Highway Comn., at div. office, Ashville, let contract top soiling 10.3 mi. Federal Aid Project 78, 16 ft. wide, Rutherford Co., to Ross Bros., Fredericksburg, Va. Noted July 1.

★**N. C., Mocksville**—City rejected bids paving Depot and Main Sts. asphalt on broken stone base. Work will be done by day labor under supervision of N. S. Millican, engr., Mocksville. About $60,000.

★**O., Canton**—Comrs. Stark Co. let contract improving 3 mi. Alliance-Limaville Rd., with 4 in. course waterbound slag overlaid with 3 in. course bituminous filling, to Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria. About $92,000.

O., Cleveland—Bd. Comrs. Cuyahoga Co. received bids grading 26,000 cu.yd. Pleasant Valley Rd., from Conners & Nelson, Berea, $23,910; H. L. Carr, Frederick Bldg., Cleveland, $25,890.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 2.558 mi. State Trunk Line Rd. 12-13, Machinac Co., 16 ft. wide, involving 8,006 cu.yd. earth excav., 23,997 sq.yd. gravel surface, 10,818 yd. station overhaul, 106 lin.ft. pipe culverts, 43.4 cu.yd. concrete in culverts, etc., to Rd. Comrs. Machinac Co., St. Ignace, $35,513; 3.007 mi. State Trunk Line Rd. 12-17, Schoolcraft Co., 16 ft. wide, 12,149 cu.yd. earth excav., 28,218 sq.yd. gravel surface, 57,525 yd. sta. overhaul, to Rd. Comrs. Schoolcraft Co., Manistique $17,148.

★**Michigan**—State Highway Dept., Lansing, let contact grading, draining and surfacing 6.232 mi. Federal Aid Project 26, Sects. B and C, 16 ft. wide, Antrim Co., involving 22,905 cu.yd. earth excav., 58,500 sq.yd. gravel, etc., to C. Bye, 442 Webster St., Traverse City.

★**Mich., Monroe**—Comrs. Monroe Co. let contract breaking up old bituminous concrete, widening grade and placing macadam on 4.41 mi. State Trunk Line Rd. 10-27, involving 17,248 cu.yd. earth excav., etc., to R. D. Baker Co., 1454 Penobscot Bldg., Detroit, $126,557. Noted July 15.

Ill., Chicago—Cook Co. received bids paving Sect. 61, 15-D, Route 9-C, Canfield Rd., involving (a) 8,293 sq.yd. portland cement concrete, (b) 6,416 sq.yd. earth shoulders, (c) 453 cu.yd. excav., (d) 202 ft. 10 in. vitr. tile, (2) Sect. 66, 15-D, Archer Ave., (a) 48,871 sq.yd. concrete, (b) 28,320 sq.yd. earth shoulders, (c) 21,257 cu.yd. excav., (d) 292 cu.yd. earth borrow, (e) 54 ft. 12 in. tile sewer pipe, (f) 222 ft. 18 in. tile, (g) 104 ft. 24 in. tile, (h) 180 ft. 30 in. tile, (i) 558.8 cu.yd. concrete in bridges, (j) 50,658 lb. reinforcing steel, etc., from Standard Paving Co., 326 West Madison St., (1a) $3.87 per sq.yd., (1b) $0.35, (1c) $2, (1d) $2, total cost, $36,121; States Constr. Co., Chicago, (1a) $3.50, (1b) $0.15, (1c) $1.75, (1d) $1.25, $31,500; J. A. Sackley Co., 133 West Washington St., (2a) $3.75, (2b) $0.15, (2c) $1.50, (2d) $1.50, (2e) $2, (2f) $2.50, (2g) $3, (2h) $4, (2i) $35, (2j) $0.10, etc., $248,384; J. A. McGarry & Co., 189 West Washington St., (2a) $3.81, (2b) $0.17, (2c) $1.05, (2d) $2, (2e) $1.65, (2f) $2.25, (2g) $3.25, (2h) $6.05, (2i) $52, (2j) $0.07, etc., $250,548; Marquette Constr. Co., 133 West Washington St., (2a) $3.48, (2b) $0.15, (2c) $1.50, (2d) $1.50, (2e) $3, (2f) $4, (2g) $6, (2h) $10, (2i) $42, (2j) $0.09, etc., $241,434.

Ill., Chicago—Bd. Local Impvt., 207 City Hall, received bids July 20, paving (1) Christiana Ave. from Foster St. to point 607 ft. south, (2) East 52nd St. from Cottage Grove Ave. to Drexel Blvd., (3) North Lamon Ave. from Diversey St. to Oakdale Ave., (4) George St. from Crawford to Springfield Aves., (5) sections of Granville, Rosemont, Maplewood, Campbell and Artesian Aves., (6) sections of Grace, Warwick, Waveland, Patterson, Lamon, Lavergne, Le Claire, Laramie, Lockwood and Long Aves., from R. F. Conway Co., 133 West Washington St., (1) $14,019, (2) $11,780, (3) $22,594, (4) $41,658, (5) $110,650, (6) $410,865; White Paving Co., 17 North La Salle St., (1) $14,101, (2) $11,867, (3) $22,848, (4) $42,190, (5) $112,606, (6) $410,635; Amer. Asphalt Paving Co., 133 West Washington St., (1) $14,174, (2) $11,757, (3) $22,749, (4) $41,314, (5) $118,987, (6) $411,769. Noted July 22.

★**Ill., Chicago**—Bd. Local Impvts., 207 City Hall, let contracts paving (1) North Waller Ave. from Le Moyne St. to West North Ave., (2) alley between Blackhawk, Elk, Paulina and Bauman Sts., (3) alley between Congress, Harrison, Keeler and Kildare Sts., (4) alley between Leavitt St., Oakley Blvd., Wilmot and Milwaukee Aves., (5) alley between Van Buren and Congress Sts., Western and Campbell Aves., (6) alley between Wrightwood, Altgeld, Sawyer and Spaulding Aves., (7) alley between Milwaukee Ave., Augusta and Will Sts., (8) alley between Congress and Harrison Sts., Kilpatrick and Cicero Aves., (9) Lamon Ave. from Oakdale to Berry Sts., (10) Loomis St. from West 22nd St. to point 2,048 ft. south, (11) Loomis St. from point 500 ft. north of West 90th to West 93rd Sts., (12) West 105th St. from Wentworth Ave. to Chicago & Western Indiana R.R. right of way, (13) North Parkside Ave. from Le Moyne St. to West North Ave., (14) South Park Av. from East 91st to East 95th Sts., (15) South Leavitt St. from 136 ft. north of West 18th to West 22nd Sts., (16) South Avers Ave. from Roosevelt Rd. to West 14th St., (17) East 50th St. from Ellis to Woodlawn Aves., (18) North Leamington Ave. from West North Ave. to Hirsch St., (19) North Lorel Ave. from West North Ave. to Hirsch St., (20) West 104th St. from Wentworth Ave. to point 970 ft. west, (21) Trumbull Ave. from Augusta St. to West Grand Blvd., (22) Winona St. from North Clark St. to Bway., (23) sections of School, Henderson and Melrose Sts., Le Claire, La Vergne and Lamon Aves., (24) alley between East 43rd St., St. Lawrence and Champlain Aves., (25) alley between Roosevelt Rd., Ashland Ave., Washburn and Paulina Sts., (26) alley between Douglas Blvd., Kedzie Ave., West 14th and Troy Sts., (27) Bernard St. from Waveland to Elston Aves., (28) California Ave. from Devon Ave. to Albion St., (29) North Fairfield Ave. from Peterson to Granville Aves., (30) West 50th Pl. from Hoyne to Western Aves., (31) North Harding Ave. from Augusta to Division Sts., (32) Keystone St. from West End to Park Aves., (33) Moffatt St. from Western Ave. to Rockwell St., (34) North Oakley Blvd. from Berteau to Collom Sts., (35) Dakin, Byron, Berenice and Grace Sts. from Austin Ave. to point west of Meade St. and Meade St. from Grace St. to Irving Park Blvd., (36) sections of Lowell, Kildare, Tripp, Keeler, Kiona, Kelso, Kasson and Leland Sts., to Amer. Asphalt Paving Co., 133 West Washington St., (1) $10,668, (13) $10,568, (16) $28,664, (17) $26,648, (18) $27,891, (19) $26,717, (21) $10,029, (23) $171,999, (31) $22,365, (32) $7,700; Central Paving Co., 179 West Washington St., (2) $2,325, (4) $12,983, (6) $8,871, (7) $7,970; J. Dillon & Co., 178 West Washington St., (3) $5,107, (5) $6,607, (8) $6,058, (25) $9,252, (26) $5,969; R. F. Conway Co., 133 West Washington St., (9) $21,204, (15) $29,946, (22) $45,818, (27) $12,376, (28) $28,904, (29) $22,394, (30) $31,222, (33) $23,921, (34) $11,641, (35) $92,850, (36) $106,823; Ready & Callaghan Coal Co., 133 West Washington St., (10) $48,175; J. A. McGarry & Co., 189 West Madison St., (11) $52,769; Farr Bros. Co., 356 West 11th St., (12) $24,328, (20) $19,323; J. A. Sackley Co., 133 West Washington St., (14) $57,408; Contg. & Material Co., 3219 South Michigan Ave., (24) $4,000. Noted July 15 and 22.

Wisconsin—State Highway Comn., at div. office 2, Stephenson Bldg., Milwaukee, received bids July 26, grading and paving Milwaukee-Fond du Lac Rd., Federal Aid Project 160, Menomonee Falls, Waukesha Co., involving (a) 11,798 cu.yd. earth excav., (b) 200 cu.yd. rock excav., (c) 107 cu.yd. concrete in culverts, (d) 10,841 lin.ft. curb and gutter, (e) 10,183 sq.yd. concrete surfacing, 18 ft. wide, (f) 20,339 sq.yd. concrete surfacing, full width, (g) 200 ft. 12 in. vitr. pipe, (h) 732 ft. 18 in. vitr. pipe, (i) 50,940 lb. wire mesh, (j) 4,884 lb. reinforcing steel, etc., from G. Czerwinski, 309 Mitchell St., Milwaukee, (a) $1.25 per cu. yd., (b) $4, (c) $30, (d) $1.19, (e) $1.88, (f) $1.90, (g) $2.25, (h) $3.50, (i) $0.055, (j) $0.07, etc.; C. Johnson, Oshkosh, (a) $1.30, (b) $5, (c) $28, (d) $1.20, (e) $2.03, (f) $2, (g) $2.50, (h) $3.50, (i) $0.07, (j) $0.06, etc. Noted June 24.

Ia., Osceola—City received bids paving 2 mi. various streets, 40 ft. wide, asphalt, from L. L. Beye, Eldorado, $152,544; Amer. Paving Co., $155,443; Allied Contr., Inc., 4616 Harmon St., Omaha, $160,230. Noted July 1.

Streets and Roads (Continued)

★**Minn., Brainerd**—Crow Wing Co. let contract grading 13.3 mi. Job. 1908, State Rd. 1, 24 ft. wide, to Franzen Bros., Palisade, $27,120. Noted July 29.

★**Minn., Brainerd**—Crow Wing Co. let contract building 4.5 mi. Co. Job. 1910, State Rd. 8, involving 33 acres clearing and grubbing, 67,529 cu.yd. excav., 9,770 cu.yd. overhaul, etc., to A. P. Chenevert, Outing, $45,261.

Minn., Fergus Falls—Ottertail Co. let contract building 8.45 mi. Federal Aid Project 160, Job 2,002, involving 44,000 cu.yd. excav. 610 lin.ft. 5-18 in. concrete culverts, loading and hauling 5,500 cu.yd. c.ay surfacing, one 6 x 48 ft. concrete culvert, one 60 ft. steel bridge, etc., also 9 mi. Federal Aid Project 159, Job 2,001, 33,000 cu. yd. excav., 742 lin.ft. 15-18 in. concrete culverts, etc., to D. Daggett, Frazee, $75,981 and $43,156 respectively. Noted June 17.

★**Minn., Mora**—Kanabec Co. let contract grading and graveling 16 mi. Federal Aid Project 9, State Rd. 2, involving 98,131 cu. yd. excav., 5,323 cu.yd. hand ditch, 2,623 lin.ft. 12-36 in. pipe, 26,857 cu.yd. gravel surfacing material and 1,950 lin.ft. 8 in. tile, to J. J. and M. S. Mergens, 403 Kasota Block, Minneapolis. About $139,000. Noted June 24.

★**Minn., Redwood Falls**—Comrs. Redwood Co. let contract graveling 9 mi. Federal Aid Project 13, State Rd. 10, also 7 mi. Federal Aid Project 109, State Rd. 5, both 24 ft. wide, to C. H. Windsor, Montevideo, $16,116 and $22,212 respectively. Noted June 29.

Minn., St. Paul—City received bids July 26, paving Fairfield Ave. between Robert and State Sts., State St. between Fillmore Ave. and St. Lawrence St. and Indiana Ave. btween Robert and State Sts., 30 ft. wide, from White Constr. Co., 203 Flatiron Bldg., $73,000; Fielding & Shepley, Griggs and Fuller Sts., $73,552.

★**Kan., Cottonwood Falls**—Chase Co. let contract grading and building culverts on 2.898 mi. New Santa Fe Trail, Federal Aid Project 47 A, 18 ft. wide to Meade Constr. Co., Abilene, $22,792. Work involves 18,000 cu.yd. earth excav., 5.7 ton steel and 300 cu.yd. Class "A" concrete.

★**Kan., Garden City**—Finney Co. let contract paving, grading and building bridges on 10.104 mi. Sante Fe Trail, Federal Aid Project 22, Sects. F-G-H-I, 18 ft. wide, 2 course concrete, to M. R. Ammermann, Wichita, $441,153.

Missouri—State Highway Dept., Albany, received bids July 23, building 8.86 mi. Sect. A, Jefferson Highway, 24 ft. wide, Federal Aid Project 54, Gantry Co., from Land Grading Co., Ballinger Bldg., St. Joseph, $47,942; Cook & O'Brien, Kansas City, $48,947; Schmidt-Daily, Kansas City, $49,100; 4.93 mi. Sect. B, from Universal Constr. Co., St. Joseph, $147,328. Noted July 8.

★**Mo., Kansas City**—City let contract grading, widening and repaving Main St. from Hunter Ave. to 39th St., including grading of parkway and resetting of trees, involving 19,035 sq.yd. sheet asphalt, to Parker Washington Co., 2309 Pennsylvania St., at $5.84 per sq.yd., total $111,164.

★**Tex., Denton**—Denton Co. let contract gravel surfacing Highways 40 and 40 A, Federal Aid Project 143, to McElwrath & Rogers, Corsicana, $139,320.

★**Tex., Fairfield**—Freestone Co. will grade and drain 14.67 mi. Highway 32, Federal Aid Project 122 S, 16 ft. wide. Cost, $26,658. Work will be done by day labor. Noted June 10.

★**Tex., La Grange**—Fayette Co. let contract grading Highway 3, Federal Aid Project 37, to S. L. Robertson, $72,829.

★**Tex., Wichita Falls**—Wichita Co. let contracts improving 8.81 mi. Highway 2, Federal Aid Project 3, and 4.68 mi. Highway 61, Federal Aid Project 61, concrete, to Potts & Prentice, $455,365 and $193,480 respectively.

★**Nevada**—State Highway Comn., Carson City, let contract paving 1.8 mi. road from Gardnerville to Minden, Douglas Co., to Bishop & Griscom, Reno, $38,219.

Wash., Seattle—City let contract paving (1) 24th Ave., et al, involving 3,525 sq.yd. 7 in. concrete paving and 3,525 lin.ft. type "R" armored concrete, (2) Republican St., et al, 2,475 lin.ft. type "C" armored concrete, 5,800 sq.yd. asphalt paving and 1,475 sq.yd. concrete walks, (3) 25th Ave. N. W., et al, 10,380 sq.yd. concrete walks, 3,000 lin.ft. 3 in. sewer pipe and 1,000 lin.ft. 3 in. tile drain, from F. N. Badolato & Co., Green Bldg., (1) $39,219, (2) $35,175; Jahn & Bressi, New York Bldg., (1) $39,818; R. G. Stevenson, 1327 Ewing St., (1) $40,450; J. L. Smith, Pioneer Bldg., (2) $34,578, (3) $22,154; Sparger Constr. Co., Colman Bldg., (2) $35,689; D. H. Traphagen, Walker Bldg., (3) $23,153; Meade & Alpin, 1255 John St., (3) $26,190.

Wash. Seattle—King Co. received bids July 26, grading and graveling 2 mi. Shanahan-Glen Acres Rd., 20 ft. wide, involving 38,000 cu.yd. earth excav., 7 acres clearing, 5½ acres grubbing and 3,000 cu.yd. gravel, from Hansen & Haugl, Seattle, $41,800; H. Pederson, Alaska Bldg., $47,000; W. A. Kupoff, L. C. Smith Bldg., $47,625.

Oregon—State Highway Comn., Portland, received bids July 20, grading 11.2 mi. Goldson Sect., Lane Co., involving 97,500 cu.yd. excav., from Washburn & Hall, Bway. Bldg., Portland, $121,820; Lane Co. Court, Eugene, $133,793; Rojette, Fobert & Winters, $155,345.

★**Oregon**—State Highway Comn., Portland, let contract grading and rocking 7.6 mi. McMinnville-Tillamook Highway, Polk Co., involving 12,300 cu.yd. excav., 20,000 cu.yd. surfacing, to Elliott & Scoggin, McKay Bldg., Portland, $98,255; graveling 14.8 mi. Columbia River Highway, Sherman Co., 37,500 cu.yd. surfacing, to Porter & Conley, Ry. Exch. Bldg., Portland, $108,000; building rein.-con. culverts between Comstock and Lane Co. line, Douglas Co., 105 cu.yd. concrete, 9,000 lb. metal reinforcement, 20 ft. 24 in. corrugated iron pipe and 84 ft. 12 in. concrete pipe, to S. L. Godard, Cottage Grove, $4,461.

Ore., Portland—City received bids July 21, grading and building sidewalks on (a) 92nd St. S. E. from 45th Ave. S. E. to 68th Ave. S. E., (b) paving Russett St. from Vancouver to Union Aves., (1) asphaltic concrete No. 1, crushed rock base in roadway, (2) concrete No. 3, in roadway, from S. Simonsen, (a) $17,028; Cochran Bros., 415 South Syracuse St., (a) $17,917, (b2) $23,238; Warren Constr. Co., Journal Bldg., (b1) $22,881.

★**Cal., Napa**—Comrs. Napa Co. let contract building 7 mi. concrete highway from Trubody Sta., to R. J. Blanca, 1713 Sutter St., Vallejo, $130,205.

★**B. C., Delta**—Municipality let contract paving 5.07 mi. Ladner Trunk Rd., 14 ft. wide, bituminous macadam on existing macadam base, to Palmer Bros., 929 Main St., Vancouver. About $70,000.

★**B. C., South Vancouver**—City let contract subgrading and paving with asphalt on 6 in. concrete base, 1.26 mi. Kingsway from Earle to Clark Sts., 14 ft. wide, to Cotton Co., Ltd., False Creek Yards, Vancouver. About $50,000.

Railways

PROPOSED WORK

Michigan—Street Ry. Comn., 410 City Hall, Detroit, ordered plans and estimates made for excavating, laying foundation, ties, rails and special work for 12 mi. double track street railway on Joy Rd., Clairmont, Owen and Holbrook Aves. from Grand River to Conant Aves. About $800,000. W. C. Markham, 410 City Hall, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Michigan**—Detroit United Ry., Interurban Bldg., Detroit, will build extensions on Saginaw, Chamberlain, Edison and Glendale Aves., double track connection to existing line on Saginaw and Oakland Aves., South Blvd., Sanford and East Pike, with loop connecting with existing lines on Saginaw St. About $450,000. Work will be done by day labor.

★**Michigan**—Street Ry. Comn., 410 City Hall, Detroit, let contract furnishing f.o.b. Detroit, fifty-five thousand 6 in. x 10 in. x 6 ft. 8 in. seasoned white oak ties, to Allied Sales Corp., Montgomery, Ala., at $2.74 each, total $150,700. Noted July 15.

Excavation and Dredging

PROPOSED WORK

Tenn., Memphis—Ditch—Big Creek D. D., Shelby Co., having plans prepared by Gaines & Carlisle, engrs., Falls Bldg., Memphis, enlarging Big Creek by building 18 mi. ditch, 10 ft. deep, 26 ft. bottom, also 21 mi. laterals, 4-8 ft. wide, involving 260,000 cu.yd. dry earth excav. and 860,000 yd. floating dredgework in old channel. About $220,000.

Tenn., Memphis — Levee — Horn Lake Levee & D. D., Shelby Co., having plans prepared by Gaines & Carlisle, engrs., Falls Bldg., Memphis, for 12 mi. levee.

Ill., East St. Louis—Levee—East St. Levee & Sanitary Bd., 225 Collinsville Ave., authorized $300,000 bond issue to build levees and improve drainage system, in and in vicinity. H. S. Kramer, East St. Louis, engr.

Ia., Des Moines—Levee—Des Moines Co. plans to build 3 to 5 ft. addition to levee in Dist. 16 between here and Louisa Co. About $500,000. Engineer not selected.

Ia., Mason City—Drainage—Cerro Gordo Co. rejected bids received July 20, building Joint D. D. 1, involving 131,000 ft. 6-40 in. tile. Cost to exceed $25,000. New bids in October. Noted July 8.

Wyoming—Irrigation—W. M. Carpenter, Security Bldg., St. Louis, Mo., organized syndicate to irrigate 40,000 acres in Green River Valley, Wyo. Work includes laterals, headgate and 18 mi. canal, 4 ft. deep, 14 ft. bottom and 30 ft. top width. H. Philips, 201-202 Fullerton Bldg., St. Louis, Mo., consult. engr.

Ariz., Phoenix — Irrigation — Paradise-Verde Irrigation Dist. plans to build irrigation and power system. Cost between $16,000,000 and $20,000,000. A. L. Harris, Phoenix, engr.

BIDS DESIRED

Ia., Clarion—Ditch—Until Aug. 9, by D. H. Eyler, aud. Wright Co., building Drain Ditch 187, in Blaine and Vernon Twps., involving 65,294 cu.yd. excav., 41,670 ft. 6-28 in. tile, 240 ft. 12-15 in. culverts. About $25,000.

Minn., Albert Lea—Ditch—Until Aug. 18, by F. Tavis, aud. Freeborn Co., building County Ditch 34, involving 70,044 ft. 6-42 in. tile, 115 junction laterals, 48 catch basins, etc. About $32,000. J. H. Severson, Albert Lea, engr.

Ore., St. Helens—Dike, etc.—Until Aug. 14, Rainier D. D., Columbia Co., building 1,400 ft. dike, 33,000 yardage and 1,100 ft. ditch, 1,750 yardage and clearing 6 scores on right of way. G. J. Poysky, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ill., East St. Louis**—Canal and Levees—East Side Levee & Sanitary Bd., 225 Collinsville Ave., let contract building intercepting canal and levees, Project 12, to A. V. Wiles and H. J. Sternberg, Title Guarantee Bldg., St. Louis. About $1,500,000. Noted Feb. 5.

★**Minn., Mankato**—Ditch—Blue Earth Co. let contract for tile work building Ditch 57, to F. F. Esser, Mankato, $163,000; open work, to Mulgrew & Sons, Dubuque, Ia., $15,000.

Industrial Works

PROPOSED WORK

Mass., Cambridge—G. Lawrence, Inc., 24 Cambria St., having plans prepared by W. T. Littlefield, archt., 9 Hamilton Pl., Boston, for 1 story, brick and steel plant.

Mass., Worcester — H. W. Trulson, 35 Berksmans St., soon lets contract building 2 story, 90 x 115 ft., concrete and steel garage, rein.-con. flooring, concrete foundation, on Pleasant St. About $150,000. E. T. Chapin, 340 Main St., archt.

R. I., East Greenwich—Greenwich Mills, Division St., soon lets contract building 4 story, 80 x 90 ft., brick and mill construction addition to plant, concrete foundation. About 50,000. Private plans. Noted July 29.

R. I., Woonsockett—W. F. Fontaine, archt., Federal Bldg., soon lets contract building 2-story, 135 x 250 ft., brick and mill construction addition to plant, concrete foundation, for Lafayette Worsted Co., Hamlet Ave. About $200,000.

Conn., Bridgeport—A. Aldo, 1699 Madison Ave., soon lets contract building 1 story, 100 x 110 ft., brick and steel garage, cement concrete flooring, stone foundation, on North Ave. and Sedgwick St. About $50,000. F. A. Cooper, 1024 Main St., archt. Noted July 29.

Conn., Bridgeport—Amer. Fabrics Corp., Connecticut Ave. and Waterman St., soon lets contract building 1 story, 60 x 166 ft., brick and steel plant, cement flooring and foundation. About $50,000. Private plans.

Conn., Hartford—D. A. Guerriero, archt., 647 Main St., soon lets contract building 2 story, 80 x 80 ft., brick, concrete and steel garage, rein.-con. flooring, concrete foundation, on Morgan St., for D. D'Amico, 503 Albany Ave. About $50,000. Noted July 22.

Conn., Hartford—F. C. Walz, archt., 407 Trumbull St., soon lets contract building 1 story, 100 x 150 ft., brick, concrete and steel garage, rein.-con. flooring and foundation, for A. Goldstein, Maple Ave. About $100,000. Noted Feb. 5.

Industrial Works (Continued)

Conn., Hartford—B. A. Sellew, archt. and engr., 223 Asylum St., soon lets contract building 3 story, 43 x 90 ft., brick, concrete and steel plant, rein.-con. flooring, concrete foundation, for Hartford Mattress Co., Kilbourn St. and Blvd. Abou $50,000. Noted July 29.

Conn., Hartford—Backoff, Jones & Cook, archts., Union Bldg., Newark, N. J., soon let contract building 2 story, 60 x 100 ft., brick and mill construction factory, rein.-con. flooring, concrete foundation, for Home Tourist Candy Co., c/o architects. About $50,000. Noted May 27.

Conn., New Haven—Fritzell Brass Fdry. Co., 33 Chestnut St., having plans prepared by Fletcher-Thompson, Inc., archts. and engrs., 1089 Broad St., Bridgeport, remodeling old plant of International Leather & Belting Co., on Middletown Ave. for its own use.

N. Y., Buffalo—H. E. Plumer, engr., Ellicott Sq. soon lets contract building 10-story 82 x 100 ft. brick and rein.-con. warehouse for Knowlton Warehouse Co., 93 Perry St.

N. J., Edgewater—United States Aluminum Co. plans to build large addition to plant.

N. J., Jersey City—Cotton Textile Co., 383 Cator Ave., plans to construct 4 concrete factory buildings. About $50,000.

N. J., Jersey City—J. T. Ryerson & Sons, 230 Westside Ave., plans to build addition to plant, corrugated iron and steel, concrete foundations. About $50,000.

N. J., Newark—Patent Spring Bed Co., 235 Waverly St., having plans prepared by J. Tomley, archt., c/o owner, altering 3 story, 15 x 155 ft., concrete and brick factory, at 201 Norfolk St.

N. J., Trenton—J. Ashton, Jr., 13 North Warren St., plans to build 1 story, 100 x 140 ft. warehouse with 15 x 60 ft. wing, concrete and steel, on New York Ave. About $60,000. Karno-Smith Co., Broad St. Bank Bldg., engrs.

Md., Baltimore—See "Sewers."

Md., Baltimore—Coca Cola Co., Candler Bldg., Atlanta, Ga., plans to build rein.-con. and steel factory on Fort Ave. near Stephens Ave., here. About $1,000,000. C. H. Candler, in charge.

O., Cleveland — Amer. Turpentine Co. plans to build 3 story, 100 x 180 ft. factory, also 1 story, 24 x 40 ft. boiler house, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, along tracks of Beltline Ry. About $200,000. H. D. Tremmel, 136 Engineers Bldg., secy. Architect's name withheld.

O., Cleveland—Baker, Rauch & Lang Co., 2180 West 25th St., soon lets contract building 4 story, 65 x 110 ft., brick and steel factory, brick foundation, on West 25th St. and Chatham Av. About $100,000. G. S. Rider & Co., Century Bldg., engrs. and archts.

O., Cleveland—Cleveland Ry. Co., Leader-News Bldg., soon lets contract building 1 story, 37 x 128 ft. rein.-con., steel and brick garage and machine shop, rein.-con. flooring, concrete foundation, on Harvard Ave. About $60,000. G. Radcliffe, genl. mgr. D. W. Morrow, 4500 Euclid Ave., archt.

O., Cleveland — Kaynee Co., 6925 Aetna Rd., soon lets contract building 1 story, 60 x 180 ft. box factory and garage, brick and steel, brick foundation, on Aetna Rd. and Bway. About $60,000. E. C. Seitz, treas. Lockwood-Green & Co., Bangor Bldg., engrs. and archts.

O., Cleveland—Ohio Bronze Powder Co., 1120 East 152nd St., plans to build 2 story, rein.-con., steel and brick factory, rein.-con. flooring, concrete foundation. About $50,000. G. F. Glass, pres. Private plans.

O., Cleveland—Republic Electric Mfg. Co., 1820 East 18th St., opens bids about Aug. 8, building 3 story, 50 x 50 ft., rin.-con., steel and brick factory and office, rein.-con. flooring, concrete foundation, on East 18th St. and Chester Ave. About $100,000. L. Griesser, pres. J. M. Dyer, Amer. Trust Bldg., archt.

O., Cleveland—U. S. Molding Machine Co., 968 East 69th St., plans to build 1 story, brick and steel addition to factory, brick foundation. About $50,000. Architect not selected.

Mich., Detroit—Smith, Hinchman & Grylls, archts. and engrs., 710 Washington Arcade, soon let contract building 2 story, 60 x 117 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, for Zenith Carburettor Co., Hart Ave. About $70,000.

Ill., Chicago—A. S. Alshuler, archt., 28 East Jackson St., opens bids soon building 2 story, 90 x 115 ft., brick and timber factory, concrete foundation, at 108 South Desplaines St., for N. B. Austin Co., 700 West Jackson St. About $175,000.

Ill., Chicago—Commonwealth Edison Co., 72 Adams St., having plans prepared for 2 reactor buildings, one 15x350 ft. and other 20 x 200 ft., rein.-con.

Ill., Chicago—J. J. Neebe, archt., 2522 Aubert Ave., opens bids about Aug. 15, building 1 and 2 story, 100 x 108 ft. brick and timber garage and salesroom, rein.-con. flooring, concrete foundation, on Western St. near Montrose St., for A. Feasel, c/o architect. About $75,000.

Ill., Chicago—F. H. Hill Co., Washington and Morgan Sts., had plans prepared by Woltersdorf & Bernard, archts., 38 North La Salle St., for 7 story, 34 x 88 ft. mill construction addition to factory, concrete foundation. About $75,000.

Wis., Campbellsport—White House Milk Products Co. West Bend having plans prepared by M. Tullgren & Sons archts. 425 East Water St. Milwaukee for 1 story, 50 x 100 ft., brick and mill construction plant, rein.-con. flooring, concrete foundation, here.

Tex., Zavata—K. C. Minter plans to build 2 story frame factory. About $50,000. Private plans.

Que., Montreal—Ideal Garage and Serv. Co., Ltd., soon receives bids building garage. About $50,000.

Ont., Hamilton—Steel Wks. of Canada, Harvey Lane, soon receives bids building 1 and 2 story, concrete, brick and steel plant and foundry, concrete flooring and foundation. About $300,000. Private plans.

Ont., Lakefield—Canada Cement Co., 9 Herald Bldg., Montreal, plans to alter, repair, build addition and install new equipment in plant, here. About $500,000.

Ont., Toronto—Delcomania Co. of Canada, 364 Richmond St., having plans prepared by H. J. Charon, archt., 20 Wayland Ave., for 6 story, brick and steel factory, concrete foundation, on King St. About $200,000. Noted May 8.

Ont., St. Catharines—Niagara, St. Catharines & Toronto Ry., 27 Wellington St., E., Toronto, having plans prepared by G. C. Briggs, archt., 27 Wellington St., E., for 1 story, 60 x 150 ft., concrete, brick and steel, car shops, concrete flooring and foundation, here. About $60,000. Noted April 8.

Alta., Athabaska—Mackenzie Basin Fisheries soon receive bids building cannery on Black Bay. L. Baxter, Sydney, N. S., engr.

BIDS DESIRED

Pa., New Castle—Johnson Bronze Co., South Mill St., receiving bids constructing 52 x 68 ft. core building, 32 x 62 ft. machine shop, both 2 story, also 1 story, 68 x 101 ft. foundry, brick and steel, rein.-con. flooring, brick foundation. About $125,000. F. D. Chase, 645 North Michigan Ave., Chicago, engr.

La., New Orleans—Until Aug. 17, by Bd. Port Comrs., furnishing or furnishing and erecting all structural steel required for Pauline St. freight shed extension; advertised in this issue.

Tex., Abilene—Until Aug. 9, by State Bd. Control, Austin, building laundry at State Epileptic Colony, here. S. B. Cowell, chn. C. H. Pagne & Bro., Austin, archts.

Ont., St. Thomas—Until Aug. 12, by S. Gilbert, mgr., Canada Iron Fdry., rebuilding plant which was partially destroyed by fire and constructing several new buildings. About $150,000.

Alaska, Unalaska Island—Amer. Whale Products Co., 8 South Dearborn St., Chicago, Ill., receiving bids building whale oil plant on Udagak Bay, to include refinery, fertilizer plant, oil tanks and storage buildings. About $1,000,000. Woltersdorf & Bernard, 138 North La Salle St., Chicago, Ill., archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston** — Boston & Maine R.R., North Sta., let contract building concrete and steel train sheds, to Tredennick Co., 10 High St. About $425,000.

★**Mass., Cambridge**—Presto Lite Co., Inc., Erie and Albany Sts., let contract building concrete foundation for twelve 1 story, brick and steel buildings, on Erie St., to J. A. Scully Foundation Co., 118 1st St., East Cambridge; steel contract, to Truscon Steel Co., 348 Sumner St., Boston. About $100,000.

★**Mass., Gardner**—Central Oil & Gas Stove Co. let contract building 3 story, 65 x 150 ft., brick and mill construction addition to plant, concrete foundation, to C. St. Hilaire, 60 Oak St.

★**R. I., Providence**—Lockwood, Greene & Co., archts and engrs., 60 Federal St., Boston, let contract to J. R. Bickford, 509 Westminster St., building 2 story, 110 x 170 ft., rein.-con. dye house, rein.-con. flooring, concrete foundation, for Franklin Process Co., 29 Promenade St. About $150,000. Noted July 22.

★**Conn., Bridgeport**—Crane Co., South Ave., let contract building 1 story, 100 x 219 ft., brick and frame warehouse, concrete flooring and foundation, to T. J. Pardy Constr. Co., 1481 Seaview Ave. About $50,000.

★**Conn., Naugatuck** — Naugutuck Chemical Co., Elm St., let contract building 2 story, 50 x 60 ft., brick, concrete, steel and hollow tile plant, rein.-con. flooring, concrete foundation, to Flynt Bldg. & Constr. Co., 356 Main St., Palmer, Mass. About $60,000.

★**Conn., New Haven**—New Haven Pulp & Board Co., Green St., let contract altering and building 1 story, brick, rein.-con. and steel addition to factory, rein.-con. flooring, concrete foundation, on Green and East Sts., to Levering & Garrigues Co., 552 West 23rd St., New York City. About $100,000.

★**Conn., Waterbury**—Berbecker & Rowland Mfg. Co., Waterville, let contract building 3 story, 41 x 176 ft., brick and mill construction addition to factory, here, to Torrington Bldg. Co., 197 Water St., Torrington. About $81,000.

★**N. Y., Brooklyn**—Pub. Serv. Comn., 49 Lafayette St., New York City, let contract building concrete foundations for storage yard, to Powers-Kennedy Co., 149 Bway., New York City, $407,889; furnishing and erecting steel, to Bigelow & Nichols, 45 East 42nd St., New York City, $387,400.

★**N. Y., Buffalo**—Parenti Motors Corp., 1760 Main St., let contract building 1 story, 100 x 350 ft., steel factory, at 616-632 Northumberland St., to B. T. Crocker Co., Builders Exch. About $100,000.

★**N. Y., New York**—Haffen Realty Co., 149th St. and 3rd Ave., let contract building 2 story, brick, concrete and steel factory, rein.-con. flooring, concrete foundation, on Southern Blvd. and 145th St., to Niewenhous Bros., 316-318 East 161st St. About $50,000.

★**N. Y., New York**—Sommerfeld & Steckler, archts. and engrs., 31 Union Sq., let contract to Brady-Butler Co., 18 West 34th St., building 7 story, 50 x 50 ft., brick, concrete and steel factory, rein.-con. flooring, concrete foundation, for Rigaud Perfume Co., 75 Barrow St. Noted July 15.

★**N. J., Paulsboro**—I. P. Thomas & Son Co. let contract constructing 1 story, 80 x 220 ft. fertilizer building, steel, to Austin Co., Bulletin Bldg., Phila.

★**N. J., Trenton**—Thermoid Rubber Co., Whitehead Rd., let contract building 1 story, 80 x 200 ft. addition to plant, concrete and steel, rein.-con. flooring, to Karno-Smith Co., Broad St. Bank Bldg. About $50,000.

★**N. J., Trenton**—J. E. Throop Sons Co., Lewis St., let contract building 1 story, 80 x 160 ft., concrete, brick and steel foundry, to Austin Co., Bulletin Bldg., Phila.

★**Pa., Essington**—Westinghouse Electric & Mfg. Co. let contract building 1 story, 120 x 200 ft., concrete and steel foundry, to Austin Co., Bulletin Bldg., Phila.

★**Pa., Norristown**—Wildman Mfg. Co. let contract building addition to foundry, rein.-con. and steel, rein.-con. flooring, concrete foundation, to United Fireproofing Co., 8 West 40th St., New York City. About $75,000. Noted July 22.

★**Pa., Phila.** — Keystone Spinning Mill, 1631 North 2nd St., let contract remodeling mill and building 2 story, 60 x 95 ft. warehouse, rein.-con. and brick, on Turner and Palethorpe Sts., to W. R. Dougherty, 1608 Sansom St.

★**O., Akron**—Federal Warehouse & Storage Co., c/o G. Ball, archt., Metropolitan Bldg., let contract building 6 story, 80 x 100 ft., rein.-con., steel and brick warehouse, rein.-con. flooring, concrete foundation, on Furnace St., to Clemmer & Johnson, Metropolitan Bldg. About $200,000.

★**O., Alliance**—Transue Williams Co. let contract building 1 story, 100 x 200 ft., brick, concrete and steel factory, rein.-con. flooring, concrete foundation, to H. K. Ferguson Co., Vickers Bldg., Cleveland. About $75,000.

★**O., Cleveland**—Exide Battery Co., 5125 Perkins Ave., let contract altering 2 story, brick and steel factory, to G. W. Feaga Co., 5927 Euclid Ave. About $60,000.

Industrial Works (Continued)

★**O., Cleveland**—Ohio Electric Controller Co., 5900 Maurice Ave., let contract building 2 story, 38 x 110 ft., rein.-con., steel and brick addition to factory, rein.-con. flooring, concrete foundation, to Austin Co., 16112 Euclid Ave. About $60,000.

★**O., Columbus**—Timken Roller Bearing Co., 1025 Cleveland Ave., let contract building 1 story, 120 x 480 ft., steel and brick factory, to D. W. McGrath & Sons, New 1st Natl. Bank Bldg. About $100,000.

★**O., Greenville**—Greenville Gravel Co. let contract building 2 story, 80 x 120 ft. brick and rein.-con. mill, rein.-con. flooring, concrete foundation, on Jackson St., to Allied Builders Co., Greenville. About $100,000.

★**Mich., Detroit**—Detroit Insulated Wire Co., Wesson and Albert Sts., let contract building 3 story, 40 x 80 ft., rein.-con. and brick addition to factory, brick foundation, to A. W. Kutche, 623 Ford Bldg. About $80,000.

★**Mich., Detroit**—Wood Hydraulic Hoist & Body Co., 1789 Hartwick Ave., let contract building 2 story, 140 x 400 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to W. Reynolds, c/o H. T. Millar, archt., 320 Lightner Bldg. Noted June 10.

★**Ill., Chicago**—Henshein & McLaren, archts., 37 West Van Buren St., let general contract to J. Rodatz, Rookery Bldg., constructing 3 story, 115 x 170 ft., rein.-con. and brick plant, rein.-con. flooring, concrete foundation, on West 39th St. and Emerald Ave., for D. Levi & Co., West 40th St. and Packers Ave. Total cost, $350,000. Noted July 22.

★**Ill., Kankakee**—M. Terman Produce Co. let contract building 2 story, 48 x 150 ft., rein.-con. and brick factory and warehouse, rein.-con. flooring, concrete foundation, on 15th St. along tracks of New York Central R.R., to Behrens Constr. Co., 1732 North Western Ave., Chicago. About $60,000.

★**Wis., Waukesha**—Waukesha Fdry. Co., 340 Bway., let contract building 1 story, 120 x 300 ft., brick and steel foundry, concrete foundation, to Federal Bridge & Structural Co., Lincoln Ave. About $50,000.

★**Ia., Davenport**—G. A. Koester, c/o Davenport Roofing Co., let contract building 3 story, 65 x 150 ft., concrete and brick garage, rein.-con. flooring, concrete foundation, on Front St., to H. Horst Co., Brumder Bldg., Milwaukee. About $150,000.

★**Ia., Des Moines**—Hawkeye Tire Co., 215 East 3d St., let contract building 4 story, 180 x 280 ft., rein.-con., brick and stone plant, rein.-con. flooring, concrete foundation, on East 18th and Court Aves., to J. A. Benson Constr. Co., 422 Valley Natl. Bank Bldg.; cost plus percentage basis. Cost to exceed $500,000.

★**Mo., Kansas City**—International Harvester Co., 606 South Michigan Ave., Chicago, let contract furnishing labor and material building 5 story, 116 x 144 ft., brick warehouse, rein.-con. flooring, concrete foundation, here, to L. Breitag, Ry. Exch. Bldg. About $200,000.

★**Mo., St. Louis**—F. Adams Electric Co., 3640 Winsor St., let contract building 1 story, 147 x 190 ft., brick addition to factory, to McCormick-Combs Constr. Co., Columbia Bldg. About $150,000.

★**Mo., St. Louis**—Producers Consolidated Oil Co., c/o A. D. Allen & Co., 515 Reliance Bldg., Kansas City, let contract building 100 gas filling stations, rein.-con., brick and stone, here, at Kansas City and along state roads, to A. D. Allen & Co. Cost between $9,000 and $10,000 each.

★**Ont., Ft. William**—Ft. William Pulp & Paper Co. let contract constructing plant, including 400 x 600 ft. and 300 x 300 ft. buildings, also several smaller units, concrete and steel, concrete and timber foundations along Mission River, to Barnett & McQueen Co., Ft. William. About $1,000,000; cost plus percentatge basis. Noted July 29.

Buildings

PROPOSED WORK

Me., Augusta—Hotel—Augusta House, 168 State St., having plans prepared by Bunker & Savage, archts., Augusta Trust Bldg., for large brick and steel addition.

Mass., Amherst—Church—St. Bridget Catholic Society, 34 Pleasant St., plans to build church. About $100,000. J. J. Beel, pastor. Architect not selected.

Mass., Boston—Laboratory—Gay & Proctor, archts., 50 Bromfield St., soon lets contract building 4 story, 40 x 61 ft. and 21 x 38 ft., brick and concrete, rein.-con. flooring, concrete foundations, on Bway. Extension, for Women's Educational & Industrial Union, 264 Boylston St.

Mass., Brookline (Boston P. O.)—Housing—H. Bolton Peck Corp., 1041 Little Bldg. Boston, having plans prepared by C. T. McFarland, archt., 162 Newbury St., Boston, for houses for work men, at Blake Park, here. About $1,000,000.

Mass., Cambridge—Hospital—E. T. Graham, archt., 20 Beacon St., Boston, soon lets contract building 3 story, 80 x 140 ft., brick, concrete and steel addition, rein.-con. flooring, concrete foundation, on Cambridge St., for City Hospital Comn. About $200,000.

Mass., Clinton—Housing—Lockwood, Greene & Co., archts. and engrs., 60 Federal St., Boston, soon lets contract building 2 story, brick, frame and stucco houses for workmen, concrete foundations, for Lancaster Mills. About $200,000.

Mass., Dedham—Club—Dedham Country & Polo Club having plans prepared by Richardson, Barott & Richardson, archts., 8 Beacon St., Boston, for 2 story, stone and frame.

Mass., Fall River—Temple—Masonic Societies plan to build 4 story, brick, concrete and steel, on North Main and Elm Sts. Architect not selected.

Mass., Lawrence—Church and School—St. Mary's Roman Catholic Society, Haverhill St., soon lets contract building 1 story, brick and stone church and 3 story, 50 x 100 ft. brick and steel school, concrete foundation, on Ames and Lowll Sts. About $125,000. J. T. Reilly, pastor. E. T. P. Graham, 20 Beacon St., Boston, archts.

Mass., Needham (Boston P. O.)—School—School Comn. plans to build brick and steel. About $125,000. Architect not selected.

Mass., Westfield—Theater—F. Schmidt, 24 School St., plans to build 1 and 2 story, brick and concrete, on School St. About $100,000. Architect not selected.

Conn., Hartford—Club and Lodge—Sons of St. George plans to build 4 story, brick, concrete and steel. About $100,000. A. Harrington, chn. Architect not selected.

Conn., New Britain—Club—Knights of Columbus, 434 Main St., plans to build brick and steel, on Franklin Sq. and Pearl St. About $100,000. Architect not selected.

Conn., New Haven—Store and Lofts—F. Teitelman, 146 State St., having plans prepared by C. H. Abramowitz, archt., 1st Natl. Bank Bldg., for 5 story, 60 x 70 ft., brick and mill construction, concrete foundation. About $100,000.

Conn., Waterbury—Auditorium—C. J. Bailey, archt., 95 Bank St., soon lets contract building 1 story, brick and concrete, on South Main St. About $125,000. Owner's name withheld.

Conn., Waterbury—Hospital—City Health Bd. having revised plans prepared by Cross & Cross, archts., 681 5th Ave., New York City, and soon receives bids building 2 story, with 2 wings, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Watertown Ave. About $200,000.

N. Y., Brooklyn—Nurses Home—Dept. Pub. Welfare, Municipal Bldg., New York City, rejected bids received July 15, building and completing additions on grounds of Kings Co. Hospital, Clarkson St., here. About $200,000. Work will be readvertised. Noted July 22.

N. Y., Syracuse—Schools—Common Council authorized $480,000 bonds to complete and improve 4 schools.

N. J., Jersey City—Church—St. Ann's Congregation plans to build new brick church. Cost to exceed $100,000. Architect not selected.

Pa., Germantown (Phila. P. O.)—Y. M. C. A., 5849 Germantown Ave., having plans prepared by Martin & Kirkpatrick, archts., 130 South 15th St., Phila., for concrete, brick and steel, on Haines St. and Germantown Ave. About $400,000.

Pa., Huntingdon—Dormitory—Juniata College rejected bids June 1, building 3 story, 27 x 32 x 39 x 85 ft., brick. Work will be readvertised. Noted May 27.

Pa., Pittsburgh—Theatre—All Nations Arcade Co. c/o G. H. Schwan archt., Peoples Bank Bldg. opens bids about Aug. 10, altering present building and constructing 3 story, 86 x 120 ft. concrete, brick and steel addition, rein.-con. flooring, at 1915 Carson St. About $100,000.

Md., Baltimore—See "Sewers."

W. Va., Charleston—Schools, etc.—Y. W. C. A. had plans prepared by C. D. McLane, archt., Chicago, for 3 story, 80 x 125 ft. building, including 24 x 60 ft. swimming pool and 50 x 70 ft. gymnasium on Quarrier St. About $160,000. Address F. Woodman, 1210 Kanawha St.

W. Va., Clarksburg—Church—Protestant Episcopal Church plans to build 1 story, stone, on 6th and West Main. About $100,000. C. J. Carter, rector. & Ferguson, 15 Beacon St., Boston, Mass. archts.

N. C., East Spencer—School—City to election to vote on $100,000 bond issue build school. Architect not selected.

N. C., Lake Junaluska—Assembly, etc. Southern Methodist Assembly plans to construct mission board building, cost $100,000, hotel, $75,000, and cottages $50,000.

N. C., Raleigh—Church—Memorial Baptist Church plans to build brick church on Hillsboro St. About $150,000. Architect not selected.

N. C., Wilmington—Hospital—Bulloch and Davis plan to build brick and concrete hospital on Grace St. About $125,000. B. Lynch, 201 North 13th St., archt.

Ga., Savannah—School—Bd. Educ. has plans prepared by W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., for 3 story, 148 x 224 ft., rein.-con. and brick, rein.-con. flooring. About $1,000,000.

Ga., Savannah—School—Bd. Educ. has plans prepared by W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., for 2 story, 152 x 158 ft., rein.-con. and brick, rein.-con. flooring. About $500,000.

Tenn., Nashville—Hospital Bldg.—Bd. Dir. Womans Hospital, 301 8th Ave. N. plans to build annex on 8th Ave. and Union St. About $200,000. C. H. Eastman, chn.

O., Berea—Hospital—Bd. Trade, c/o P. Newbrand, plans to build 3 story, rein.-con. steel and brick, rein.-con. flooring, concrete foundation. About $20000. Architect not selected.

O., Cleveland—Club House—Brooklyn Catholic Club Co., 4421 Pearl Rd., having plans prepared by M. Rosseau, archt. Wickford Ave., East Cleveland, for 2 story, 68 x 100 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, at 4427 Pearl Rd. About $100,000. H. Postsecy. Noted March 11.

O., Cleveland—Commercial—Knight-Norris-Gibbs Co., 1017 Euclid Ave., plans to build 3 story, rein.-con., steel and brick, rein.-con. flooring, at 3912 Prospect Ave. About $150,000. Architect not selected.

O., Cleveland—Exchange—Cleveland Telephone Co., Engineers Bldg., receives bids about Aug. 14, building 3 story, 60 x 150 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on West 65th St. and Guthrie Ave. About $250,000. A. N. Symes, Engineers Bldg., engr. Hubbell & Benes, 4500 Euclid Ave., archt.

O., Cleveland—Office—See "Industrial Works."

O., Cleveland—Office—Gongwer Syndicate, c/o W. S. Longer, archt., 500 Marshall Bldg., plans to build 10 story, 50 x 100 ft. rein.-con., steel and brick, rein.-con. flooring, concrete foundation on East 3rd St. and Lakeside Ave. About $500,000.

O., Cleveland—Police Station—City having plans prepared by J. H. MacDowell, archt., 604 City Hall, for 2 story, 60 x 184 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on East 37th St. and Woodland Ave. About $250,000.

O., Cleveland Heights (Warrensville P. O.)—School—Bd. Educ. having plans prepared by F. C. Warner, archt., Hippodrome Annex Bldg., Cleveland, for 3 story, 20 room, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Taylor Rd. About $500,000. E. K. Bryan, Lee Rd., clk.

O., Columbus—Theatre—M. Stearn, 985 Pennsylvania Ave., plans to build 6 story on High St. About $700,000.

O., Cuyahoga Falls—Church—Methodist Congregation plans to build new church on Main St. About $125,000.

O., Gettysburg—School—Trustees plan to build 2 story, 80 x 110 ft., rein.-con. and brick, concrete foundation. About $130,000. Walker & Norwich, Conover Bldg., Dayton, archts.

O., Lakewood (Cleveland P. O.)—Church and School—Christian Church, c/o C. Tousley, archt., 4500 Euclid Ave., Cleveland, soon lets contract building 1 story, 45 x 72 ft. brick and steel, brick foundation, on West 119th St. and Lorain Ave. About $100,000.

O., Marion—Bank—Marion Natl. Bank soon lets contract building 2 story, 47 x 132 ft., brick and stone, on Main St. About $150,000. Richards, McCarty & Bulford, 584 East Broad St., Columbus, archts.

O., Massillon—Market—City plans to build 2 story brick. About $100,000. Albrecht, Wilhelm and Kelley, Massillon, archts.

Buildings (Continued)

O., Payne—School—Robinette, Bruyere & Cameron, archts. and engrs., Spitzer Bldg., Toledo, receive bids about Aug. 24, building 2 story, 80 x 140 ft., brick, wood floors, concrete foundation, for School Bd. About $100,000.

O., Springfield—Courthouse—Clark Co. and revised plans prepared by W. K. Shilling, archt. and engr., Fox Hollow Farm, R. No. 7, rebuilding 3 story, rein.-con., steel, stone and brick, rein.-con. flooring. Bonds for $245,000 voted for project.

Mich., Battle Creek—Sanitarium—City, c/o A. S. Kimball, plans to build 2 or 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $100,000. Architect not selected.

Mich., Detroit—Offices—W. & L. Berman, c/o Berman-Dwyer Realty Co., 1317 Dime Bank Bldg., having plans prepared by Smith, Hinchman & Grylls, archts. and engrs., 710 Washington Arcade, for 10 story, 32 x 100 ft., rein.-con., brick, steel and terra cotta, rein.-con. flooring, concrete foundation, at 32-34 Cadillac Sq. About $500,000.

Mich., Detroit — Theatre — J. Kunsky, Madison Theatre Bldg., retained C. H. Crane and E. Kiehler, archts., Huron Bldg., to prepare plans for 2 story, rein.-con., brick and steel, rein.-con. flooring, brick foundation, on Mack Ave. About $200,000.

Mich., Gladstone — Church — All Saints' Congregation soon lets contract building 1 story, 59 x 144 ft., concrete, brick and tile. About $100,000. G. Arntzen, Escanaba, archt. Noted July 22.

Ill., Chicago — Lodge and Office — Humboldt Park Commandery, c/o M. J. Strauch, archt., 1356 Diversey St., had plans prepared for 3 story, 75 x 90 ft., concrete and steel, concrete foundation, at 240 North Kedzie Blvd. About $110,000.

Ill., Granite City — High School — Bd. Educ. having plans prepared by W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., for 3 story, brick. About $280,000.

Wis., Madison—Hospital—Madison Hospital Assn. having plans prepared by A. Peabody, state archt., Capitol Bldg., for 5 story, rein.-con. and brick, on University Ave. and Charter St. About $400,000.

Wis., Milwaukee—Dental School—Marquette University, 1115 Grand Ave., having preliminary plans prepared by Kirchoff & Rose, archts., Majestic Bldg., for brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Grand Ave. About $750,000.

Wis., Racine—High School—Bd. Educ. having preliminary plans prepared by E. B. Funston Co., archts., Robinson Blk., for 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $400,000.

Ia., Waterloo—Lodge—Elks Lodge having plans prepared by M. B. Cleveland, archt., 1st Natl. Bank Bldg., for 2 story, rein.-con., brick and steel. About $100,000. H. Hartong, chn. bldg. com.

Minn., Minneapolis—Police Station—City having plans prepared by A. O. Fisher, asst. city building inspector, City Hall, for 2 story, 60 x 90 ft. concrete, brick and stone, at 2915 Bryant Ave. S. About $125,000.

Minn., Montevideo — School — Bd. Educ. having plans prepared by W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., for 2 story, concrete and brick. About $100,000.

Kan., Wichita—Exposition—City election Aug. 27 to vote on $200,000 bonds to construct addition to exposition building, on William and Water Sts. Architect and engineer not selected.

Kan., Wichita—Gymnasium—Fairmount College, College Hill, plans to build 75 x 90 ft. brick. About $100,000. W. N. Rollins, pres. Architect and engineer not selected.

S. D., Lead — Store — Hearst Mercantile Co. soon receives bids building 3 story, 180 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $250,000. H. W. J. Edebrook, Opera House Bldg., Denver, Col., archt.

Wyo., Rock Springs—Theatre—H. W. J. Edebrooke, archt., Opera House Bldg., Denver, Col., receives bids about Aug. 9, building 57 x 140 ft., rein.-con., steel and brick, rein.-con. flooring and foundation, for Rialto Amusement Co., Rock Springs. About $150,000.

Mo., St. Louis—Clubhouse—Young Mens Hebrew Assn., 3645 Delmar Blvd., plans to build rein.-con. and brick, rein.-con. flooring, to include gymnasium and swimming pool. Architect not selected.

Mo., Kansas City—Hotel, Club and Office—Marquette Council, Knights of Columbus, c/o J. Joyce, 3133 Euclid St., having plans prepared by E. E. Boillot, archt., Scarritt Bldg., for 10 story, steel, brick, stone and terra cotta. About $1,000,000.

Ark., Ft. Smith—Hospital—St. Edward's Hospital, North 15th and A Sts., having plans prepared by A. Klingensmith, archt., Rowland, Okla., for 4 story, 70 x 128 ft., brick and stone, rein.-con. flooring. About $250,000. Hedrick & Huff, Interstate Bldg., Kansas City, Mo., engrs.

Okla, Henryetta—Hospital—City election Aug. 27 to vote on $100,000 bonds to build 3 story hospital. Architect and engineer not selected.

Ariz., Mesa — Hotel — C. Tobey, archt., Phoenix, preparing plans for rein.-con. hotel, here. About $200,000. Owners name withheld.

Wash., Seattle—Office—Independent Paper Stock Co., Commercial Bldg., having plans prepared by L. S. Rosenor, engr., Insurance Exch. Bldg., San Francisco, for 3 story, 120 x 180 ft., rein.-con., rein.-con. flooring, concrete foundation, on Denny Way and Railroad Ave. About $150,000.

Cal., Atascadero — High School — Bd. Educ. receives bids about Oct. 1, constructing three 1 and 2 story buildings for high school. About $200,000. J. T. Roth, chn. bldg. comn.

Ont., Brantford—Store—L. R. Steel Co. Ltd., plans to build 3 story, concrete, brick and steel, on Queen and Colborne Sts. About $100,000.

Ont., Hamilton—School—Bd. Educ. having plans prepared by G. Brow, archt., Clyde Bldg., for 2 story, 8 room, concrete, brick and steel, concrete flooring and foundation. About $125,000.

Ont., Owen Sound—Theatre—C. Georgas and P. Leos having plans prepared by Hall & Duerr, archts., Lumsden Bldg., Toronto, for 2 story, concrete, brick and steel, concrete foundation. About $125,000.

Ont., Toronto—Chinese Y. M. C. A. plans to build 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $150,000. E. B. Yung, secy. Architect not selected.

BIDS DESIRED

N. Y., Rochester—Hotel—Until Aug. 25, by J. A. Armstrong, archt., 127 North Dearborn St., Chicago, and Gordon & Kaelber, associate archts., Sibley Blk., constructing 9 story, terra cotta, rein.-con., stone and steel, rein.-con. flooring, concrete foundation, on East Ave. Owner's name withheld.

N. Y., Syracuse—Pavilions—Until Aug. 19, by M. L. King, archt. and engr., Snow Bldg., constructing tuberculosis pavilion for children and adults' pavilion for incipient cases, at Onondaga Sanatorium, Hoppers Glen. About $200,000. Noted Feb. 12.

O., Prospect—School—Until Aug. 14, by Bd. Educ., building 1½ story, 114 x 145 ft., fireproof construction. About $125,000. O. D. Howard, 8 East Broad St., archt.

O., Sidney—Theatre—Until Aug. 10, by C. B. De Weese Co., building 3 story, 83 x 166 ft. About $200,000. J. Q. Adams, New Southern Hotel, Columbus, archt. Noted May 20.

O., Toledo—School—Until Aug. 9, by Bd. Educ., Adams Twp., building 2 story, 40 x 56 ft. and 45 x 78 ft., in Adams Twp. About $150,000. M. M. Stophlet, 608 Nasby Bldg., Toledo, archt. and engr.

Ind., Evanston—Hotel and Theatre—J. E. O. Pridmore, archt., 38 South Dearborn St., Chicago, receiving bids building 6 story, 144 x 148 ft., rein.-con., brick and steel, concrete foundation, for Standard Evansville Realty Co.

Mich., Kalamazoo—School—Until Aug. 16, by H. W. Anderson, secy., Bd. Educ., building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000. R. A. LeRoy, 122 Pratt Blk., archt. Noted July 29.

Ia., Cedar Rapids — High School — Until Sept. 1, by Bd. Educ., building 4 story, 118 x 204 ft., brick, rein.-con. and steel. About $550,000. Rugh & Zalesky, Security Bldg., archts. Noted May 13.

Ia., Coburg—School—Until Aug. 19, by Bd. Educ., building 2 story, 43 x 81 ft., rein.-con., brick and stone, rein.-con. flooring, concrete foundation. About $100,000. J. M. McGreer, pres. W. Gordon, 319 Hubbell Bldg., Des Moines, archt. Noted March 18.

Minn., Hinckley—Home—Until Aug. 17, by A. P. Edin, aud. Pine Co. (Pine City) building 2 story, 80 x 93 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here, for Pine Co. Home Assn. About $100,000. F. W. Schweiger, Moose Lake, archt. and engr.

S. D., Mitchell—Auditorium—Until Aug. 15, by Rapp & Rapp, archts., 190 North State St., Chicago, building 3 story, 150 x 180 ft., rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on North Main St. and 6th Ave., for city. About $500,000. Noted July 29.

N. D. Rolla—School—Until Aug. 21, by Bd. Educ. building 3 story, 60 x 78 ft., brick, tile and stone. About $125,000. E. P. Dixon clk. W. J. Edwards, 2nd Natl. Bank Bldg., Grand Forks archt.

Col., Denver—High School—Until Sept. 15, by School Bd., City and Denver Co., building 2 story, 125 x 350 ft. and 60 x 350 ft., brick, rein.-con. and steel, concrete foundation, on block bounded by South Washington, South Pearl, Baird and Cedar Aves. About $420,000. W. N. Bowman, Central Savings Bank Bldg., archt.

N. S., Halifax—Housing—Until Aug. 15, by S. M. Brookfield, pres. City Housing Com., building thirty 2 and 2½ story, concrete and brick houses, rock and concrete foundations. About $195,000. F. W. W. Doane, Halifax, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Mercantile—Haven & Crosby, archts. and engrs., 40 Court St., let contract to C. A. Dodge Co., Erie St., Cambridge, altering mercantile and loft building on North St., here, for J. K. Whiting, Milk St., Charlestown. Noted July 29.

★**Mass., Boston** — Office and Business — Henderson & Ross, 148 State St., let contract building 10 story, 50 x 60 ft., brick, concrete, terra cotta and steel, concrete flooring and foundation, to Evatt Constr. Co., 161 Devonshire St. About $600,000.

★**Mass., Brockton**—School—Bd. Educ. let contract building 2 story addition to Franklin Grammar School, brick, concrete and steel, concrete foundation, to T. F. Crowell, 19 South St. About $151,700. Noted July 8.

★**Mass., East Deerfield**—Boston & Maine RR., North Sta., Boston, let contract constructing 3 story, 70 x 120 ft. Y. M. C. A. building, brick and steel, concrete foundation, here, to H. W. Lines Co., 134 State St., Meriden, Conn. About $100,000. Noted Jan. 1.

★**Mass., Fall River**—Bank—Union Savings Bank, 14 South Main St., let contract building 1 story, 50 x 80 ft., brick, stone and steel, rein.-con. flooring, concrete foundation, on South Main and Market Sts., to F. T. Ley & Co., Inc., 499 Main St., Springfield.

★**Mass., Holyoke**—Recreation—Farr Alpaca Co., Jackson St., let contract constructing 4 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Cabot St., to S. M. Green Co., 293 Bridge St., Springfield. About $150,000.

★**Mass., Jamaica Plain** (Boston P. O.)—Theatre—F. Green, 37 Tremont St., Boston will build brick and steel, rein.-con. flooring concrete foundation, on Hyde Sq., here. About $150,000. Work will be done by day labor.

★**Mass., Mattapan** (Boston P. O.)—Dining Room—Commonwealth of Massachusetts, Comn. on Mental Diseases, 36 State House, Boston, let contract building 2 story, brick and concrete, rein.-con. flooring, concrete foundation (west group), at State Hospital, here, to F. G. Coburn, 294 Washington St., Boston, $173,464. Noted July 22.

★**Mass., Mattapan** (Boston P. O.)—Nurses' Home—Commonwealth of Massachusetts, Comn. of Mental Diseases, 36 State House, Boston, let contract building 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation (east group), at State Hospital, here, to F. G. Coburn, 294 Washington St., Boston, $106,270. Noted July 22.

★**Mass., Newton Upper Falls** (Boston P. O.)—Housing—Saco Lowell Mills, 77 Franklin St., Boston, let contract building ten 2 story, frame, brick and stucco houses for workmen, concrete foundations, to H. Nawn Constr. Co., 82 Savin St., Roxbury. About $100,000.

★**Mass., Springfield**—Bank—Springfield Natl. Bank, 321 Main St., will alter brick, concrete and steel. About $100,000. Work will be done by day labor under supervision of W. E. Dibble, archt., 317 Main St.

★**R. I., Providence**—Stores and Offices—F. W. Woolworth Co., 233 Bway., New York City, let contract building 5 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Westminster and Dorrance Sts., to C. B. Maguire Co., 1205 Turks Head Bldg. About $175,000. Noted July 29.

Buildings (Continued)

★**Conn., Hartford** — Business — J. McManus, 242 Asylum St., let contract building 3 story, 40 x 141 ft., brick, concrete and steel, concrete foundation, to E. J. Miskill, 296 Church St.

★**Conn., Wallingford**—Armory—Connecticut Military Emergency Bd., State Armory, Hartford, let contract building 3 story, 38 x 75 ft. armory and 1 story, 75 x 150 ft. drill shed, brick, concrete and steel, rein.-con. flooring, concrete foundation, on North Main St., to Loucks & Clarke, Ernest St. About $100,000. Noted July 15.

★**N. Y., Dobbs Ferry**—School—Masters School let contract building 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, to Jacobs & Young, 120 West 32nd St., New York City. About $150,000.

★**N. Y., Far Rockaway** — School — Bd. Educ., 500 Park Ave., New York City, let contract building P. S. 39, brick, steel and stone, brick foundation, on State St., here, to T. Dwyer, Bway. and 216th St., New York City. About $134,000. Noted July 22.

★**N. Y., New York**—Hospital—B. Levingson, archt., 166 East 43rd St., let contract to Smith & Stone, 25 West 42nd St., building brick and stone addition, brick foundation for Beth David Hospital, 1328 Lexington Ave. About $150,000. Noted June 10.

★**N. Y., New York**—Office—J. S. Kennedy, archt. and engr., 157 Remsen St., let contract to B. Golden, Chambers St., building 6 story, brick, stone and steel, concrete foundation, on Gold and John Sts., for Bainbridge Co., c/o architect. About $500,000. Noted May 6.

★**N. Y., New York**—Store and Showroom—Avedon & Co., c/o H. A. Jacobs, archt. and engr., 326 5th Ave., let contract building 6 story, 35 x 100 ft., brick and steel, brick foundation, at 448 5th Ave., to Ablegans Constr. Co., 1311 East New York Ave., Brooklyn. About $150,000. Noted April 1.

★**N. Y., New York**—Theatre—L. and J. J. Shubert, 225 West 44th St., let contract building 50 x 125 ft., brick and stone, brick foundation, on 58th St. and Central park West, to E. Margolies, 19 East 33rd St. About $400,000.

★**Pa., Phila.**—Church—Oak Park United Presbyterian Church, c/o G. E. Savage, archt., Witherspoon Bldg., let contract building 1 story, 75 x 85 ft., stone, on 51st and Pine Sts., to G. B. Bond, 13th St. and 66th Ave. About $100,000.

★**Pa., Phila.**—Office—C. D. Barney Co., 122 South 4th St., let contract building 2 story, 25 x 125 ft., brick and stone, on Walnut and 14th Sts., to Ketcham & McQuade, 1029 Brown St. About $100,000.

★**Pa., Phila.**—Theatre—J. P. Beury let contract building 4 story, 78 x 80 ft., concrete, brick and steel, on 9th and Walnut Sts., to W. H. Lee, 32 South 17th St. Cost to exceed $100,000. Noted April 15.

★**D. C., Washington** — School — Dist. Comrs. let contract building addition to Petworth School, on 8th and Shepherd Sts., N. W., to W. E. Mooney, Evans Bldg., $171,665 (9 months).

★**O., Columbus**—Schools—Bd. Educ. let general contracts to Federal Constr. Co., Hartman Bldg., constructing 100 x 190 ft. on Sullivant Ave. and 120 x 209 ft. on Taylor Ave., both 2 story, $201,081 and $204,-931 respectively; heating and ventilating above schools, to Huffman & Wolfe, 669 North High St., $35,383 and $35,382 respectively. Noted July 22.

★**Mich., Birmingham**—Bank—First Natl. Bank of Birmingham let masonry contract building 2 story, 75 x 100 ft., rein.-con. and stone, rein.-con. flooring, concrete foundation, to Hazelton & Clark, Book Bldg., Detroit. Noted April 22.

★**Mich., Detroit**— Clubhouse and Temple—Amity Lodge I.O.O.F., 35 Vincennes St., let masonry contract building 4 story, 50 x 100 ft., brick, steel and rein.-con., rein.-con. flooring, concrete foundation, to G. D. Nutt, 632 Farwell Bldg. About $150,000. Noted July 1.

★**Mich., Ferndale** — School — St. James Parish, c/o Donaldson & Meier, archts., 1314 Penobscot Bldg., Detroit, let masonry contract building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Woodward Ave., to M. Bartholomaei Sons & Co., 466 Warren Ave., Detroit. Noted April 15.

★**Ia., Ames**—Club—Wesley Foundation of Iowa let general contract building 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, to C. Weitz & Sons, 713 Mulberry St., Des Moines. About $200,000. Foundation will be built this year, superstructure in 1921. Noted June 3.

★**Ia., Des Moines**—Office, etc.—Homestead Publishing Co., 1912 West Grand Ave., let contract building 7 story, 56 x 134 ft., brick, rein.-con. and steel office and warehouse, at 1912-20 Grand Ave. W., to C. Weitz & Sons, 713 Mulberry St. About $175,000.

★**Ia., Dubuque**—Chapel—Sisters of Mercy let contract building 4 story chapel, and foundation for novitiate, on Asbury Rd., to A. Awack, Dubuque. About $400,000.

★**Ia., George**—School—Bd. Educ. let general contract building 2 story, 84 x 127 ft., rein.-con., brick and steel, to M. A. Floyd Co., 535 Andrus Bldg., Minneapolis, Minn., $95,700.

★**Ia., Newhall** — School — Bd. Educ. let contract building 2 story, 67 x 86 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Wheeler Constr. Co., Newhall. About $110,000. Noted May 13.

★**Ia., Zearing**—School—Bd. Educ. let contract building 2 story, 70 x 90 ft., brick, concrete and steel, concrete foundation, to Lauritzen Constr. Co., 305-6 Lafayette Bldg., Waterloo. About $130,000. Noted April 1.

★**Minn., Upsala** — School — Independent School Dist. 22 let general contract building 2 story, 55 x 156 ft., brick and frame, to C. Kropp & Son, St. Cloud, $79,197. Noted July 22.

★**N. D., Oakes**—School—Bd. Educ. let contract building 3 story, 68 x 155 ft., brick, to F. E. Peterson, 216 Van Slyke Bldg., Aberdeen, $145,836.

★**Wyo., Salt Creek**—Hotel—Midwest Refining Co., 1st Natl. Bank, Denver, Col., will build 2 story, 70 x 114 ft., concrete and brick, here. About $125,000. Work will be done by day labor.

★**Mo., St. Louis**—Apartment—Famous Players Corp., 3314 Locust St., let contract building 15 story, 100 x 125 ft., concrete, steel and brick, on Grand and Lucas Sts., to E. P. Porter, Merchants Laclede Bldg. About $1,200,000.

★**Mo., St. Louis** — Mercantile — Quality Realty Co., International Life Bldg., let contract building 4 story, rein.-con. and brick, rein.-con. flooring, on Forest Park Blvd., to P. J. Bradshaw, International Life Bldg. About $200,000.

★**Ark., Osceola**—Passenger Station—St. Louis & San Francisco Ry., Ry. Exch. Bldg., St. Louis, Mo., let contract building 1 story, 26 x 153 ft., rein.-con., tile and stucco, concrete foundation, here, to J. E. Nelson & Sons, 3240 Michigan Blvd., Chicago. About $100,000.

★**Tex., Del Rio**—Hotel—St. Charles Hotel Co. let contract building 3 story, 30 x 150 ft. hotel, to H. M. Hutchinson, Del Rio. About $150,000.

★**Okla., Oklahoma**—Coliseum—Coliseum Corp. let contract building 1 story, 160 x 204 ft., to Campbell & Price Constr. Co., 610-13 Majestic Bldg. About $187,000.

★**Col., Julesburg** — High School — School Dist. let general contract building 2 story, 37 x 151 ft., rein.-con. and brick, concrete foundation, to G. M. Tamblyn, 1527 Champa St., Denver. About $74,000.

N. S., Halifax—Hospital—Anti-Tuberculosis League received bids building hospital on City Home grounds, from Rhodes Curry Co., Amherst, $159,995; J. H. Holman Constr. Co., Halifax, $167,180; W. E. Landry, Halifax, $170,750.

★**Ont., St. Catharines**—College—Sproatt & Rolph, archts., 36 North St., Toronto, let masonry contract building addition to Ridley College, here, to Page & Co., Weston Rd., Toronto, total cost $200,000.

★**Ont., Toronto**—College—Ontario College of Art, St. James Sq., let contract building 2 story, stone, concrete flooring and foundation, to Witchall & Sons, 156 St. Helens Ave. About $120,000.

★**Ont., Toronto**—School—Bd. Educ. 155 College St., let masonry contract building concrete, brick and steel, concrete flooring, to H. Lucas & Sons, 141 Havelock St., $56,-176; concrete, to R. A. Rogers, 107 Hiawatha Rd., $20,960; carpentry, to F. Armstrong, 89 Oak St., $32,255; plumbing and heating, to Purdy Mansell Ltd., 63 Albert St., $31,950.

★**Ont., Toronto**—School—Bd. Educ., 155 College St., let masonry contract for concrete, brick, steel and stone school, to Teggle & Son, 310 Davenport Rd. Total cost $160,000.

★**B. C., Stuart Lake**—School, Chapel, etc.—Dept. Pub. Wks., Victoria, let contract building 3 story, brick and frame school, laundry and chapel, concrete foundation, on Indian Reserve, to R. Moncrieff, 3820 11th Ave. W., Vancouver. About $174,500.

★**Jamaica Island, Kingston** — Hotel — United Fruit Co., Bd. Trade Bldg., Boston, let contract building 3 story addition to Myrtle Bank Hotel, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, here, to Aberthaw Constr. Co., 27 School St., Boston. About $225,000. Incorrectly noted in our issue of July 29, under "Kinkston, Mass."

Federal Government Work

PROPOSED WORK

Conn., New London—Roads, Walks, etc.—Spec. 4249—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids building roads, walks, storm sewers and railroad trucks, here; $10 deposit required for plans and spec.

N. Y., New York—Cable Reel Platform, etc.—Spec. 4243—Bureau Yards & Docks, Navy Dept. Wash., D. C., soon receives bids building cable reel platform, storage shed and fence, storage racks, and remodeling Bldg. 150 and demolishing Bldg. 151, $10 deposit required for plans and spec.

Va., Norfolk — Dredging — U. S. Engr. Office, Custom House, rejected bids received June 30, dredging inland waterway from here to Beaufort, N. C. Noted June 10.

Ky., Louisville—Steel Dump Scow—U. S. Engr. Office, 425 Custom House, rejected bids received July 8, furnishing and delivering. Noted June 10.

O., Cleveland—Repairing Breakwater and Placing Riprap—U. S. Engr. Office, Federal Bldg., rejected bids received July 19, repairing at Cleveland Harbor. Noted July 1.

Ore., Astoria — Remodeling Customhouse and Post Office—Treas. Dept., Wash., D. C., received no bids July 29, remodeling here. J. A. Wetmore, superv. archt. Noted July 8.

BIDS DESIRED

R. I., Providenc—Dredging—Until Aug. 26, by U. S. Engr. Office, dredging in Providence River and Harbor; advertised in this issue.

N. Y., Tompkinsville—Cast Iron Ballast Balls, etc.—Until Aug. 18, by Supt. Lighthouses, for 127 c.i. ballast balls with forged shackles, 200-2,600 lb. each and 72 iron buoy bottom castings with forged eye, 180-270 lb. each.

N. Y., Tompkinsville—Steel Bell Buoys, etc.—Until Aug. 19, by Supt. Lighthouses, for 8 steel bell buoys with skelton superimposed bell frame and bottom c.i. counterweight, 4 whistling buoys with whistles and 99 steel buoys with c.i. counterweight and w.i. mooring eye.

D. C., Wash.—Road Work—Until Aug. 17, by V. M. Peirce, dist. engr., Bureau Pub. Rds., U. S. Dept. Agriculture, improving and building 20.9 mi. Three States Natl. Forest Rd., within or partly within Nantahala Natl. Forest, Rabun Co., Ga., Macon Co., N. C. and Oconee Co., S. C.; advertised in this issue.

Va., Hampton Roads—Steam Distributing and Condensate Return System—Spec. 4258—Until Aug. 25, by Bureau Yards & Docks, Navy Dept., Wash., D. C., furnishing and installing, at Naval Operating Base, here; advertised in this issue.

Va., Roanoke—Remodeling Post Office and Court House—Until Aug. 27, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.; advertised in this issue.

S. C., Columbia—Post Office—Until Sept. 3, by Treas. Dept., Wash., D. C., completing, here. J. A. Wetmore, superv. archt.

Miss., Vicksburg—Stern Wheel Steel Towboat Hull—Until Aug. 23, at Office of Mississippi River Comn., 3d Dist., building 1 stern wheel steel towboat hull; advertised in this issue.

Tenn., Memphis — Return-Flue Boilers — Until Aug. 26, at Office of Mississippi River Comn., Custom House, furnishing and delivering 5 return-flue boilers for U. S. S. Chisca; advertised in this issue.

Tenn., Memphis—Steel Hull—Until Aug. 26, at Office of Mississippi River Comn., 1st and 2nd Dists., Custom House, furnishing 1 steel hull for U. S. S. Chisca; advertised in this issue.

O., Cleveland—Boiler—Until Aug. 17, by Treas. Dept., Wash. D. C., building, at Marine Hospital, here. J. A. Wetmore, superv. archt.

Ind., South Bend—Remodeling Post Office—Until Aug. 23, by Treas. Dept., Wash. D. C., remodeling, here. J. A. Wetmore, supery. archt.

Montana—Road Work—Until Aug. 9, by U. S. Bureau Pub. Rds., Missoula, grading 7 mi. West Fork Rock Creek Rd. Project, Carbon Co., involving 19,500 cu.yd. earth and 3,700 cu.yd. rock excav., 826 lin.ft. corrugated iron pipe culvert and 95 cu.yd. dry rubble masonry. T. M. Kiene, dist. engr.

★**Mo., St. Louis**—Stern Wheel Steamboat—Until Aug. 30, at office of Secy. Mississippi River Comn., 1311 International Life Bldg., rebuilding and delivering; advertised in this issue.

General Government Work (Continued)

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass. Fall River—Remodeling Post Office Treas. Dept., Wash., D. C., received bids July 28, remodeling, here, from Theriault Contg. Co., 534 East Johnson St., Phila., $10,388; Norfolk Bldg. Co., 10 Acton St., Boston, $12,615; G. E. Wright, Monadnock Blk., Chicago, $12,500. Noted July 8.

★**N. Y., New York**—Gasoline Storage Shed Spec. 4224—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Navy Yard, here, to R. M. Kearns, 692 Washington St., New York City, $5,999 (70 days). Noted July 29.

★**Pa. Pittsburgh**—Gate and Valve Operating Machinery—U. S. Engr. Office 2111 Farmers Bank Bldg. let contract furnishing and delivering for Emsworth Dam, Ohio River, to J. and J. B. Milholland, 714 5th Ave., $25,856. Noted July 29.

D. C., Wash.—Heating Plant Improvements—Spec. 4242—Bureau Yards & Docks, Navy Dept., received bids July 28, improving at Naval Observatory, (1) work complete, from W. G. Cornell Co., 923 12th St., (1) $9,437 (80 days), (2) $163, (3) $851; Standard Eng. Co., 2129 Eye St., (1) $9,980 (45 days), (2) $170, (3) $920; F. J. Eisinger, 141 7th Ave., Brooklyn, (1) $11,971 (90 days), (3) $10,986. Noted July 22.

D. C., Wash. — Superstructure — Dist. Comrs., Dist. Bldg., received bids constructing, at Rock Creek Pumping Sta., 27th and K Sts. N. W., from C. H. Tompkins, 1883 3rd St., $19,700; Skinker & Garrett, 1416 F St. N. W., $20,941; W. E. Mooney, Evans Bldg., $21,378. Noted July 8.

★**Va., Cape Charles**—Channel—Treas. Dept., Wash., D. C., let contract dredging new channel, at Quarantine Sta., here, to Raymond Concrete Pile Co., 921 Munsey Bldg., Baltimore, Md. About $45,000 (5 months).

★**Va., Cape Charles**—Wharf, Bulkhead, etc.—Treas. Dept., Wash., D. C., let contract building wharf, bulkhead and breakwater, at Quarantine Sta., here to J. Stewart & Co., Inc., 30 Church St., New York City, $77,665 (5 months). Noted July 22.

Va., Norfolk—Paint and Oil Storehouse—Spec. 4222—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 28, building 1 story, 62 x 202 ft., here, (1) work complete, from Boyle Robertson Constr. Co., Evans Bldg., Wash., D. C., (1) $70,244 (175 days), (2) add $5,492, deduct $3,332, (3) add $5,682, deduct $3,385, (4) $76,184 (175 days), (5) add $5,913 deduct $3,692, (6) add $6,089, deduct $3,732; G. E. Wyne, Home Life Bldg., Wash., D. C., (1) $73,900 (160 days), (2) add $5,700, deduct $4,900, (3) add $5,900, deduct $5,100, (4) $78,350, (5) add $6,100, deduct $5,300, (6) add $6,300, deduct $5,500, (7) $98, (8) $24, (9) $98; R. M. Kearns, 692 Washington St., New York City, (1) $82,500 (160 days), (2) add $8,500, deduct $7,500, (3) add $8,700, deduct $7,700, (4) add $2,000 (5) add $8,880, deduct $7,800, (6) add $9,000, deduct $8,000, (7) add $16 per lin.ft., (8) deduct $13 per lin.ft., (9) deduct $600. Noted July 22.

Tenn., Chattanooga—Extending Workroom—Treas. Dept., Wash., D. C., received bids July 28, extending in U. S. Post Office and Courthouse, here, from G. E. Wright, Monadnock Blk., Chicago, $14,900; W. P. Thurston, Merchants Natl. Bank, Richmond, Va., $9,400. Noted July 8.

Mich., Battle Creek — Remodeling Post Office—Treas. Dept., Wash., D. C., received only bid July 30, remodeling here, from W. McDonald Constr. Co., St. Louis, Mo., $8,989. Noted July 8.

★**Ia., Des Moines**—Changes, Alterations and Additions—Treas. Dept., Wash., D. C., let contract altering, etc., U. S. Post Office, here, to C. Weitzs' Sons, 713 Mulberry St., $14,461 (90 days).

Idaho Road Work—Bureau Pub. Rds., U. S. Dept. Agriculture, Missoula, Mont., received lowest 3 bids July 10, building road in Nez Perse Natl. Forest, Sect. from Sta. 145 plus 25 to Sta. 735 plus 00, Idaho Co., from O. Hansen, Empire State Bldg., Spokane, Wash., $204,915 alternate $205,459; Rich, Markus & Crowe, $212,179, alternate $213,991; General Constr. Co., Peyton Bldg., Spokane, $234,065 alternate $233,932.

Idaho—Road Work—Bureau Pub. Rds., U. S. Dept. Agriculture, Missoula, Mont., received lowest 3 bids July 9, constructing roads in Clearwater Natl. Forest Sect. from Sta. 2614 to 3135. Clearwater Co., from Sloan & Carlson, Spokane, Wash., $172,827, alternate $171,631; Rich, Markus & Crowe, Missoula, Mont., $189,140, alternate $188,-70[illegible]; Rajotte, Fobert & Winters, Ziegler Bldg., Spokane, $227,757, alternate $220,580.

Miscellaneous

PROPOSED WORK

Road Materials—Boston, Mass.—Bd. Pub. Wks. soon lets contract furnishing 40,000 lin.ft. straight edgestone, 200 small corners and 3,600 lin.ft. circle stone.

Elevating Equipment—Buffalo, N. Y.—H. E. Plumer, engr., Ellicott Sq., soon lets contract furnishing elevating equipment for 10-story warehouse, for Knowlton Warehouse Co., 93 Perry St.

Bituminous Material—St. George, S. I., N. Y. — C. D. Van Name, pres. Richmond Boro., received no bids furnishing and delivering 55,000 gal. About $7,000. Work will be readvertised. Noted July 8.

Grits—St. George, S. I., N. Y.—C. D. Van Name, pres. Richmond Boro., rejected bids received July 8, furnishing and delivering 600 cu.yd. grits in Dist. 3. Work will be readvertised. About $3,000. Noted July 1.

Garbage Reduction Plant, etc.—Syracuse, N. Y.—Common Council plans to issue $94,000 bonds for garbage reduction plant and $106,000 for park and playground.

Port and Harbor Improvements — Baltimore, Md.—City election Nov. 2, to vote on $10,000,000 bonds to build docks, piers and warehouses. H. G. Perring, City Hall, ch. engr.

Canal Wall—Washington, D. C.—Dist. Comrs. and Federal Government appropriated 45,000 to reconstruct canal wall.

Steel—Sidney, O.—C. B. De Weese Co. soon lets contract furnishing necessary steel for building 3 story, 83 x 166 ft. theatre, J. Q. Adams, New Southern Hotel, Columbus, archt.

Dry Dock—Milwaukee, Wis.—Amer. Shipbuilding Co., foot 54th St., N. W., Cleveland, having plans prepared for rein.-con. and piling dry dock, foot Washington St., here. About $1,250,000. Private plans.

Transmission Line, etc.—St. Louis, Mo.—City plans to install transmission line and equipment for lighting highways and parks and replacing gas and gasoline lights. About $345,000. J. L. Rilliet, city engr.

Dam—Bouse, Ariz.—R. M. Stene et al plan to build 140 ft. dam across Williams River, to be 110 ft. above river.

BIDS DESIRED

Gasoline—Brooklyn, N. Y.—Until Aug. 11, by E. Riegelmann, boro. pres., furnishing and delivering 20,000 gal. gasoline.

Locomotive Crane—Buffalo, N. Y.—G. Elias & Bro., Inc., 965 Elk St., receiving bids furnishing one 8 wheel locomotive crane, MCB Spec., standard gauge, 50 ft. boom.

Fire Apparatus — Phillipsburg, N. J. — Until Aug. 11, by city, furnishing 1 triple combination 500 gal. per minute motor driven fire apparatus. J. H. Houser, dir. Pub. Safety; advertised in this issue.

Street Cleaning, etc.—Phila., Pa.—Until Sept. 15, by city, cleaning streets and collecting ashes and rubbish for 1921, (Schedules 1 and 2); collecting and disposing of garbage, dead animals, etc., for 1921, also disposing without collecting, for 1 and 5 years respectively (Schedule 3); new equipment for street cleaning (Schedule 4); new equipment for collecting ashes a nd rubbish (Schedule 5); new equipment for collecting garbage, dead animals, etc., (Schedule 6); used equipment for street cleaning (Schedule 7); used equipment for collecting ashes and rubbish (Schedule 8); used equipment for collecting garbage, dead animals, etc. (Schedule 9). F. H. Caven, dir. Dept. Pub. Wks.; advertised in this issue.

Wharf—New Orleans, La.—Until Aug. 17, by Bd. Port Comrs. furnishing all material and construction Pauline St. wharf extension; advertised in this issue.

Ditcher-Nicollet, Minn. (St. Peter P. O.)—Until Aug. 10, by G. Zerwas, village recorder, for 1 Buckeye traction ditcher.

Lead Pipe—St. Paul, Minn.—Until Aug. 9, by H. W. Austin, city purch. agt., furnishing 100 coils, ⅜ in.; 100 coils, ¾ in.; 20 coils, 1 in.; 10 coils, 1¼ in.; and 10 coils, 1½ in., extra strong lead pipe for water dept. O. Claussen, city engr.

Lamp Posts and Gas Mantles—St. Louis, Mo.—Until Aug. 17, by Bd. Pub. Serv., furnishing, installing and maintaining gas lamp posts, and gas there to, also incandescent gas mantle lamps, on all streets, for 1 year beginning Sept. 1. About 200,000 and 250,000 respectively. E. R. Kinsey, City Hall, pres.

Wharf—Bass River, N. S.—Until Aug. 17, by R. C. Desrochers, secy., Dept. Pub. Wks., Ottawa, building wharf here. About $25,000.

Dam—Montreal, Que.—Until Aug. 19, by Quebec Streams Comn., Parliament Bldg., 59 Notre Dame St. E., building storage dam across Savane River. O. Lefebvre, ch. engr.

Wharf—Campbell River, B. C.—Until Aug. 17, by R. C. Desrochers, secy. Dept. Pub. Wks., Ottawa, repairing wharf, here. About 25,000.

Wharf—Grahm Landing, B. C.—Until Aug. 17, by R. C. Desrochers, secy., Dept. Pub. Wks., Ottawa, building floating wharf here on Arrow Lake. About $27,000.

Wharf—Kootenay, B. C.—Until Aug. 17, by R. C. Desrochers, secy., Dept. Pub. Wks., Ottawa, building floating wharf at Carrolls Landing on Arrow Lake.

Wharf—Nanaimo, B. C.—Until Aug. 17, by R. C. Desrochers, secy., Dept. Pub. Wks., Ottawa, building wharfs on Moresby Island and Lyall Harbor, also on South Gabriola Island. About $37,000 and $35,000 respectively.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Castings—Boston, Mass.—City received only bid July 27, furnishing 70,050 lb. castings, from Mechanics Iron Co., 38 Kemble St., Roxbury, $0.065 per lb.

★**Ferry Drop—Boston, Mass.**—City let contract repairing ferry drop to W. H. Ellis & Son Co. 479 Meriden St. $9,287.

★**Gate Valves—Boston, Mass.**—City let contract furnishing twenty 16 in. gate valves, to Kennedy Valve Mfg. Co., 47 India St., $9,532. Noted July 22.

Portable School Houses—Boston, Mass.—City received bids July 27, building 15 portable school houses, from P. F. and J. J. Lamont, 1105 Dorchester Ave., Dorchester, $65,040; M. Saretto, $65,550; R. J. Conley, $65,600.

★**Road Materials—Boston, Mass.**—City let contract furnishing 50,000 gal. hot tar and 50,000 gal. cold tar patching materials, to Independent Coal Tar Co. 26 Broad St., 0.21 per gal. Noted July 29.

★**Dam and Water Gates—Chicopee Falls, Mass.**—Chicopee Mfg. Co., West Main St., let contract building 30 x 40 ft. rein.-con. dam and 10 water gates, to F. T. Ley & Co., Inc. 499 Main St., Springfield.

★**Fire Escapes—New London, Conn.**—Bd. Educ. let contract building fire escapes on various schools to O. Woodworth Co., 36 Pearl St., $45,225.

★**Terminal Freighthouse—New York, N. Y.**—E. S. Walsh, supt. pub. wks., Capitol, Albany, let contract building at Mott Haven, Bronx Boro., here, to Post & McCord, Exterior and 144th Sts., $150,468. Noted June 24.

★**Road Materials—St. George, S. I.**—C. D. Van Name, pres. Richmond Boro., let contract to J. E. Donovan, furnishing and delivering 345 ton natural lake asphalt, cost $15,180, 300 cy.yd. 1½ in. broken stone, 125 cu.yd. screenings and 150 cu.yd. ¾ in. broken stone of trap rock, cost $8,348, 350 cu.yd. grits, for Dist. 1, cost $1,255, 200 cu.yd. for Dist. 2, cost $1,080; to J. Johnson Sons, West New Brighton, 1,680 cu.yd. ¾ in. broken stone, 265 ton limestone dust and 325 cu.yd. cowbay sand, cost $13,591, 200 cu.yd. 1½ in. broken stone and 100 cu.yd. ¾ in. broken stone of traprock, $1,688. Noted July 1.

★**Dock—Yonkers, N. Y.**—City let contract building dock at foot of Main St., to G. W. Rogers & Co., 29 Bway., New York City, $151,135.

★**Park—Camden, N. J.**—City let contract improving Cooper Sq. Park, including building foundation walls, pool, etc., to Doyle & Co., 1519 Sansom St., Phila. About $75,000. Noted April 22.

Lake — Pittsburgh, Pa. — City received bids July 26, enlarging and improving Lake Elizabeth, West View Park, from A. V. Purnell, 507 Jarvella St., $32,218; F. and F. Duilus, 40 Boundary St., $34,665. Noted July 22.

★**Posts—Milwaukee, Wis.**—City let contract to Massey Concrete Products Co., 122 South Michigan Ave., Chicago, furnishing concrete posts for street lighting as follows: 1,000 posts at $15 each, 2 at $18, 7 at $30, 519 at $27, 364 at $32, 254 at $40, 96 at $47, 1,400 single brackets at $5.50 each and 150 double brackets at $8 each.

STREETS AND ROADS

Steam Heating System — Minneapolis, Minn.—Bemis Bros. Bag Co., 604 South 4th St., let contract installing heating system in 7 story, 65 x 150 ft. factory at 600 4th St. S., to Hankee Heating Co., 922 2nd Ave. S.

Cable—St. Louis, Mo.—City received bids July 22, furnishing 171 mi. lead sheathed and steel tape lead sheathed cable, from Western Electric Co., 810 Spruce St., $162,807, Commercial Electrical Supply, Bway. and Spruce St., Insulated Wire Co. and Central Telephone & Electric Co., 310 North 11th St., each $166,365.

OFFICIAL PROPOSALS

Bids: Aug. 18.

Construction of Substructure of Bridge

Augusta, Me.

Separate sealed tenders addressed to the undersigned and endorsed on the envelope "Tender for the Construction of the Substructure of the Edmundson, M. M. Madawaska (Me.) International Bridge" will be received at the office of the Supervising Engineer, Department of Public Works, City of Quebec, Province of Quebec, Canada, up to the hour of 3 p.m., Wednesday, Aug. 18, 1920, and there publicly opened and read.

Tenderers are notified that:

Tenders will not be considered unless made on the forms supplied and signed with the actual signature of the tenderer, stating his occupation and place of residence. In the case of firms the actual signature and nature of the occupation and place of residence of each member of the firm must be given.

Each tender must be accompanied by an accepted cheque, on a chartered bank, equal to 10% of the total amount of the tender and payable to the order of the Minister of Public Works, Canada, and the State Commission of Highways, Maine, jointly, as a guarantee that the tenderer will execute the contract within ten days of the award and furnish a satisfactory bond amounting to one-half of the contract price for the faithful performance of the work.

The cheque will be forfeited should tenderer fail to enter into the contract when called upon to do so, and returned if the tender be not accepted.

Plans, specifications and forms of tender, bond and contract can be seen, and form of tender obtained, at the following places in Canada: Department of Public Works, Offices, Ottawa, Ont.; St. John, N. B.; Fredericton, N. B.; Quebec, P. Q.; Montreal, P. Q.; also at the Offices of the Postmaster at Edmundson, N. B., and at the Offices of the State Highway Commission, Augusta, Maine.

The Department of Public Works of Canada, and the State Highway Commission of the State of Maine do not bind themselves to accept the lowest of any tender.

By order of

R. C. DESROCHERS, Secretary.
Department Public Works, Canada.
PAUL D. SARGENT, Chief Engineer,
Maine State Highway Commission.

N. B.—The time for the opening of bids has been extended one week.

Bids: Aug. 13.

Sanitary Work

Bedford Hills, N. Y.

Sealed proposals for Sanitary Work—Repairs to Sewage Disposal Plant, State Reformatory for Women, Bedford Hills, N. Y., will be received by Hon. Wm. G. Barrett, President, Board of Managers, State Reformatory for Women, Bedford Hills, N. Y., until 10:30 a.m., on Friday, Aug. 13, 1920, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of five per cent (5%) of the amount of the proposal. The contractor to whom the award is made will be required to furnish surety company bond in the sum of fifty per cent (50%) of the amount of the contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of Specification No. 3561. Drawings, specifications and blank forms of proposal may be consulted at the State Reformatory for Women, Bedford Hills, N. Y., at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. PILCHER, Capitol, Albany, N. Y.

Dated: July 23, 1920.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Aug. 24.

Construction of Memorial Bridge

SUPERINTENDENT OF PUBLIC GROUNDS AND BUILDINGS,
COMMONWEALTH OF PENNSYLVANIA

Harrisburg, Pa.

Sealed proposals, accompanied by a check on a solvent bank or trust company, duly certified by a proper officer thereof, in the sum of twenty-five thousand ($25,000) dollars, as a proposal guaranty, will be received at the Office of the Superintendent of Public Grounds and Buildings of the Commonwealth of Pennsylvania, at Harrisburg, Pa., until 10 o'clock a.m., Tuesday, Aug. 24, 1920, for the construction of a Soldiers' and Sailors' Memorial Bridge, with Memorial Pylons at the western end thereof, together with the necessary approaches thereto, from a point on what is now State Street, in the Capitol Park, in the City of Harrisburg, following the line of State Street, across the tracks of the Pennsylvania Railroad, to a point at or near Thirteenth Street, having a length of approximately 2,687 feet 6 inches.

Specifications, drawings, proposal and contract forms are on file and can be seen in the Office of the Superintendent of Public Grounds and Buildings at Harrisburg, Pa.; the Office of the Chief Engineer in Baltimore, and in the Office of the Architect in New York.

Contractors may obtain two sets of the plans and specifications by depositing the sum of twenty-five ($25) dollars with the Superintendent, Engineer, or Architect. This deposit will be refunded upon the return of all sets without marking, disfigurement or other damage within ten days after the award of the contract.

The right is reserved to reject any or all proposals or parts thereof.

The successful bidder, when the contract is awarded will be required to furnish a satisfactory surety bond in a sum equal to twenty-five (25%) per cent of the contract awarded, to guarantee the faithful performance of the contract. Bidders must file with their proposal a letter signed by an authorized agent, the name of the bonding company who thereby agrees to bond the contractor, should he be awarded the contract by the Commonwealth of Pennsylvania.

BY ORDER OF THE
BOARD OF COMMISSIONERS OF
PUBLIC GROUNDS AND BUILDINGS,
COMMONWEALTH OF PENNSYLVANIA.
T. W. TEMPLETON, Superintendent.
SAMUEL B. RAMBO, Secretary.
J. E. GREINER & CO.,
Engineers,
Fidelity Building,
Baltimore, Md.
ARNOLD W. BRUNNER, Architect,
101 Park Avenue, New York City.

Bids: Aug. 23.

Sewage Treatment Plant Extensions

STATE HOSPITAL

Allentown, Pa.

Sealed proposals for the above contract work will be receivd by the Board of Trustees, State Hospital, Allentown, until 10 a.m., Monday, Aug. 23, 1920.

The work consists of approximately 1,000 cu.yd. excavation, 600 cu.yd. embankment, 450 cu.yd. reinforced concrete, 15 tons steel reinforcement, 180 cu.yd. rubble masonry, 1,700 cu.yd. broken stone, 7,000 feet split tile, 1,000 feet t.c. pipe, 12 tons c.i. pipe, chemical house 10 ft. x 20 ft., valves, fittings, steel shapes and miscellaneous castings.

Each proposal must be accompanied by a certified check for $500. Successful contractor must file surety bond for total estimated amount of contract. The right is reserved to reject any or all bids.

Plans and specifications can be seen at the office of the Superintendent, State Hospital, Allentown, and at Design and Construction Section, State Health Department, 22 South Third Street, Harrisburg, and sets may be obtained by personal or mail application after Monday, Aug. 2, 1920, at the former address upon certified check or cash deposit of $25 for each contract set.

HENRY I. KLOPP, M. D.,
Superintendent.
HARRY C. TRENKLER,
Pres. Board of Trustees.

Bids: Aug. 18.

Construction of Superstructure of Bridge

Augusta, Me.

Separate sealed tenders addressed to the undersigned and endorsed on the envelope "Tender for the Construction of the Superstructure of the Edmundson N. B.-Madawaska (Me.) International Bridge" will be received at the office of the Supervising Engineer, Department of Public Works, City of Quebec, Province of Quebec, Canada, up to the hour of 3 p.m., Wednesday, Aug. 18, 1920, and there publicly opened and read.

Tenderers are notified that:

Tenders will not be considered unless made on the forms supplied and signed with the actual signature of the tenderer, stating his occupation and place of residence. In the case of firms the actual signature and nature of the occupation and place of residence of each member of the firm must be given.

Each tender must be accompanied by an accepted cheque, on a chartered bank, equal to 10% of the total amount of the tender and payable to the order of the Minister of Public Works, Canada, and the State Commission of Highways, Maine, jointly, as a guarantee that the tenderer will execute the contract within ten days of the award and furnish a satisfactory bond amounting to one-half of the contract price for the faithful performance of the work.

The cheque will be forfeited should the tenderer fail to enter into the contract when called upon to do so, and returned if the tender is not accepted.

Plans, specifications and forms of tender, bond and contract can be seen, and form of tender obtained, at the following places in Canada: Department of Public Works, Offices, Ottawa, Ont.; St. John, N. B.; Fredericton, N. B.; Quebec, P. Q.; also at the Offices of the State Highway Commission, Augusta, Maine.

The Department of Public Works of Canada, and the State Highway Commission of the State of Maine do not bind themselves to accept the lowest of any tender.

By order of

R. C. DESROCHERS, Secretary,
Department Public Works, Canada.
PAUL D. SARGENT, Chief Engineer,
Maine State Highway Commission.

N. B.—The time for the opening of bids has been extended one week.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 17	Brooklyn, N. Y.	Aug. 12
Aug. 17	Long Island City, N. Y.	Aug. 12
Aug. 17	St. George, S. I., N. Y.	Aug. 12
Aug. 23	Middletown, N. Y. Adv. Aug. 5 and 12.	Aug. 5
Aug. 24	Cedarburg, Wis.	Aug. 5
Aug. 25	Marcy, N. Y.	July 29

SEWERS

Aug. 13	Bedford Hills, N. Y.	Aug. 5
Aug. 16	Lebanon, Pa.	Aug. 5
Aug. 16	Long Island City, N. Y.	Aug. 12
Aug. 17	Armour, S. D.	July 29
Aug. 17	Chester, Pa. Adv. Aug. 12.	Aug. 12
Aug. 18	Baltimore, Md.	Aug. 12
Aug. 20	Brooklyn, N. Y.	Aug. 12
Aug. 23	Allentown, Pa.	Aug. 5
Aug. 23	Euclid, O.	Aug. 12
Aug. 25	Reading, Pa. Adv. Aug. 5 and 12.	Aug. 5
Aug. 31	St. Louis, Mo.	Aug. 12

BRIDGES

Aug. 17	Rochester, N. Y. Adv. July 22 to Aug. 12.	July 22
Aug. 18	Augusta, Me. Adv. Aug. 5 and 12.	Aug. 5
Aug. 18	Michigan	Aug. 12
Aug. 18	Baltimore, Md.	Aug. 12
Aug. 19	Idaho	Aug. 12
Aug. 20	Missouri	Aug. 5
Aug. 20	Bristol, Conn.	July 15
Aug. 21	Fredericton, N. B.	Aug. 12
Aug. 23	Claxton, Ga.	July 22
Aug. 23	Bonham Tex.	Aug. 5
Aug. 24	Harrisburg, Pa. Adv. July 29 to Aug. 12.	July 29
Aug. 25	North Carolina Adv. Aug. 5 and 12.	Aug. 5
Aug. 25	Powys (Trout Run P. O.), Pa.	Aug. 5
Aug. 25	Reading Pa. Adv. Aug. 5 and 12.	Aug. 5
Aug. 25	Maine Adv Aug 12	Aug. 12
Sept. 6	Nenana, Alaska	Aug. 5
Sept. 6	Burlington, Ont.	Aug. 12
Sept. 10	Victoria, B. C.	Aug. 12
Sept. 15	Portsmouth, N. H. Adv. Aug 12	Aug. 12

STREETS AND ROADS

Aug. 13	New York, N. Y.	Aug. 5
Aug. 14	Charleston, W. Va. Adv. July 22 to Aug. 12.	July 22
Aug. 15	Monticello, Miss.	July 29
Aug. 15	Denver, Colo.	Aug. 5
Aug. 16	Palestine, Tex.	Aug. 12
Aug. 16	New York, N. Y.	Aug. 12
Aug. 16	St. Paul, Minn.	Aug. 12
Aug. 17	Sault Ste. Marie, Mich.	Aug. 12
Aug. 17	Denton, Tex.	Aug. 12
Aug. 17	Ontario	Aug. 12
Aug. 17	Columbus, O.	Aug. 5
Aug. 17	Lecompte, La.	Aug. 5
Aug. 17	Sault Ste Marie, Mich.	Aug. 5
Aug. 17	Decatur, Ga.	Aug. 5
Aug. 17	Lapeer, Mich.	Aug. 5
Aug. 17	Leavenworth, Kan.	Aug. 5
Aug. 18	Wisconsin	Aug. 12
Aug. 18	New York, N. Y.	Aug. 12
Aug. 18	Arkansas	Aug. 5
Aug. 18	Carrollton, Ga.	July 29
Aug. 18	Canyon, Tex.	July 29
Aug. 18	Kalamazoo, Mich.	Aug. 12
Aug. 18	Three Rivers, Que.	Aug. 5
Aug. 18	Baltimore, Md.	Aug. 12
Aug. 19	Idaho	Aug. 12
Aug. 19	New York, N. Y.	Aug. 12
Aug. 20	Colorado	Aug. 12
Aug. 20	Tennessee	Aug. 12
Aug. 20	Tennessee	Aug. 5
Aug. 20	Rutherfordton, N. C.	Aug. 5
Aug. 20	Ohio	July 29
Aug. 20	Amarillo, Tex.	July 29
Aug. 20	Amarillo, Tex. Adv. July 29 to Aug. 12.	July 22
Aug. 20	Oswego, Kan.	Aug. 5
Aug. 20	St. Joseph Adv. Aug. 5 and 12.	Aug. 5
Aug. 21	Missouri	Aug. 12
Aug. 23	New Jersey	Aug. 12
Aug. 24	Michigan	Aug. 12
Aug. 24	Webster Springs, W. Va. Adv. July 29 to Aug. 12.	July 29
Aug. 24	Missouri	Aug. 5
Aug. 24	Columbia, S. C. Adv. Aug. 5 and 12.	Aug. 5
Aug. 24	Glenville, W. Va.	Aug. 12
Aug. 24	Morgantown, W. Va	Aug. 12
Aug. 25	North Carolina	Aug. 12
Aug. 26	Elkins, W Va	Aug. 12
Aug. 27	Troy, Kan.	Aug. 5
Aug. 29	North Bergen, N. J.	Aug. 5
Sept. 1	Wilson, N. C. Adv. Aug. 12.	Aug. 12
Sept. 3	Olathe, Kan.	Aug. 5
Sept. 7	Greenfield, Ind.	Aug. 12
Sept. 7	Aitkin, Minn.	Aug. 12
Sept. 8	Cottonwood Falls, Kan.	Aug. 12
Sept. 21	St. George, S. C.	Aug. 12

EXCAVATION AND DREDGING

Aug. 16	Olivia, Minn.	Aug. 12
Aug. 16	Madison, Minn.	Aug. 12
Aug. 18	Albert Lea, Minn.	Aug. 5
Aug. 19	St. Peter, Minn.	Aug. 12
Aug. 24	Cedar, Minn.	Aug. 12
Aug. 25	St. John, N. B.	Aug. 12

INDUSTRIAL WORKS

Aug. 15	Port Arthur, Ont.	July 22
Aug. 17	New Orleans, La. Adv. Aug. 5 and 12.	Aug. 5
Aug. 24	Spring City, Pa.	Aug. 12
Sept. 1	Hutchinson, Kan.	Feb. 19

BUILDINGS

Aug. 14	Prospect, O.	Aug. 5
Aug. 15	Mitchell, S. D.	Aug. 5
Aug. 15	Hinckley, Minn.	Aug. 5
Aug. 15	Montreal, Que.	July 22
Aug. 15	Verdun, Que.	July 29
Aug. 16	Sioux City, Ia.	June 17
Aug. 16	Kalamazoo, Mich.	Aug. 5
Aug. 19	Coburn, Ia.	Aug. 5
Aug. 19	Syracuse, N. Y.	Aug. 5
Aug. 20	Detroit, Mich.	Aug. 12
Aug. 20	Ely, Minn.	Aug. 12
Aug. 21	London, Ont.	July 22
Aug. 21	Rolla, N. D.	Aug. 5
Aug. 23	Brooklyn, N. Y.	Aug. 12
Aug. 24	Lincoln, Kan.	Aug. 12
Aug. 25	Lakewood (Cleveland P. O.), O.	Aug. 12
Aug. 26	Urbana, O.	Aug. 12
Aug. 26	Ottawa, Ont.	Aug. 12
Aug. 30	Petersburg, Ind.	Aug. 12
Aug. 31	Manchester, N. H.	Aug. 12
Sept. 1	Cedar Rapids, Ia.	Aug. 5
Sept. 3	Ft. Wayne, Ind.	July 29
Sept. 3	Ollie, Ia.	Aug. 12
Sept. 2	Jeanette, Pa.	Aug. 12
Sept. 15	Denver, Col.	Aug. 12
Sept. 15	Denver, Col.	Aug. 5

FEDERAL GOVERNMENT WORK

Aug. 16	Diversion Dam—Florence, Ariz.	July 15
Aug. 16	Remodeling Boiler — Ft. Stanton, N. M.	July 29
Aug. 17	Boiler—Cleveland, O.	Aug. 5
Aug. 17	Road Work—Washington, D. C.	Aug. 5
Aug. 18	Pier — Spec. 4165 — Guantanamo, Cuba	July 22
Aug. 18	Cast Iron Ballast Balls, etc. —Tompkinsville, N. Y.	Aug. 3
Aug. 19	Steel Bell Buoys, etc. — Tompkinsville N. Y.	Aug. 5
Aug. 23	Stern Wheel Steel Towboat Hull—Vicksburg, Miss. Adv. July 29 to Aug. 12.	Aug. 5
Aug. 23	Remodeling Post Office — South Bend, Ind.	Aug. 5
Aug. 24	Canal—Caldwell, Idaho	July 15
Aug. 25	Heating System—Spec. 4189 —Mare Island, Cal.	Aug. 12
Aug. 25	Station, etc.—Fairport, O. Adv. Aug. 5 and 12.	Aug. 5
Aug. 25	Steam Distributing and Condensate Return System — Spec. 4258—Hampton Rds, Va. Adv. Aug. 5 and 12.	Aug. 5
Aug. 26	Return Flue Boilers—Memphis, Tenn.	Aug. 5
Aug. 26	Steel Hull—Memphis, Tenn. Adv. July 29 to Aug. 12.	Aug. 5
Aug. 26	Dredging — Providence, R. I. Adv. July 29 to Aug. 12.	Aug. 5
Aug. 27	Remodeling Post Office and Court House — Roanoke, Va.	Aug. 5
Aug. 27	Sewage Ejector—Del Rio, Tex.	Aug. 12
Aug. 30	Stern Wheel Steamboat — St. Louis, Mo. Adv. Aug. 5 and 12.	Aug. 5
Aug. 31	Remodeling Post Office—Astoria, Ore.	Aug. 12
Sept. 3	Post Office—Columbia, S. C.	Aug. 5

MISCELLANEOUS

Aug. 16	Cement, Crushed Rock, etc. —St. Paul, Minn.	Aug. 12
Aug. 17	Motor Driven Pump, Oil Switches, Air Compressor—Florence, Wis.	July 29
Aug. 17	Piles—Detroit, Mich.	July 29
Aug. 17	Wharf—Bass River, N. S.	Aug. 5
Aug. 17	Wharf — Campbell River, B. C.	Aug. 5
Aug. 17	Wharf—Graham Landing, B. C.	Aug. 5

Bids Close		See Eng. News-Record
Aug. 17	Wharf—New Orleans, La.	Aug. 5 Adv. Aug. 5 and 12.
Aug. 17	Rails—Philadelphia, Pa.	Aug. 12
Aug. 17	Pumps—Summit, N. J.	Aug. 12 Adv. Aug. 12.
Aug. 17	Wharf—Kootenay, B. C.	Aug. 5
Aug. 17	Wharf—Nandimo, B. C.	Aug. 5
Aug. 17	Lamp Post and Gas Mantles—St. Louis, Mo.	Aug. 5
Aug. 18	Ash Fillers, Coal Platform, etc.—Baltimore, Md.	Aug. 12
Aug. 18	Plumbing, etc.—Brooklyn, N. Y.	Aug. 12
Aug. 19	Dam—Montreal, Que.	Aug. 5
Aug. 23	Sludge Pump and Motor—Willmar, Minn.	Aug. 12
Aug. 31	Wharf—Owen Sound, Ont.	Aug. 12
Sept. 6	Retaining Wall, etc.—Cleveland, O.	Aug. 12
Sept. 9	Terminal—Buffalo, N. Y.	Aug. 12 Adv. Aug. 12.
Sept. 9	Terminal — Rouses Point, N. Y.	Aug. 12 Adv. Aug. 12.
Sept. 15	Street Paving, etc.—Philadelphia, Pa.	Aug. 5 Adv. Aug. 5 and 12.

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mich., Detroit—City election Aug. 31, to vote on $5,000,000 bonds to build filtration plant, with 300,000,000 gal. daily capacity, and $7,000,000 bonds to build extension to water mains. T. A. Leisen, Waterworks Park, engr.

Minn., Aitkin—T. R. Foley, city clk., soon receives bids building artesian well of 200,000 gal. daily capacity.

Minn., Pipestone—City rejected bids received July 15, improving waterworks system. About $50,000. Work will be readvertised. L. P. Wolff, 1000 Guardian Life Bldg., St. Paul, engr. Noted June 29

Kan., Osawatomie—City having preliminary plans prepared for 2,000,000 gal. reservoir and equipment. J. W. Allard, city clk. Black & Veatch, Interstate Bldg., Kansas City, Mo., engrs.

Kan., Portis—City had plans prepared and soon receives bids building new waterworks system, to include new well and distributing system. About $32,000. Archer & Stevens, 609 New England Bldg., Kansas City, Mo., engrs. Noted June 24.

S. D., Sioux Falls—See "Industrial Works."

Ont. East View—Town voted $75,000 bonds to build c.i. water mains and install pumping machinery.

BIDS DESIRED

N. Y., Brooklyn—Until Aug. 17, by N. J. Hayes, comr. water supply, gas and electricity, Municipal Bldg., New York City, hauling and laying watermains and appurtenances in Brighton Beach, Coney Island and Neptune Aves.

N. Y., Long Island City—Until Aug. 17, by N. J. Hayes, comr. water, gas and electcity, Municipal Bldg., New York City, hauling and laying watermains and appurtenances in Nott and 16th Aves., Sherman St., Maxwell and 59th Aves., Murray and 25th Sts. and in head of Vleigh and 76th Rds., Queens Boro.

N. Y., St. George, S. I.—Until Aug. 17, by N. J. Hayes, comr. water, gas and electricity, Municipal Bldg. New York City, hauling and laying watermains and appurtenances in Barnard St., Bradley, Chicago, Davis, Egbert, Holland, Mada, St. Marys and Winant Aves., Duer Lane, Maple Parkway and Continental Pl., Richmond Boro.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Wis., River Falls—City will build 150 ft. solid masonry dam, 24 ft. high. About $25,000. Work will be done by day labor. Noted July 8.

★Minn., Albert Lea — City let contract building 1,500,000 gal. reservoir, also pressure concrete tank, 140 ft. high, to McManis & Tarnoski, 484 Endicott Bldg., St. Paul. About $70,000.

★Minn., Ely—City let contract for alterations to municipal water and light plant, to L. M. Bartlett, 604 Builders' Exch., Minneapolis, $14,960; piping, to Amer. Heating Co., 228 West Michigan St., Duluth, $17,700.

★Kan., Arcadia—City let contract improving waterworks systems, to E. L. Garrettson & Bros., Ft. Scott. About $30,000. Noted March 18.

Sewers

PROPOSED WORK

Mass., Boston—City plans to build surface drains and sanitary sewers in Saville, Wren, et al streets. About $46,814.

N. J., Atlantic City—City having plans prepared building sewage disposal plant. About $60,000. C. Potts, 30 Church St., New York City, engr.

O., Akron—City receives bids about Sept. 4 building sewer in Morgan St. between Grant and Brown Sts., also 1,139 ft. extension in Firestone Blvd. from South Main St. to right of way of Northern Ohio Traction & Light Co. About $53,850. J. E. Root, supt. Bureau of Sewage.

Mich., Detroit—City election Aug. 31, to vote on $25,000,000 bonds to build sewers in various streets. Plans include Linwood system extension cost, $150,000; sewer in Six Mile Rd. from Conant to Linwood Aves., $1,759,000; 3rd St. Extension, $900,000; Michigan Ave. Sewer, $80,000; small arms, other sewers, $1,200,000; Livernois Ave. Sewer, $1,500,000; Conners Creek Project, $13,000,000; addition to Bates St. Sewer, $2,100,000; Joy Rd. Extension, $1,160,000; sewer in Six Mile Rd. from Linwood to Livernois Aves., $611,000; Seven Mile Rd., $2,200,000; Snyder Rd., $2,000,000; Connors Creek interceptors, $1,035,000. C. U. Hubbell, city engr.

S. D., Sioux Falls — See "Industrial Works."

Tex., Amarillo—City plans election soon to vote on $60,000 bonds to build sanitary sewers and $18,000 bonds, for sewage disposal plant. Address, Mayor.

Utah, Ogden—City plans to build sewers in various streets in Dist. 144, involving 22,000 ft. 8 in. vitr. pipe. About $150,000. W. M. Tracy, city engr.

BIDS DESIRED

N. Y., Brooklyn—Until Aug. 20, by E. Riegelmann, boro. pres., furnishing labor and material repairing pipe sewer in Greene Ave. at Washington Ave. Noted July 15.

N. Y., Long Island City—Until Aug. 16, by M. E. Connolly, pres. Queens Boro., building sewer and appurtenances in Flushing Ave. from Collins to Clermont Aves., Clermont Ave. from Flushing Ave. to Hemlock Pl., Laurel Hill Ave. from Jackson to Foster Aves. with temporary connections to sewer in Jackson Ave., Barnett Ave. from Laurel Hill to Middleburg Ave., Middleburg Ave. from Barnett Ave. to Packard St., Packard St. from Middleburg to Foster Aves., Skillman Ave. from Laurel Hill Ave. to Hancock Pl., Locust St. from Skillman to Foster Aves., also building temporary sanitary sewer and appurtenances in Prospect St. from Atlantic to Cumberland Sts.

Pa., Chester—Until Aug. 17, by B. Newsome, city clk., building sewers in Crozer and Mowry Sts.; advertised in this issue.

Md., Baltimore—Until Aug. 18, by Bd. Awards, c/o City Register, building hydrolytic tank and appurtenances, at Sewage Disposal Wks., on west shore of Back River, Baltimore Co., involving 11,500 cu.yd. excav., 1,100 cu.yd. Class "A," 600 cu.yd. Class "B" and 27 cu.yd. Class "C" concrete masonry, 138,000 lb. reinforcing rods, 33,000 sq.ft. expanded metal, two 12 in. and ten 24 in. circular sluice gates, .9 ton flaned special castings, removing concrete masonry, bulkheads and terra cotta pipe, also sludge digestion tank, pipe lines and appurtenances, 2,200 cu.yd. excav., 1,000 cu.yd. Class A" and 180 cu.yd. Class "B" concrete masonry, 124,000 lb. reinforcing rods, 9,800 sq.ft. expanded metal, 536 lin.ft. c.i. pipe, placing 2 iron ladders, 21 gate valves and sluice gates, removing c.i. pipe and concrete masonry; building extension to Stoney Run Trunk Sewer, near University Parkway, 162 lin.ft. 18 in. vitr. pipe sewer, 175 cu.yd. earth, 20 cu.yd. rock excav., etc. H. G. Perring, ch. engr.

O., Euclid—Until Aug. 23, by village laying water mains also storm and sanitary sewers in East 230th St., Ball, F. Morris, Priday, Wilmore, Westport Arms Aves., South Lakeshore Blvd., land Rd., Garland, Fern, Azalia, Marlene, Orchard and East Lawn Drives. About $100,000. F. A. Pease Eng. Co., 801 Marshall Bldg., Cleveland, engrs.

Mo., St. Louis—Until Aug. 21, by Bd. Pub. Serv., trenching, furnishing and laying 10,665 ft. sewers with manholes and other appurtenances, in Glaise Creek Sewer Dist. 17, involving 9,085 ft. 6-30 in. vitr. pipe and 1,580 ft. 39-48 ft. segmental brick. About $70,000. W. W. Horner, City engr, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Pelham Manor—Village let contract building storm water drains and sanitary sewers in various streets, to Smith Bros. Contg. Co., Inc., Pelham, $89,507.

★D. C., Wash.—Dist. Comrs., Dist. Bldg. let contract laying 2,750 lin.ft. 4 ft. 6 in. x 5 ft. 6 in. brick and concrete sewer pipes to W. F. Cush, 3rd and R Sts., $78,000.

O., Cleveland—City received bids July 22, building sewer in Miles Ave. from old to new city limits, from W. McDowell & Son, 10319 Miles Ave., $30,879; Amato Constr. Co., 343 The Arcade, $31,900; Gallagher-Burke Constr. Co., 1339 Irene Ave., $32,881; Nelson Ave. from East 99th to East 112th Sts. from A. J. Galvin, 343 The Arcade, $28,200; N. Iafornaro, 3218 Murray Hill Rd., $31,339; Gantose Constr. Co., Columbia Bldg., $34,079; Ferris Ave. from East 123rd to 131st Sts. from Sprague & Burkhart, 12011 Woodland Ave., $5,235; Stevens & McKeon, 343 The Arcade, $5,980.

★Mich., Detroit—City let contract furnishing labor and material building Laterals 3295 and 3296, to Western Constr. Co., 1208 Ford Bldg., $4935 and $10,358 respectively 3297, to Oakwood Constr. Co., 165 Fort Blvd., $17,511; 3302, to N. Mancini, 580 Concord St., $4,600; Coventry Blvd. Arm., to Lennane & McIlvenna, 1205 Book Bldg., $205,877; John R. Arm. to Jaykes & Affeld, 1208 Ford Bldg., $59,292; Charleston Ave., to J. Porath, 23 McGraw Bldg., $69,139. Noted July 22 and 29.

Mich., Detroit—Dept. Pub. Wks received bids July 29, furnishing labor and material building (1) Lateral 3280, between Gratiot, Roseberry and Promanade Sts., (2) 1,080 ft. Lateral 3304, Fisher, Crane, Georgia and Marcus Sts., 12-15 in. vitr. crock, (3) 5,970 ft. Lateral 3306, Connors, Lenox, Debuck and Forest Sts., 10-12 in. vitr. crock, (4) 1,428 ft. Lateral 3313, Jos. Campau, Mitchell, Carpenter and Hallock Sts., 12-18 in. vitr. crock, (5) 2,992 ft. Lateral 3315, Riopelle, Dequindre and Davison Sts., 12-20 in. vitr. crock, from Western Constr. Co., 1208 Ford Bldg., (1) $69,826, (3) $18,900; Langley & Barton, 100 Penobscot Bldg., (1) $76,328, (3) $18,647; Oakwood Constr. Co., 165 Fort Blvd., (1) $127,829, (3) $19,654, (4) $6,755; A. H. Haynes, 70 Davenport St., (2) $4,550; R. D. Baker, Penobscot Bldg., (4) $8,000, (5) $22,500. Noted July 22.

★Wis., Sheboygan—City let contract furnishing labor and material for excavating and laying 1.1 mi. vitr. sewers in Cooper Ave., to Olson & Murphy, Michigan Ave.

★Ia., Doon—City let contract building sanitary sewers, to R. Cox, Webster City, $43,543; sewage disposal plant, to Ward & Weighton, Sioux City, $14,634.

★Minn., LeRoy—City let contract building sanitary sewers in various streets, to O'Niel & Preston, St. Paul. About $52,000.

★Tex., San Antonio—City let contract building 4½ mi. sewers in Jones and Josephine Sanitary Sewer Dist. 56, to Campbell & Hengst, San Antonio. About $58,000.

★Utah, Ogden — City let contract furnishing labor and material for building sewers in Dist. 141, involving 5,500 ft. 8 in. vitr. pipe and 2,500 cu.yd. earth trenching, to Wheelwright Constr. Co., Ogden, $25,679.

Utah, Ogden—City received only bid July 15, building sewers in various streets in Dist. 142, involving 8,500 cu.yd. earth trenching and 22,000 ft. 8 in. vitr. pipe, from Wheelwright Constr. Co., Ogden, $93,208.

Bridges

PROPOSED WORK

W. Va., Logan—See "Miscellaneous."

Wis., Beloit—City Council passed ordinance authorizing $77,000 bonds to build bridge on Grand Ave. G. E. Herbnik, city engr.

Bridges (Continued)

Wis., Sheboygan—City plans to sell $200,000 bonds to build double lift steel bascule bridge, 80 ft. wide, on South 8th St., to have 2 concrete walks on sides. Klug & Smith, 69 Wisconsin St., Milwaukee, engrs.

Wis., West Bend—City having plans prepared building 24 ft. span, rein.-con. and steel bridge on Division St., to have 30 ft. roadway, two 6 ft. rein.-con. walks, earth approach and fill. Cost between $25,000 and $30,000. Parsons & Orbert, 216 West Water St., Milwaukee, engrs.

Ia., Bancroft—See "Algona."

Ia., Conrad—Grundy Co. (Grundy Center) having plans prepared building two 80 ft. span rein.-con. bridges, with 20 ft. roadway and 5 ft. sidewalk. About $30,000. E. A. Crary, Grundy Center, engr.

Ia., Algona—Kossuth Co. having plans prepared building one 70 ft. span bridge, near here, also one 80 ft. span bridge, near Bancroft, both to have 20 ft. roadway. Alternate bids will be received on steel pony truss and rein.-con. arch designs. About $25,000. D. L. Leffert, Algona, co. engr.

Kan., Wichita—City voted $175,000 bonds to build concrete and reinforced steel bridge over Big Arkansas River, at Maple St., here. Engineer not selected.

Tex., Corpus Christi—See "Streets and Roads."

Tex., Jasper—Jasper Co. having plans prepared and soon receives bids building 300 ft. bridge, 16 ft. wide, over Angelina River. Alternate "A," includes one 150 ft. steel span and two 75 ft. steel spans with rein.-con. piers, involves 813 cu.yd. rein.-con., 184,000 lb. structural steel, 11,601 ft. b.m. lumber, 450 cu.yd. wet and 2,543 cu.yd. dry excav., etc., cost, $54,054. Alternate "B," two 150 ft. steel spans with rein.-con. piers, 624 cu.yd. Class "B" rein.-con., 216,000 lb. structural steel, 23,331 ft. b.m. lumber, 336 cu.yd. wet and 2,543 cu.yd. dry excav., etc., $50,204. C. P. Hunter, Jasper, co. engr.

BIDS DESIRED

Maine—Until Aug. 25, by State Highway Dept., Augusta, building Bradbury Bridge, rein.-con., in Biddeford, York Co.; steel swing superstructure for Belfast Lower Bridge, Belfast, Waldo Co.; abutments and steel superstructure for Cumberland St. Bridge, Westbrook, Cumberland Co. P. D. Sargent, ch. engr.; advertised in this issue.

N. H., Portsmouth—Until Sept. 15, by Piscataqua River Bridge Comn., City Hall, building bridge across Piscataqua River between here and Kittery, Me. J. H. Bartlett, secy.; advertised in this issue. Noted July 29.

Md., Baltimore—Until Aug. 18, by Bd. Awards, c/o City Register, building 180 ft. rein.-con. bridge and approaches, over Gwynns Falls, on Windsor Mill Road, 48 ft. wide. H. G. Perring, ch. engr. Noted July 1.

Fla., Jacksonville—Jacksonville Terminal Co., Union Sta., and city receiving bids building Lee St. viaduct. About $300,000. F. Edwards, city engr.

Michigan—Until Aug. 18, by State Highway Dept., at office of Bd. Rd. Comrs. St. Clair Co., Port Huron, building State Reward Bridge R-82, 501, 101, over Belle River, Macomb and St. Clair Counties, 70 ft. low truss, rein.-con. floor, concrete piers, involving 27.6 cu.yd. rein.-con., 371.5 cu.yd. concrete, 25 ton steel and 900 cu.yd. wet channel excav.

Idaho—Until Aug. 19, by State Highway Dept., Boise, building four 140 ft. steel span bridges, over Walters Ferry, Canyon and Owyhee Counties, cost $75,000, also three 140 ft. steel span bridges at Grandview, in Ada and Owyhee Counties, $75,000, all to have wood trestle approaches and 18 ft. roadway.

N. B., Fredericton—Until Aug. 21, by C. B. Brown, Ch. Engr., Canadian Natl. Ry., Moncton, building substructure for railway bridge across St. John River here. Work involves 6,000 cu.yd. concrete, etc. About $210,000.

Ont., Burlington—Until Sept. 6, by Dept. Pub. Wks., Ottawa, removing present swing bridge, including substructure and superstructure and building foundations for single leaf bascule bridge, to include necessary excavation and cofferdams, over Burlington Canal. About $50,000. Bids will soon be received for superstructure. E. Lafleur, c/o Dept. Pub. Wks., Ottawa, engr. Noted April 1.

B. C., Victoria—Until Sept. 10, by City Council, building concrete substructure of bascule span bridge on Johnson St. About $100,000. F. M. Preston, City Hall, engr. Noted April 29.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Pa., Duboistown—Comrs. Lycoming Co. (Williamsport), let contract building 1,500 ft. steel truss bridge, over Susquehanna River,, to have seven 200 ft. spans on rein.-con. piers, to G. W. Rockwell, Sunbury, $441,268. Noted July 15.

★Pa., Pottstown—Comrs. Montgomery Co. (Norristown) let contract building bridge over Manatwaney Creek, on High St., to W. H. Just, Gwynedd Valley, $27,767.

★La., Plaquemine—Texas Pacific Ry., 165 Bway., New York City, let contract building 115 ft. single leaf, double track, heel trunnion bascule bridge, over Bayou Plaquemine, to Strauss Bascule Bridge Co., 104 South Michigan Ave., Chicago.

★Idaho—Bureau of Highways, Boise, let contract building five 175 ft. steel spans and one 175 ft. pile trestle bridges, with 18 ft. roadways, over Snake River, in Canyon and Owyhee Counties, to Union Bridge Co., 55 Argyle St., Portland, Ore., $61,884.

***Idaho**—State Highway Dept., Boise, let contract building two 85 ft. and two 75 ft. steel span, one 30 ft. and one 24 ft. I beam bridges also one 4 x 12 concrete culvert, all to have 18 ft. roadways, on Yellowstone Park Highway, Federal Aid Project 16, Jefferson Co., to Perham & Harris, St. Anthony. About $63,900.

Streets and Roads

PROPOSED WORK

Mass., Boston—City plans to grade baseball field on Boston Common, build granolithic walk on Charles St. Mall and resurface present walk from West St. over Common to baseball field. About $50,000.

Mass., Brookline—Dept. Pub. Wks., Boston, plans to pave Cushman Rd., Easton St., et al., sheet asphalt, Topeka, bitulithic or Filbertine type. About $30,000.

Conn., Bridgeport—Bd. Park Comrs. plan to pave Boulevard from Seaside Park to Fayersweather Island, waterbound macadam. About $50,000. J. A. McElroy, city engr.

N. Y., New York—Park Bd., at office of Dept. Parks, Municipal Bldg., rejected bids received July 15, furnishing labor and material building North Island of Plaza at 5th Ave. between 50th and 60th Sts. Noted July 22.

New Jersey—State Highway Dept., Broad St. Bank Bldg., Trenton, plans to pave 14 mi. road from Bridgeton to Mullica Hill, Cumberland Co., 18 ft. wide. About $500,000. T. J. Wasser, Trenton, engr.

W. Va., Berkeley Springs—Comrs. Morgan Co. rejected bids received July 20 grading 18 mi. Berkeley Springs-Paw Paw Rd., involving 160,000 cu.yd. excav., 25% rock, 25 cu.yd. Class "A," 500 cu.yd. Class "B" and 65 cu.yd. Class "C" concrete, 700 lb. steel bars, 250 ft. wood rail, 200 ft. overhaul and 5,200 ft. 4-24 in. vitr. piping. M. S. Harmison, clk. Noted July 8.

N. C., Charlotte—Mecklenburg Co. plans to hard surface 18 mi. Charlotte-Davidson Rd., 18 ft. wide. W. S. Fallis, c/o State Highway Dept., Raleigh, engr.

Fla., Titusville—Brevard Co. plans to build 16 mi. Melbourne-Kissimmee Rd. About $150,000. State Highway Comn. will pay ½ of cost.

La., Shreveport—City soon receives bids paving various streets, involving 50,000 sq.yd. asphaltic wearing surface on concrete base. H. E. Barnes, city engr.

La., Winnfield—Winn Co. voted $1,000,000 bonds to build roads. K. Watts, clk.

O., Euclid—Village plans to build concrete or stone sidewalks on East 230th St., Midland Rd., Ball, Faxton, Morris, Priday, Wilmore, Westport and Arms Aves. About $75,000. F. A. Pease Eng. Co., Marshall Bldg., Cleveland, engrs.

Ind., Ft. Wayne—City soon receives bids grading, draining, curbing and paving 356 ft. Cherry St., 26 ft. wide, involving 1,151 sq.yd. paving, 416 cu.yd. excav., 804 lin.ft. curbing, cost $5,200; 588 ft. Comparet St., 26 ft. wide, 1,774 sq.yd. paving, 432 cu.yd. excav., 1,209 lin.ft. curbing, $8,600; 455 ft. Howell St., 24 ft. wide, 1,258 sq.yd. paving, 702 cu.yd. excav., 900 lin.ft. curbing, $6,250; 942 ft. State Blvd., 24 ft. wide, 2,600 sq.yd. paving, 838 cu.yd. excav., 1,955 lin.ft. curbing, $12,950. F. M. Randall, city engr.

Ind., Ft. Wayne—City plans to grade, drain, curb and pave 2,289 ft. Tecumseh St., 28 ft. wide, involving 7,473 sq.yd. paving, 2,533 cu.yd. excav., 4,794 lin.ft. curbing, cost $35,700; 1,245 ft. Berry St., 10 ft. wide, 1,382 sq.yd. paving, 553 cu.yd. excav., $7,900; 2,559 ft. Lumbard St., 26 ft. wide, 7,753 sq.yd. paving, 3,000 cu.yd. excav., 4,977 lin.ft. curbing, $37,400. F. M. Randall, city engr.

Wis., Darlington—City having plans prepared grading and paving 100,000 sq.yd. Galena, Main, Ohio and Louisa Sts., 18 ft. wide. Alternate bids will be received on vitr. brick, wood block, asphalt and concrete. About $50,000. W. F. Reichardt, Watertown, archts.

Minnesota—Chicago & Northwestern R.R., 226 West Jackson Blvd., Chicago, plans to improve road and lay 26 mi. of 80 lb. steel rails in Sanborn and Cobden and from Sleepy Eye to Milford Siding. L. J. Putnam, Chicago, Ill., ch. engr.

Minn., St. Paul—Ramsey Co. receives bids about October paving 1 mi. Minnehaha St. from city limits to county line, 1 course concrete, 20 ft. wide. About $43,000. R. R. Godfrey, Court House, engr.

Missouri—State Highway Dept., Carthage, received no bids July 30, building 6.47 mi. Joplin-Carthage Rd., Federal Aid Project 84, also rein.-con. slab superstructure, 2 concrete piers and 2 plain abutments, Sta. 230+95 on above project. Noted July 15.

Missouri—State Highway Dept., Hermitage, received no bids July 28, building 8.1 mi. Preston-Collins Rd., Federal Aid Project 72. Noted July 15.

Tex., Angleton—Brazoria Co. soon receives bids grading, surfacing and draining 5.73 mi. Highway 36 in Rd. Dist. 24 16 ft. wide, involving 11 acres clearing and grubbing, 54,277 cu.yd. earth excav., etc. About $39,964. W. A. Randle, Freeport, engr. Noted July 29.

Tex., Center—Shelby Co., Rd. Dist. 1, voted $85,000 bonds to build section of Highway 8 and laterals; Rd. Dist. 2 voted $100,000 bonds to build roads branching out of Shelbyville. J. L. King, co. judge. T. H. Dillon, Center, co. engr.

Tex., Corpus Christi—Nueces Co. having plans prepared rebuilding 9,000 ft. causeway, Highway 9-12, over Nueces Bay, 20 ft. wide, concrete roadway, involving 3,000 lin.ft. wood trestle and 6,000 lin.ft. rock embankment. About $412,000. State will appropriate $100,000 toward cost, Federal Government, $200,000. H. A. Stevens, Corpus Christi, co. engr.

Tex., Linden—Cass Co. election Aug. 31, to vote on $1,500,000 bonds to build various roads. H. D. Nelson, co. judge. Hess & Skinner, Southwestern Life Bldg., Dallas, co. engrs.

Tex., McKinney—Collin Co. election Aug. 21, to vote on following bond issues: Blue Ridge Dist., $52,000, Copeville Dist., $24,000, Lavan Dist., $60,000. A. M. Wolford, co. judge. J. B. Crockett, McKinney, co. engr.

Tex., Stanton—Martin Co. voted $60,000 bonds to build 10 mi. Highway 1 from Midland Co. line to Howard Co. line. State Highway Dept. appropriated $60,000; total cost $120,000. J. H. Watson, co. judge.

Utah—State Highway Dept., Salt Lake City, plans to grade and surface 30.1 mi. road from Delta to Holden, 20 ft. wide, Millard Co., gravel. About $90,000. I. R. Browning, state highway engr.

Utah—State Highway Dept., Salt Lake City, plans to pave 4 mi. with 6 in. plain concrete, and grade, gravel surface and rewiden 8 mi. of state road between Marysvale and Junction, 18 ft. wide, Piute Co. About $196,000. I. F. Browning, state highway engr.

Utah, Ogden—City plans to build 59,517 lin.ft. of 5 ft. sidewalks, on various streets in Dist. 151. About $90,000. W. M. Tracy, city engr.

Ariz., Phoenix—Maricopa Co. plans election in fall to vote on $4,500,000 bonds to extend roads. This is in addition to $4,000,000 bonds recently voted.

Ont., Hamilton—City plans to pave 2 mi. York St. from James to Queen Sts. and King St. from James to Bay Sts., involving 25,000 sq.yd. wood block and asphalt on

Streets and Roads (Continued)

concrete base. About $111,000 and $41,000 respectively. E. R. Gray, city engr.

Ont., Niagara Falls—City plans to pave .75 mi. 5th, 6th and South Sts., 28-36 ft. wide, involving 9,000 sq.yd. asphalt or willite on concrete base. About $6,000, $15,000 and $22,000 respectively. D. T. Black, City Hall, engr.

Ont., Ottawa—Bd. Control soon receives bids paving Stewart St. from Waller to Chapel Sts., asphalt. About $33,000. A. T. Macallum, City Hall, engr.

Ont., Ottawa—City plans to pave 2,200 ft. various streets, 40 ft. wide, asphalt or bituminous. About $50,000. A. F. Macallum., City Hall, engr.

BIDS DESIRED

N. Y., New York—Until Aug. 16, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with sheet asphalt on concrete foundation, roadway of Madison Ave. from 91st to 94th Sts., with granite block, areas between parkways on Delancey St. at intersections of Norfolk and Suffolk Sts., Lexington Ave. from 125th to 130th Sts., East 125th St. from 1st to 3rd Aves., with wood block, areas included between parkways on Delancey St. at intersections of Norfolk and Suffolk Sts., Lexington Av. from 125th to 130th Sts., East 125th St. from 1st to 3rd Aves., with asphalt block, Madison Ave. from 91st to 94th St., regulating, regrading, flagging, reflagging and building retaining wall at intersection of Hillside and St. Nicholas Aves., adjacent to Dyckman St. subway station entrance.

N. Y., New York—Until Aug. 19, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with sheet asphalt on concrete foundation, roadway of West 54th St. from 7th to 9th Aves., West End Ave. from 69th to 72d Sts., West End Ave. from 76th to 91st Sts., with asphalt block, West 54th St. from 7th to 9th Aves., West End Ave. from 69th to 72nd Sts., West End Ave. from 76th to 91st Sts., with wood block, West 54th St. from 7th to 9th Aves., with granite block, Hudson St. from Chambers to Beach Sts.

N. Y., New York—Until Aug. 18, by H. Bruckner, pres. Bronx Boro., repairing sheet asphalt pavement in railroad area, when and where directed.

New Jersey—Until Aug. 23, by State Highway Comn., Broad St. Bank Bldg., Trenton, improving Sect. 8, State Highway from Leesville to Milton Aves., Rahway, Union Co, involving 15,810 sq.yd. concrete surface. R. Mullins, 790 Broad St., Newark, engr.

Md., Baltimore—Until Aug. 18, by Bd. Awards, c/o City Register, grading, curbing and paving Lauretta Ave. from Wheeler to Warwick Aves., Wheeler Ave. from Edmondson to Lauretta Aves., Warwick Ave. from Harlem Ave. to Lanvale St., Warwick Ave. from Edmondson Ave. to Franklin St., Wheeler Ave. from Harlem Ave. to Lanvale St., Lanvale St. from Warwick Ave. to Bentalou St., Oswego Ave. from Park Heights Ave. to Reisterstown Rd., involving 10,000 sq.yd. sheet asphalt, 3,000 lin.ft. armored concrete, 350 sq.yd. vitr. brick guttering, 1,500 lin.ft. combination curbing and guttering, and 3,800 cu.yd. grading.

W. Va., Elkins—Until Aug. 26 by T. Pritt, clk. Randolph Co., building 5.75 mi. Staunton-Parkersburg Rd., 16 ft. D paving; 2 mi. Seneca Pike Rd. and 4.5 mi. Dist. Rd., 9 ft. macadam. Separate bids for grading and draining. F. A. Parsons, co. engr.

W. Va., Glenville—Until Aug. 24, by N. E. Rymer, clk. Gilmer Co., grading 5 mi. Glenville-Weston Rd., 26 ft. wide. About $25,000. W. M. Moss, Cedarville, engr.

W. Va., Morgantown—Until Aug. 24, at Court House, Monongalia Co., grading 5,000 ft. road from Monon to Burchfield Run Rd., 16 ft. wide, involving 6,000 cu.yd. excav., 600 lin.ft. corrugated iron culvert pipe. J. M. Gregg, co. clk.

North Carolina—Until Aug. 25, by State Highway Comn., at div. office, Greensboro, grading and top soiling 5 mi. Federal Aid Project 125 A, Allegheny Co., 10.04 mi. Federal Aid Project 101 A, and 4.54 mi. Federal Aid Project 82, Davidson Co., also 20.53 mi. Federal Aid Project 98 A, Moore Co., all 16 ft. wide. W. S. Fallis, Raleigh, state highway engr.

N. C., Wilson—Until Sept. 1, by Mayor and Bd. Comrs., paving, extending sewers and watermains in various streets. T. A. Hinnant, clk., Gladding, Morrison & Mott, town engrs.; advertised in this issue.

S. C., St. George—Until Sept. 21, by Comrs. Dorchester Co., building various roads. About $200,000. Klutz & Smith, Concord, engrs. Noted July 8.

Tennessee—Until Aug. 20, by State Highway Dept., Nashville, grading and building drainage structures on 14.5 mi. road between McKenzie, Carroll Co. and Dresden, Weakley Co., involving 130,000 cu.yd. earth excav., 553 cu.yd. concrete, 46,700 lb. reinforcing steel, 1,094 lin.ft. 15-18 in. pipe, etc. W. P. Moore, ch. engr.

O., Cleveland—See "Miscellaneous."

Ind., Greenfield—Until Sept. 7, by Comrs. Hancock Co., building L. F. Richman, H. Gundrum and W. F. Klieman Rds., in Sugar Creek Twp., also J. Briney and L. Thomas Rds., Center Twp. C. Boone, co. engr.

Michigan—Until Aug. 24, by State Highway Dept., at dist. office, Port Huron, grading, draining and surfacing 2.528 mi. State Trunk Line Rd. 27-4, Sect. A, 18 ft. wide, St. Clair Co., involving 26,683 sq.yd. concrete, 7,531 cu.yd. earth excav., 306 lin.ft. pipe culverts and 294 cu.yd. concrete in culverts.

Mich., Kalamazoo—Until Aug. 18, by Bd. Rd. Comrs. Kalamazoo Co., grading and paving .382 mi. State Trunk Line Rd. 13-28, on Douglas Ave., 20 ft. wide, involving 4,487 sq.yd. vitr. brick on concrete base and 1,391 cu.yd. earth excav. State Highway Dept., Lansing, engrs.

Mich., Sault Ste. Marie—Until Aug. 17, by Bd. Rd. Comrs. Chippewa Co., grading, draining and surfacing 4.006 mi. State Trunk Line Rd. 48-2, Sect. B, 16 ft. wide, involving 11,346 cu.yd. earth excav., 37,599 sq.yd. gravel or waterbound macadam, 555 lin.ft. pipe culverts, 404.5 cu.yd. concrete in culverts, etc. State Highway Dept., Lansing, engrs.

Wisconsin—Until Aug. 18, by State Highway Comn., at div. office 6, 213 South Barstow St., Eau Claire, grading and paving 7.6 mi. Ellsworth-River Falls Rd., Federal Aid Project 122, Pierce Co., portions A and C, from Sta. 0 to 62 and 225 to 564, involving 36,427 cu.yd. earth, 580 cu.yd. channel change and 1,963 cu.yd. borrow excav., 417 cu.yd. Class "A" concrete, 66,791 sq.yd. 15 ft. macadam surfacing, 1,200 sq.yd. 18 ft. concrete surfacing, etc.; 4.5 mi. Medford-Cornell Rd., Federal Aid Project 125, Taylor Co., 18,263 cu.yd. earth, 696 cu.yd. ditching and 1,714 cu.yd. borrow excav., 170 cu.yd. Class "A," 147 cu.yd. Class "B" concrete (exclusive of bridge), 18 cu.yd. Class "A," 121.5 cu.yd. Class "B" and 53.9 cu.yd. Class "E" concrete in Morrow bridge, 87, 125 lb., structural steel, etc.; 7.75 mi. Hudson-Menomonie Rd., Federal Aid Project 15, St. Croix Co., 34,391 cu.yd. earth and 2,977 cu.yd. borrow excav., 283 cu.yd. Class "A" concrete in culverts, 233 cu.yd. Class "A" concrete in bridge, etc.

Minn., Aitkin—Until Sept. 7, by Aitkin Co., building 10 mi. Federal Aid Project 86, State Rd. 3, involving 6 acres clearing, 8 acres grubbing, 46,578 cu.yd. excav., 96,477 cu.yd. overhaul, 740 lin.ft. 12-36 in. sectional concrete culverts, 115 cu.yd. concrete in bridges, 6,162 lb. reinforcing steel, removing old bridges, etc. About $40,000. J. J. O'Hara, Aitkin, engr. Noted April 15.

Minn., Aitkin—Until Sept. 7, by Aitkin Co., grading 8.3 mi. State Aid Job 2,003, involving 38,153 cu.yd. excav., 208,304 cu. yd. overhaul, 424 lin.ft. 12-24 in. culverts, cost $33,000; 8 mi. Federal Aid Project 120, State Rd. 1, involving 31 acres clearing and grubbing, 64,199 cu.yd. excav., 38,477 cu.yd. overhaul, 1,134 lin.ft. 12-30 in. sectional cover culverts, 2,064 lb. reinforcing steel, 34 cu.yd. concrete, $32,000; 9 mi. Federal Aid Project 149, State Rd. 3, involving 10 acres clearing, 13 acres grubbing, 38,153 cu.yd. excav., 113,252 cu.yd. overhaul, 1,853 cu.yd. hand ditch, 487 lin.ft. 15-36 in. sectional concrete cover culverts, 163 cu.yd. concrete in culverts, 9,727 lb. reinforcing steel, $36,000. F. J. O'Hara, Atkin, engr.

Minn., St. Paul—Until Aug. 16, by c/o paving Arcade St. between Maryland and north city limits, asphaltic concrete ft. wide. O. Claussen, City Hall, engr.

Kan., Cottonwood Falls—Until Sept. 8, by Chase Co., paving 2.898 mi. New Santa Fe Trail, Project 47-A, 18 ft. wide. About $90,000. E. L. Hageman, Cottonwood Falls, engr. Noted Aug. 5.

Missouri—Until Aug. 21, by State Highway Dept., Palmyra, improving 10.26 mi. Hannibal-West Ely Div. of Pikes Peak Ocean to Ocean Highway, Federal Aid Project 62, Sect. A, Marion Co., involving 35,054 cu.yd. earth excav., 7,059 cu.yd. borrow, 3,500 cu.yd. overhaul, 13,244 sq.yd. Spec. "B" gravel pavement and 83,128 sq. yd. gravel surface course, cost $78,600; building culverts on Sect. B, 318 cu.yd. Class "B" concrete and 18,938 lb. steel reinforcement, $11,434; through girder superstructure and 2 abutments, Sta. 265+12, on above project, to have one 40 ft. span, 18 ft. roadway, 186.8 cu.yd. Class "B" concrete and 18,710 lb. steel reinforcement, $7,475; skew through girder superstructure and 2 abutments, Sta. 14+52, to have one 40 ft. span, 18 ft. roadway, 183.6 cu.yd. Class "B" concrete and 18,570 lb. steel reinforcement, $7,365; skew through girder superstructure and 2 abutments, Sta. 168+22, to have one 40 ft. span, 18 ft. roadway, 173.5 cu.yd. Class "B" concrete and 16,300 lb. steel reinforcement, $6,835.

Tex., Denton—Until Aug 17, by J. W. Erwin, city secy., improving North Locust St. from square to College St. and West Oak St. from square to city limits, involving 50,000 sq.yd. pavement. Alternate bids will be received on (a) vertical fibre brick on concrete base, (b) bituminous penetration macadam, (c) bitulithic, (d) single course concrete, (e) concrete curbs, (f) combined concrete curb and gutter, (g) storm sewers. Koch & Fowler, Sumpter Bldg., Dallas, engrs.

Tex., Palestine—Until Aug. 16, by O. C. Cutter, city secy., paving 100,000 sq.yd. various streets. Noted April 8.

Tex., San Antonio—Bexar Co. receiving bids building and surfacing 6.17 mi. State Highway 9, southwest from Atascosa Co. line on Pleasanton Rd. to graveled road, 16 ft. wide. About $128,715. C. E. Hoff, San Antonio, co. engr. Noted July 22.

Colorado—Until Aug. 20, by State Highway Dept., Denver, paving 2.761 mi. road between Colorado Springs and Broadmoor, 18-24 ft. wide, 4 ft. shoulders, Federal Aid Project 118, El Paso Co., involving 31,681 sq.yd. concrete, 9,762 cu.yd. earth excav., 158 cu.yd. Class "A" concrete and 1,900 sq.yd. crushed rock shoulders. About $126,725. J. E. Maloney, State Museum Bldg., Denver, engr.

Idaho—Until Aug. 19, by State Highway Dept., Boise, grading and graveling 9.75 mi. Teton Highway, Federal Aid Project 41, Teton Co., involving 50,695 cu.yd. earth and 100 cu.yd. rock excav., 533 cu.yd. concrete, 35,217 lb. metal reinforcement, 800 lin.ft. culvert pipe, one 60 ft. span bridge, cost $81,818; grading and paving 2.8 mi. Twin Buttes Highway, Federal Aid Project 43, Bonneville Co., bituminous, 11,135 cu.yd. earth and 1,579 cu.yd. rock excav., 26,287 sq.yd. concrete or bituminous concrete, 214 cu.yd. concrete, 276 lin.ft. concrete pipe culverts, 13,864 lb. metal reinforcement, $84,682. Alternate bids on concrete and corrugated iron. Noted March 11.

Idaho—Until Aug. 19, by State Highway Dept., Boise, grading and paving 2.7 mi. Yellowstone Park Highway, Federal Aid Project 46, involving 25,512 sq.yd. concrete or bituminous concrete, 12,357 cu.yd. earth excav., 187 cu.yd. concrete, 15,069 lb. metal reinforcement 448 lin.ft. concrete pipe culverts, cost $77,746, also 6.5 mi. Roosevelt Highway, Federal Aid Project 21, both Bonneville Co., 65,145 sq.yd. concrete or bituminous concrete 17,555 cu.yd. earth and 370 cu.yd. rock excav., 267 cu.yd. concrete, 19,996 lb. metal reinforcement, 192 lin.ft. corrugated iron culverts, $177,000; grading and gravel surfacing 16 mi. Idaho-Central Highway, Federal Aid Project 38, Butte Co., 55,685 cu.yd. earth and 760 cu.yd. rock excav., 127 cu.yd. concrete, 4,625 lb. metal reinforcement, 766 lin.ft. culvert pipe, $81,818; 20 mi. North and South Highway, Federal Aid Project 40, Washington Co., $177,228; 16 mi. Idaho Pacific Highway, Federal Aid Project 30, Power Co., 59,286 cu.yd. earth and 100 cu.yd. rock excav., 220 cu.yd. concrete, 8,426 lb. metal reinforcement, 918 lin.ft. corrugated iron pipe and

Streets and Roads (Continued)

one 26 ft. span I-Beam bridge, $145,390. Alternate bids on concrete and bituminous paving and corrugated iron. Noted June 10.

Ontario—Until Aug. 17, by W. A. McLean, c/o Dept. Pub. Highways, Parliaments Bldgs., Toronto, improving 6 mi. provincial highways, 20 ft. wide, involving excavating and grading in Ernestown Twp., (Contr. 129), 6,000 ft. macadam (Contr. 129) and 6,700 ft. macadam (Contr. 130), both in Thurlow Twp., 7,000 ft. macadam in Tynedwaga Twp. (Contr. 131). About $70,000. G. Hogarth, Parliaments Bldgs., Toronto, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., North Adams**—J. L. Temple, comr. Pub. Wks., let contract paving Beaver St., involving 5,000 sq.yd. concrete and 1,700 lin.ft. concrete curb and gutter, to Troy Paving Co., 418 Gay Bldg., Troy, N. Y. About $25,000.

★**Conn., Bridgeport**—City let contract paving with warrenite, Gilmore St. from Sherman to Hamilton Sts., Central Ave. from Stratford Ave. to Orange St., Maiden Lane (entire length), Union Ave. from Orange to Bay Sts., and Orange St. from Newfield to Union Aves., to Warren Bros. Co., 142 Berkeley St., Boston. About $100,000.

Conn., New Haven—City received bids paving (1) River St., (a) bituminous macadam, (b) national pavement, (c) sheet asphalt, (d) concrete, (2) Saltonstall Ave., (3) Poplar St. from R. D. Daley, 6 Church St., (1a) $29,834, (2) $29,250, (3) $41,460; C. W. Blakeslee & Sons, Inc., 58 Waverly St., (1a) $30,405, (1c) $48,168, (1d) $38,325, (2) $29,710, (3) $43,630; Connecticut Natl. Pavements, Inc., 185 Church St., (1) $31,060, (1b) $51,566, (1c) $49,607, (1d) $39,603; (2) $29,185, (3) $44,799. Noted July 29.

Conn., Stamford—Bd. Selectmen received only bid July 28, grading and paving Hope St., from F. Palmer, Sound View Ave., $197,000. Noted July 22.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract regulating and repaving Atlantic Ave., to Leonard Paving Co., 230 Bway., New York City, $228,509; Bergen St., to Brooklyn Alcatraz Paving Co., 407 Hamburg Ave., $21,915; West 5th, East 10th, Junius, 81st and Newport Sts., to Uvalde Asphalt Paving Co., 1 Bway., New York City, $10,962, $16,630, $9,794, $13,897 and $9,515 respectively. Noted July 22.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract regulating and repaving Atlantic Ave., to Consolidated Asphalt Paving Co., 52 9th St., $262,599; 19th Ave., to Uvalde Asphalt Paving Co., 1 Bway., New York City, $12,803; resurfacing Kings Highway, to Ward & Tully, 2047 West 11th St., New York City, $73,014; building sewer in Ocean Parkway and East 7th St., to Millvale Constr. Co., 1455 76th St., $4,217 and $3,418 respectively. Noted July 29.

★**N. Y., New York**—H. Bruckner, pres. Bronx Boro., let contracts paving East 133rd St., to C. Helbrock, 633 Wales Ave., $11,480; Whitlock Ave. and Garfield St., to Davney Asphalt Paving Co., Inc., 438 East 91st St. $29,555 and $21,960 respectively; regulating, grading, setting curb, etc., Harlem River Terrace and building sewer in Fox St., to M. Delbalso, 1481 Hoe Ave., $2,188 and $7,461 respectively. Noted July 29.

★**N. Y., New York**—Park Bd. let contract furnishing labor and material repaving with heavy sheet asphalt, center roadway of Bronx and Pelham Parkways, to J. L. Brusstar, Harlem River and 150th St., $7,680. Noted July 22.

N. J., Flemington—Hunterdon Co. received bids building .6 mi. concrete road near Flemington Jct., 20 ft. wide, from Smith Bros. & Co., Hackettstown, $29,651; Uffhiel Constr. Co., Peetzburg, $31,154. Noted July 22.

★**Pa., Parnassus**—Boro. let contract improving Center Ave. from bridge across Little Puckety Creek to Riverview Drive, to Anderson Constr. Co., New Kensington. About $42,000. Noted June 24.

★**D. C., Wash.**—Dist. Comrs., 509 Dist. Bldg., let contract renewing, resurfacing and repairing asphalt and coal tar pavements of various streets, to Cranford Paving Co., 2620 E St., N. W., $158,200.

★**D. C., Wash.**—Dist. Comrs., 509 Dist. Bldg., let contract paving various streets, with sheet asphalt, to Cranford Paving Co., 2620 E St., N. W., $154,000.

D. C., Wash.—Dist. Comrs., 509 Dist. Bldg., received lowest 3 bids, grading (1) 5th St., S. E., (2) Haller Pl., (3) 3rd St., N. W., (4) Piney Branch Rd., (5) 2nd St., N. W., (6) Princeton Pl., (7) Van Buren St., from W. F. Brenizer Co., 101 New York Ave., N. E., (1) $.60 per cu.yd., (2) $1, (3) $1, (4) $.75, (5) $.65, (6) $.83, (7) $.55; G. Hyman, West Virginia Ave. and Morse St., N. E., (1) $.63 per cu.yd., (2) $1.50, (3) $.95, (4) $.59, (5) $.85, (6) $.57, (7) $.52; G. H. Mullin Co., 3303 11th St., N. W., (3) $1.24 per cu.yd., (4) $.63, (5) $.63, (6) $.63, (7) $.74.

★**W. Va., Moundsville**—Marshall Co. let contract grading 3 mi. Cameron-Popular Springs Rd., to N. M. Leigh, Mannington, $48,304. Noted July 1.

★**N. C., Belmont**—City let contract hard surfacing Main St., asphalt on rock foundation, to Simmons Constr. Co., Charlotte. About $50,000.

O., Columbus—City received bids Aug. 4, paving following streets:

Alley west of Delaware Ave. from 1st to 2nd Aves., 562 ft. long, 20 ft. wide, grading, draining, curbing and paving with brick, from B. F. Patterson, Columbus, $6,759, concrete, $5,058; R. J. Deinst, Columbus, $6,992, concrete, $5,140.

Alley north of Frambes Ave. from Waldeck to Indianola Aves., 627 ft. long, 20 ft. wide, grading, draining, curbing and paving with brick, B. F. Patterson, Columbus, $7,525, concrete, $5,525; R. J. Deinst, Columbus, $7,780, concrete, $5,695.

Ludlow St. from Gay to Chestnut Sts., 1,388 ft. long, 33 ft. wide, grading, draining, curbing and paving with brick, R. J. Deinst, Columbus, $25,062.

Pearl St. from Chittenden to 13th Aves., 707 ft. long, 20 ft. wide, grading, draining, curbing and paving with brick, B. F. Patterson, Columbus, $7,833, concrete, $5,756; R. J. Deinst, Columbus, $8,142, concrete, $5,959.

Alley west of Ohio Ave. from Mound to Fulton Sts., 390 ft. long, 16 ft. wide, grading, draining and paving with brick, R. J. Deinst, Columbus, $4,786, concrete, $3,670; Federal Paving Co., Hartman Bldg., Columbus, concrete, $3,600.

Alley north of Vermont Pl. between Michigan Ave. and Perry St., 425 ft. long, 16 ft. wide, grading, draining, and paving with brick, B. F. Patterson, Columbus, $4,232, concrete, $3,145; R. J. Deinst, Columbus, $4,341, concrete, $3,214.

Alley west of 17th St. from Bryden Rd. to Rich St., 294 ft. long, 15 ft. wide, grading, draining and paving with brick, R. J. Deinst, Columbus $3,152, concrete, $2,377; Federal Paving Co., Hartman Bldg., Columbus, concrete, $2,276. Noted July 22.

★**Michigan—State** Highway Dept., Lansing, let contract grading, draining and surfacing Federal Aid Rd. 26, Sect. A, Antrim Co., involving 11,006 cu.yd. earth excav., 15,091 sq.yd. gravel, 138 lin.ft. pipe culverts, 107 cu.yd. concrete in culverts, etc., to C. Bye, 442 Webster St., Traverse City, $26,385.

★**Mich., Detroit**—City let contracts to Detroit Asphalt Paving Co., 30 McGraw Bldg., furnishing labor and material paving Coplin Ave., cost, $51,562 Concord Ave., $19,620, Heck Pl., $14,789, Lycaste Ave., $29,517, Lafayette Ave., $37,515, Marlborough Ave., $14,399, Milford Ave., $55,933, Newport Ave., $33,133, Springwells Ave., $29,042, Charlevoix Ave., $32,119; to Cleveland Trinidad Paving Co., 2940 Woodward Ave., Philadelphia Ave., $38,436. Noted July 22.

★**Mich., Hillsdale**—Hillsdale Co. let contract improving 3.75 mi. road in Cambria and Reading Twns., to Bishopp & Rowlson, Hillsdale, $47,830.

★**Wisconsin**—State Highway Dept., at div. office 5, Court House, La Crosse, let contract improving 7.19 mi. Whitehall-Ettrick Rd., Federal Aid Project 120, Trempealeau Co., to Mason & Metzgar, Blair, $48,639. Noted July 22.

★**Wis., Mayville**—City let contract grading, paving and building combined curbs and gutters on 2.7 mi. Main, Bridge and School Sts., 18 ft. wide, to J. Rasmussen & Sons, 7th St., Oshkosh, $88,100. Noted July 15.

★**Minn., Benson**—Swift Co. will grade and gravel 5 mi. road from Appleton to south county line, 24 ft. wide, State Rd. 7, Job 1901, cost $30,000; 5 mi. road from here to Clontarf, 24 ft. wide, State Rd. 1, Job 2004, $30,000; grade 5 mi. road north of Ida Graff, 24 ft. wide, State Rd. 10, Job 2003, $25,000. Work will be done by day labor. Noted Jan. 8 and 15.

★**Minn., St. Paul**—City let contract paving Fairfield Ave. between Robert and State Sts., State St. between Fillmore Ave. and St. Lawrence St., Indiana Ave. between Robert and State Sts., asphaltic concrete, 30 ft. wide, to White Constr. Co., 203 Flat Iron Bldg. About $73,000. Noted Aug. 5.

★**Neb., Osceola**—City let contract paving various streets, asphalt, to L. L. Beye, Eldorado, Kan., $152,545.

★**Missouri**—State Highway Dept., Albany, let contract building 8.86 mi. Jefferson Highway, Federal Aid Project 54, Sect. A, to Land Grading Co., Ballinger Bldg., St. Joseph, $47,942. Noted Aug. 5.

★**Tex., Bastrop**—Bastrop Co. will grade, surface and drain 8.814 mi. Highway 20 through Rd. Dist. 3, 14 ft. wide. About $78,939, including 10% for engineering and contingencies. Work involves 5.07 acres clearing and grubbing, 25,354 cu.yd. earth borrow, 13,427 cu.yd. earth excav., 319.07 cu.yd. Class "A" concrete, 16,143 cu.yd. gravel and 26,985 lb. plain steel bars. Work will be done by day labor. Noted July 22.

★**Tex., Brownsville**—Cameron Co. let contract paving various streets, involving 33,000 sq.yd. 2 in. bitulithic on 6 in. gravel macadam, to Southwest Bitulithic Co., c/o F. E. Rightor, mgr., Scarborough Bldg., Austin. About $175,000.

★**Tex., Center**—Shelby Co. let contract grading, gravel surfacing and draining 31.9 mi. Highway 8 from San Augustine Co. to Panola Co. line, 16 ft. wide, to Smith Bros., Crockett, $514,038; including 10% for engineering and contingencies and material furnished by county. Work involves 125.5 acres clearing, 80.7 acres grubbing, 82,022 cu.yd. borrow, 125,131 cu.yd. earth, 917 cu.yd. structural, 50 cu.yd. solid rock and 100 cu.yd. loose rock excav., 172.9 cu.yd. Class "A" and 71.86 cu.yd. Class "C" concrete, 44,389 cu.yd. gravel, f.o.b. cars 15,814 cu.yd. gravel, local pits, 254,696 ft. b.m. bridge lumber (superstructure), 113,225 ft. b.m. bridge lumber (substructure), 367,921 ft. b.m. creosoted bridge lumber, 15,417 lb. reinforcing, etc.

★**Tex., Dallas**—McNeny & McNeny, Praetorian Bldg., let contract paving 2 mi. streets in Northern Hills Addition, 50 ft. wide, asphalt, concrete gutters and curbs, to Uvalde Rock Asphalt Co., Dallas. About $105,000.

Tex., Gonzales—J. C. Romberg, judge Gonzales Co. received bids July 26, surfacing 10.03 mi. Highway 3, 16 ft. wide, involveing 20,944 cu.yd. gravel, from D. Larroe, Palestine, $66,871; Bd. Comrs. Gonzales Co., Gonzales, $75,697. Noted July 15.

★**Tex. Henderson**—Rusk Co. let contract grading surfacing and draining 45 mi. various roads, 18 and 20 ft. wide, to Tippet Constr. Co., Mineral Wells. About $350,000.

★**Tex., San Angelo**—Tom Green Co. rejected bids June 30, and will grade and pave 10 mi. State Highway 9 and 9A, 18 ft. wide. About $255,911. Work will be done by day labor. Noted July 22.

Tex., San Augustine—San Augustine Co. received bids grading, surfacing and draining 8.89 mi. Highway 8, Sect. B, State Aid Project 75, 16 ft. wide, from H. F. Bland, Center, $64,720; Smith Bros., Crockett, $68,074. Work involves 54 acres clearing and grubbing, 80.3 cu.yd. Class "B" concrete, 7,605 cu.yd. sand clay, 690 lin.ft. c.i. pipe, etc.

Idaho—State Highway Dept., Boise, received bids grading and graveling (a) 3.83 mi. Idaho-Pacific Highway, 16 ft. wide, Federal Aid Project 35, Caribou Co., (b) 18 mi. North and South Highway, 16 ft. wide, Federal Aid Project 20, Boundary Co.; grading and surfacing with crushed rock, (c) 16.7 mi. North and South Highway, 16 ft. wide, Federal Aid Project 19, Bonner Co.; grading (d) 4 mi. Lewis and Clark Highway, 20 ft. wide, Federal Aid Project

Streets and Roads (Continued)

33, Nez Perce Co., from S. A. Kapus, Box 111, Idaho Falls, (a) $58,407; F. Coolidge, Laramie, Wyo., (a) $59,598; Reed & Davies (a) $60,616; Genl. Constr. Co., Peyton Bldg., Spokane, Wash., (b) $179,610, (c) $227,846; Warren Constr. Co., Journal Bldg., Portland, Ore., (b) $219,020, (c) $278,998; Triangle Constr. Co., Ritzville, Wash., (b) $207,598; Highway Constr. Co., Colfax, Wash., (c) $214,365; Hauser Constr. Co., Portland, Ore., (d) $79,999; Standard Asphalt & Paving Co., N 517 Lincoln St., Spokane, Wash., (d) $97,731; Rich, Markus & Crowe, Missoula, Mont., (d) $99,028.

★**Idaho**—State Highway Dept., Boise, let contracts grading and graveling 9 mi. Idaho-Utah Highway, Federal Aid Project 17, Bannock Co., involving 46,936 cu.yd. earth and 961 cu.yd. rock excav., also 6.4 mi. Malad Valley Highway between Downey and Oneida Co. line, 34,450 cu.yd. earth and 2,020 cu.yd. rock excav., to H. E. Cornell, Boise, $80,503 and $36,839 respectively; 17 mi. Idaho-Pacific Highway, Federal Aid Project 27, Payette Co., 63,975 cu.yd. earth and 100 cu.yd. rock excav., 1,370 cu.yd. concrete, one 30 ft. I-beam bridge, to M. O'Reilly, Portland, Ore., $173,029; 11.75 mi. North and South Highway, Federal Aid Project 29, Kootenai Co., to J. H. Nordquist, 117 King St., Wallace, $179,996; 21.8 mi. Idaho-Utah Highway, Federal Aid Project 36, Franklin Co., to Smith, Green & Wilson, Preston, $160,000; 4.03 mi. Grace-Preston Highway between Grace and Niter Sta., Bannock Co., to G. T. Allsop, Grace, $16,364; 10.9 mi. North and South Highway, Federal Aid Project 31, Benewah Co., to Genl. Constr. Co., Northwestern Bank Bldg., Portland, Ore., $179,912; grading and paving 7 mi. Idaho-Pacific Highway, Federal Aid Project 24, Twin Falls Co., 24,181 cu.yd. earth, 92,865 sq.yd. concrete, 916 lin.ft. concrete pipe culvert, to F. E. Phelps, Brigham City, Utah, $254,202; 12 mi. Idaho-Pacific Highway, Federal Aid Project 23, Twin Falls Co., bitulithic, 138,000 sq.yd. bituminous concrete, to Warren Constr. Co., Journal Bldg., Portland, Ore., $603,900; grading and surfacing 4.27 mi. North and South Highway, Federal Aid Project 39, Lewis Co., crushed rock, 27,117 cu.yd. earth and 2,480 cu.yd. rock excav., 561 lin.ft. culvert pipe, to Triangle Constr. Co., Colfax, Wash., $68,229; grading [illegible] Warm River Dugway, Yellowstone Park Highway, 15,152 cu.yd. earth and 4,500 cu.yd. rock excav., 242 cu.yd. concrete, to Tempest & Harris, Rexburg, $38,537. Noted June 10 and 24.

★**Wash., Endicott**—City will grade and pave 3 mi. Main St. et al. Cost between $50,000 and $60,000. Work will be done by day labor.

★**Wash., South Bend**—Pacific Co. let contract grading and grubbing 1.2 mi. Permanent Highway 31-E, to McLean & Williams, Astoria, Ore., $29,065.

★**Cal., Marysville**—Yuba Co. let contract building 10 mi. roads through Dist. 10, to Warren Constr. Co., Journal Bldg., Portland, Ore.

★**Ont., Chapleau**—City let contract building 3 mi. sidewalks, involving 70,000 sq.ft. granolithic concrete, to A. Cherico, North Bay. About $35,000. Noted July 29.

Railways

PROPOSED WORK

West Virginia—See "Miscellaneous under Logan."

Excavation and Dredging

PROPOSED WORK

Wis., Chilton—Drainage—A. Sebenich Drainage Co. had plans prepared for excavating and laying 8-12 in. tile drain in 60 acres in Calumet and Sheboygan Counties. About $25,000. J. Donohue, North 8th St., Sheboygan, engr. Noted June 17.

Ia., Ft. Madison—Drainage—Lee Co. received no bids July 27, improving 5 mi. Green Bay Levee D. D., involving 100,000 cu.yd. excav. About $30,000. Work will probably be readvertised. E. T. Perkins Eng. Co., 1211 1st Natl. Bank Bldg., Chicago, engrs. Noted July 15.

Minn., Cedar—Ditch—Until Aug. 24, by A. A. Caswell, aud. Anoka Co., Anoka, repairing Ditch 28, 3 mi. east of here, involving 79,373 cu.yd. excav. (dry land dredging). About $39,000.

Minn., Olivia—Ditch—Until Aug. 16, by A. O. Schmidt, aud. Renville Co., improving Ditch 84, involving 23,000 ft. 5-15 in. tile, 13 intakes and bulkhead.

Mont., Helena—Irrigation—Lewis and Clark Co. will have surveys made for irrigating 6,000,000 acres.

Col., Craig—Ditches, etc.—J. M. Jones, Racine, Wis., receives bids about Aug. 23, building dam, ditches and laterals to irrigate 5,700 acres. About $100,000. J. F. Engel Craig, engr.

Tex., Clarksville—Levee—Levee Dist. 1, Red River Co., voted $100,000 bonds to build levee to enlarge present project and reclaim several thousand acres.

Ariz., Winslow—Irrigation-Chamber of Commerce plans to build diversion dam, 2 storage reservoirs and 2 main canals, to irrigate from 100,000 to 150,000 acres. Beckman & Linden, 593 Market St., San Francisco, engrs.

BIDS DESIRED

Minn., Madison—Ditch—Until Aug. 16, by H. O. Thorson, aud. Lac Qui Parle Co., building Ditch 53, involving 50,000 ft. 6-28 in. tile. About $27,364.

Minn., St. Peter—Ditch—Until Aug. 19, by W. H. Holz, aud. Nicollet Co., building Judicial Ditch 6 Nicollet and Sibley Counties, involving [illegible] ft. 7-30 in. tile. About $29,207.

Minn., St. Peter—Drainage—Until Aug. 19, by W. H. Holz, aud. Nicollet Co., building Drainage System 69 involving 17,700 ft. open ditch, 218,020 cu.yd. excav., 230,000 lin.ft. 8-44 in. tile, 14 concrete headwalls, 286 ft. 9-30 in. corrugated metal culvert pipe, etc. About $285,075. R. H. Allison, Mankato, engr. Noted Jan. 29.

N. B., St. John—Dredging—Until Aug. 25, by Dept. Pub. Wks., Ottawa, dredging 21,000 cu.yd. sand, silt, gravel and clay. About $26,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ont., Welland**—Canal—Dominion Government, Ottawa, let contract for excavating, dredging, building canal locks and concrete work on Sect. 1 Welland Ship Canal, to Dominion Dredging Co., Union Bank Bldg., St. Catherines; Sect. 2, to Baldry, Yerbough & Hutchinson, 80 St. Francis Ave., Montreal, Que. Sect. 3, to Doheny, Quinlan & Robinson, Thorold; Sect. 5, to Canadian Dredging Co., Port Robinson. About $2,000,000. Noted April 1.

Industrial Works

PROPOSED WORK

Vt., Brandon—State Health Comn., Montpelier, having plans prepared by F. L. Austin, Archt., College St., Burlington, for 1 story, brick and concrete central heating plant, at State Hospital, here. A. S. Kellogg, 53 State St., Boston, engr.

Mass., Somerset—N. S. Chase, engr., Borden Blk., Fall River, soon lets contract building 1 story, 70 x 160 ft., brick and steel foundry, rein.-con. flooring, concrete foundation. About $50,000. Owner's name withheld.

Mass., Wakefield—Heywood Bros. & Wakefield Co., Gardner, soon lets contract constructing 6 dry kiln buildings and addition to Bldg. 3, brick. Lee & Hewitt, 1123 Bway., New York City, archts.

Mass., West Everett (Everett P. O.)—Boston Fibre Co., 184 Sumner St., Boston, plans to build concrete storehouse on Tremont St. About $100,000. Private plans.

Pa., McKeesport—See "Buildings."

Pa., Williamsport—Dewart Milk Products Co., Inc., Dewart, plans to build 3 story, 110 x 170 ft., brick, tile and concrete plant on Erie and 3d Aves., here. About $100,000. C. F. Sheffer, Dewart, dir.

Md., Annapolis—Pub. Utilities Co plans to build addition to gas plant to double city supply. About $200,000.

Md., Baltimore—Boyden Steel Co., Keyser Bldg., recently incorporated, $100,000,000 capital stock, plans to build plant, here.

Md., Baltimore—Chevrolet Motor Co. of Maryland, 116 Richmond St., plans to build 4 story, 50 x 150 ft. distributing plant on Adams Ave., 22nd and Bartlett Sts.

Md., Baltimore—Consolidated Gas, Electric Light & Power Co., Lexington Bldg., having plans prepared by A. S. Loizeaux, company engr., for two 1 story, 48 x 52 x 200 ft. and 29 x 108 ft. additions to substation, concrete, steel and brick, concrete foundations, on Race and Barney Sts.

Md., Baltimore—Whitaker Paper Co., [illegible] Guilford Ave., soon lets contract building 8 story, 100 x 186 ft., rein.-con., and steel warehouse, rein.-con. flooring, concrete foundation, on Guilford, Saratoga and Davis Sts. About $1,000,000. Haskell & Barnes, 301 North Charles St., archts. and engrs.

Md., Crisfield—Potomac Poultry Food Co., 802 Keyser Bldg., Baltimore, having plans prepared for steel plant, concrete foundation, here, to include 1 story, 125 x 144 ft. rein.-con. silo, grain runway, office building, timber wharf, bulkhead and piling. About $150,000. H. F. Doeleman, 507 North Charles St., Baltimore, consult. engr.

Md., Hagerstown—Howard Hosiery Mill, South Jonathan St., having plans prepared by F. C. Mack, archt., Negley Bldg., for 1 story, 40 x 104 ft. mill.

O., Akron—United Machine & Mfg. Co., Columbus, had preliminary plans prepared for 100 x 200 ft. foundry. About $100,000. L. E. Griffith, pres.

O., Cincinnati—Hill & Griffith, 1262 State Ave., plan to build 1 and 4 story, 150 x 300 ft., brick and steel addition to plant, brick foundation. About $100,000. B. Baldwin, 2d Natl. Bank, engr.

O., Cincinnati—U. S. Playing Card Co., Norwood, plans to build 4 story, 120 x 360 ft. factory, also 2 story, 80 x 355 ft. restaurant, rein.-con., brick and steel, rein.-con. flooring. A. Hannaford & Son, Hulbert Blk., archts.

O., Cleveland—Cleveland Can Co., 1836 Euclid Ave., plans to build 3 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation. About $200,000. J. A. Brown, mgr. Architect not selected.

O., Cleveland—J. Feigenbaum, 541 Society for Savings Bldg., plans to build 2 story, 50 x 150 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on East 9th St. and Lakeside Ave. About $100,000. Architect not selected.

O., Cleveland—Standard Oil Co., 26 Bway., New York City, having plans prepared for rein.-con., steel and brick pumping plant, rein.-con. flooring, concrete foundation. About $1,000,000. Private plans.

O., Columbus—Federal Chemical Co., 1200 Bonham Ave., plans to build 90 x 132 ft. addition to main sheds, also 90 x 100 ft. addition to warehouse.

O., Columbus—Jeffrey Mfg. Co., North 4th St., having plans prepared for 2 story, concrete and steel warehouse. About $100,000. J. Dierdorff, c/o owner, engr.

O., Urbana—United Paper Board Co., having plans prepared rebuilding and remodeling present plant. About $500,000. Private plans.

Ind., Indianapolis—Westinghouse Lamp Co., 165 Bway., New York City, plans to build new brick and concrete plant here. D. Robinson, 125 East 46th St., New York City, archt.

Mich., Dearborn—Malcolmson, Higginbotham & Palmer, archts., 405 Moffat Bldg., Detroit, open bids about Aug. 19, building 1 story, 46 x 87 ft., rein.-con., brick and steel power house, here, rein.-con. flooring, concrete foundation, for Bd. Educ.

Mich., Detroit—A. E. Harley, archt., 435 Woodward Ave., opens bids about Aug. 20, building 4 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Dalzelle St., for Blodgett Eng. & Tool Co., Kerr Bldg. About $50,000. Noted March 25.

Wis., Cudahy—Worthington Pump & Mchy. Co. soon lets contract building 3 story, 60 x 170 ft. pattern shop, brick and timber, rein.-con. flooring, concrete foundation. Private plans.

Wis., Lake Mills—Piawitz Motor Co. plans to build 4 story, 60 x 150 ft., brick, rein.-con. and steel garage, rein.-con. flooring, brick foundation, on Main and Madison Sts. Architect not selected.

Wis., Manitowoc—Clark Oil Co., 10th and York Sts., having plans prepared by Juul & Smith, archts., Imig Bldg., Sheboygan, for 2 story, 60 x 110 ft., brick, rein.-con. and steel garage and station, rein.-con. flooring, brick foundation. T. Clark, mgr.

Wis., Milwaukee—H. N. Davis Co., 129 Michigan St., soon lets contract building 3 story, 60 x 110 ft. factory, concrete blocks and mill construction, on 32nd St. Private plans.

Wis., Milwaukee—Ford Motor Co., Boulevard and Woodward Ave., Detroit, plans to build 2 story, 60 x 150 ft. addition to plant, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Kenilworth St. Architect not selected.

Industrial Works (Continued)

Wis., Milwaukee—C. Hennecke Co., 1353 North Pierce St., plans to build 1 story steel fabricating plant, brick and steel, concrete flooring and foundation, on Port Washington Rd. Private plans.

Wis., Milwaukee—S. F. Kadow, archt., 97 Wisconsin St., soon receives bids building 1 story, 30 x 145 ft. addition to foundry, brick and steel, concrete foundation, for A. E. Martin Fdry. & Machine Co., 705 Park St.

Wis., Plymouth—Service Motor Co. plans to build 4 story, 60 x 200 ft., rein.-con., brick and steel garage, rein.-con. flooring, brick foundation. About $100,000. Architect not selected.

Wis., Sheboygan—Columbia Rubber Mills, c/o L. Hofmeister, 176 16th St., Milwaukee, having plans prepared by Juul & Smth, archts., Imig Bldg., for 2 story, 70 x 200 ft., brick, rein.-con. and steel factory, rein.-con. flooring, brick foundation, also 30 x 40 ft. boiler house, on Lyman Addition. Cost between $50,000 and $75,000. E. Juul, 805 North 8th St., engr.

Wis., West Milwaukee (Milwaukee P. O.)—Chicago, Milwaukee & St. Paul Ry., Constr. Dept., Union Depot, having plans prepared for 1 story, 100 x 500 ft., brick and steel shop, concrete flooring and foundation. Work will probably be done by day labor.

Minn., Minneapolis—Roach-Tisdale & Co., 528 North 3rd St., having plans prepared by Butler Bros. Bldg. Co., 1001 Exch. Bank Bldg., St. Paul, for 5 story, 50 x 150 ft., rein-con. brick and steel factory, on 5th Ave. and 3rd St. About $200,000. E. E. Tisdale, secy.

Neb., Omaha—Baker Ice Machine Co., 19th and Nicholas Sts., plans to build factory. About $200,000. J. L. Baker, pres.

S. D., Sioux Falls—City plans to improve electric light, water and sewerage systems. About $175,000 for former.

Mont., Forsyth—J. E. Edwards, and others, plan to build sugar beet factory. About $1,500,000. Architect not selected.

Mo., Kansas City—Feeders Supply Co., 532 Live Stock Exch. Bldg., purchased 2 acre site on Duncan Ave. near Nicholson Ave., and plans to build mill. About $150,000.

Tex., El Paso—Atlas Brick Co., Dallas and Cotton Sts., plans to build lime-hydrating plant, cost $60,000, also construct office and warehouse, total cost $100,000. C. L. North, pres.

Tex., Memphis—Texas Gas & Electric Co. plans to rebuild plant destroyed by fire. Loss, $75,000.

Tex., San Antonio—H. D. Kellar, Coldwater, Mich., plans to build cannery and syrup mill to include electric light plant and ice factory, here.

Utah, Provo—Utah Coal Rd. and Salt Lake Route soon receives bids building 1 to 3 story, 75 x 240 ft., rein.-con. railroad shops. About $200,000. F. Strong, Provo, div. engr. and archt.

Ont., Kapukasing—Spruce Falls Co., Toronto, soon receives bids building pulp and paper mill, here. About $800,000.

BIDS DESIRED

Pa., Spring City—Until Aug. 24, by Supt. Pub. Grounds & Bldgs., Capitol Bldg., Harrisburg, constructing 1 story, 40 x 180 ft. cow barn, hollow tile and brick, here, for State Institute for Feeble Minded, Easton. About $200,000. P. H. Johnson, 1713 Sansom St., Phila., archt. and engr.

Mich., Detroit—Until Aug. 20, by Baxter, O'Dell & Halpin, archts., 1024 Hammond Bldg., constructing 2 story, 45 x 96 ft. jewelry factory, brick and mill construction, brick foundation, on Field and Forest Sts., for Weyhing Bros., 237 Woodward Ave. About $100,000.

Ill., Chicago—A. Himmelblau, archt., 179 West Washington St., receiving bids building 1 story, 100 x 175 ft., brick garage rein.-con. flooring, concrete foundation, on Madison and Keeler Aves., for Independent State Garage, Kedzie Ave. and Grenshaw St. About $65,000.

Wis., Neillsville—Duplex Storage Battery Co., 537 Edison St., Milwaukee, receiving bids building 1 story, 100 x 300 ft., brick and timber factory, concrete flooring and foundation. Private plans.

Mo., St. Louis—C. F. May, archt., Laclede Bldg., receiving bids building 4 story, 83 x 104 ft., brick warehouse and machine shop, on North Bway., for Schlueter Mfg. Co., Bway. and John Ave. About $100,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., East Cambridge** (Cambridge P. O.)—Vacuum Oil Co., 49 Federal St., Boston, let contract building 2 story, 75 x 115 ft., rein.-con. and brick, warehouse, rein.-con. flooring, concrete foundation, on 6th and Potter Sts., to Turner Constr. Co., 178 Tremont St., Boston. About $80,000.

★**Mass., East Everett** (Boston P. O.)—Carpenter-Morton Co., 77 Sudbury St., Boston, let contract building 4 story, 50 x 60 ft. addition to paint factory, brick and steel, concrete foundation, on East Summer St., to J. E. Locatelli & Co., Inc., 46 Cornhill St., Boston. About $75,000.

★**Mass., New Bedford**—Beacon Mfg. Co., Purchase St., let contract building 4 story, 100 x 122 ft., brick and steel storehouse concrete foundation, to J. W. Bishop Co., 417 Butler Exch. Bldg., Providence, R. I. About $200,000. Noted July 22.

★**Mass., Worcester**—Norton Co., Barbers Crossing, let contract constructing 4 story, 55 x 125 ft., brick and steel storehouse, also 1 story, 40 x 140 ft., concrete and timber oil storage building, both rein.-con. flooring, concrete foundation on New Bond St., to E. J. Cross Co., 82 Foster St. About $200,000.

★**Mass., Worcester**—H. W. Trulson, 35 Berkmans St., will build 2 story, 90 x 116 ft., concrete and steel garage, rein.-con. flooring, concrete foundation, on Pleasant and Fruit Sts. About $150,000. Work will be done by day labor. Noted Aug. 5.

★**R. I., Providence**—R. T. Slade, 547 Elmwood Ave., let contract building 1 story, 62 x 102 ft., rein.-con. and brick garage and service station, rein.-con. flooring, concrete foundation, on Elmwood Ave., to E. H. Bigney, 87 Weybosset St. About $50,000.

★**Conn., Hartford**—Frasse Steel Corp., 45 Boulevard, let contract altering brick and steel plant, to J. H. Grozier Co., 721 Main St. About $75,000.

★**N. Y., Brooklyn**—Brownsville Assets Corp., c/o P. Steigman, archt. and engr., 690 Bway., will build 1 story, 100 x 160 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 150 Crescent St. About $50,000. Work will be done by day labor.

★**N. Y., Brooklyn**—J. Schkelnick, 37 Van Buren St., will build 1 story, 100 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Moore St. About $60,000. Work will be done by day labor.

★**N. Y., New York**—Miller, 935 Intervale Ave., will build 1 story, 100 x 135 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Park Ave. and 184th St. About $60,000. Work will be done by day labor.

★**N. Y., New York**—S. & Z. Bldg. Co. (Caswell Motor Co.) c/o J. M. Felson, archt. and engr. 1133 Bway., will build 3 story, concrete, brick and steel garage, rein-con. flooring, concrete foundation, on Manhattan Ave. and 130th St. About $120,000. Work will be done by day labor.

N. Y., New York—S. Varschleisser, 215 East 67th St., will alter brick, rein.-con. and steel garage, on East 67th St. About $50,000. Work will be done by day labor.

★**Pa., Phila.**—Hurlburt Oil & Grease Co., Inc., Trenton and Erie Sts., let contract repairing and altering 2 story, 45 x 90 ft., concrete and brick factory, to Wark & Co., 1737 Filbert St.

★**Va., Richmond**—Frost & Beveredge, 1318 East Cary St., let contract building 2 story, 28 x 120 x 140 ft., brick garage, rock foundation, on Lodge and Byrd Sts., to E. L. Bass Bros., 708 Bainbridge St. About $55,000.

★**Ga., Atlanta**—Red Diamond Motor Corp. let contract building rein.-con. and steel assembling plant, to H. D. Best, 175 5th Ave., New York City. About $300,000.

★**O., Cincinnati**—Bourne Fuller Co., Front and Smith Sts., let contract building 1 story, 132 x 211 ft., rein.-con. and steel addition to warehouse, to Austin Co., 16112 Euclid Ave., Cleveland. About $60,000.

★**O., Cleveland**—Cleveland Ry., Leader-News Bldg., let contract building 1 story, 37 x 128 ft. garage and machine shop, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 55th St. and Harvard Ave., to W. I. Thompson & Sons Co., 5103 Euclid Ave. About $60,000.

★**O., Cleveland**—Cleveland Wrought Products Co., 3590 West 58th St., let contract building 1 story, 56 x 145 ft., brick and steel factory, brick foundation, to Hebing Co., 1832 West 54th St. About $50,000.

★**O., Coldwater**—New Idea Spreader Co. let contract building 2 story, 48 x 200 ft. factory, also 2 story, 47 x 163 ft. warehouse, rein.-con., steel and brick, rein.-con flooring, to Ferro Concrete Constr. Co., Richmond and Harriet Sts., Cincinnati. About $100,000.

★**O., Columbus**—Columbus Blank Book Co., 317 South High St., let contract building 2 story, 30 x 75 ft., concrete and brick factory, to A. Pitts, 2327 North High St. About $50,000.

★**O., Columbus**—Federal Chemical Co., 1200 Bonham Ave., let contract building 122 x 167 ft. addition to factory, frame, to Chemical Constr. Co., Trust Bldg., Charlotte, N. C. About $100,000.

★**O., Norwood**—Cincinnati Machine Tool Co., Waverly Ave., let contract building 1 story, 50 x 146 ft. addition to machine shop, rein.-con., steel and brick, brick and concrete foundation, to Fisher Devore Co., 1117 Harrison Ave., Cincinnati. About $50,000.

Ind., Indianapolis—G. C. Brinkmeyer & Co., 26 West Georgia St., received bid building 3 story, 50 x 90 ft., rein-con., brick and steel warehouse, on Senate Ave., from Bedford Stone & Constr. Co., Fletcher Saving & Trust Bldg.

★**Ill., East St. Louis**—Mobile and Ohio R.R., 320 North Bway., St. Louis, Mo., let contract building 2 story, 42 x 546 ft., brick freight house and office on Mobile and Ohio tracks, here, to Keeley Bros. Constr. Co., East St. Louis. About $200,000.

★**Wis., Milwaukee**—Amer. Shipbuilding Co., 54th St., N. W., Cleveland, let contract building 1 story, 50 x 100 ft., brick, concrete and steel pump house, rein.-con flooring, concrete foundation, on Washington St., to Meredith Bros., 1043 Kinnickinnic Ave. About $60,000.

★**Mo., Kansas City**—Kansas City Macaroni Co., 556 Campbell St., let contract building 5 story, 60 x 100 ft., rein.-con. and brick factory, to Patti-Moore. Okmulgee, Okla. About $60,000. Noted July 22.

★**Tex., Zavella**—Zavella Lumber Co., Woodville, let contract building 36 x 160 ft., mill construction saw mill, to F. Burdette, Nacogdoches. About $50,000.

★**Ont., Kitchener**—Dominion Tire & Rubber Co., 140 Strange St., let general contract building 3 story, rein.-con., brick and steel factory, power house and substation, rein.-con. flooring, concrete foundation, on King St. E., to Carswell Constr. Co., 58 Wellington St. E., Toronto; plumbing, to W. Knee & Co., 45 King St. Total, $85,000.

Buildings

PROPOSED WORK

Mass., Braintree (Boston P. O.)—High School—Town School Comm. plans to build 2 story, brick and steel, on Washington St. About $200,000. Architect not selected.

Mass., Brookline (Boston P. O.)—Hospital—Peter Bent Brigham Hospital, Huntington Ave., having plans prepared by Codman & Despradelle, archts., 27 Kelby St., Boston, for rein.-con., brick and steel addition to Ward A.

Mass., Lenox—Hotel—Aspinwall Hotel having plans prepared by J. M. Vance, archt., 24 North St., Pittsfield, for 5 story, 74 x 100 ft. brick and steel addition.

Mass., North Beverly (Beverly P. O.)—School—Bd. Educ. soon lets contract building 2 story, 100 x 100 ft., brick and steel on Conant St. About $150,000. Ashton & Huntress, 477 Essex St., Lawrence, archts.

Mass., Swampscott (Lynn P. O.)—Theatre—Sherburne Inc., 1 Beacon St. Boston, having plans prepared by C. T. McFarland, archt., 162 Newbury St., Boston, for 1 and 2 story, concrete, brick and steel. About $800,000.

R. I., Providence—Business—Lederer Realty Corp., 100 Stewart St., having plans prepared by W. R. Walker & Son, archts., 17 Custom House St., for concrete and brick on Weybosset and Broad Sts. About $100,000.

Conn., Bristol—Engine House—City plans to build central engine house, concrete, brick and steel. About $100,000. Architect not selected.

Buildings (Continued)

Conn., New Haven—Store and Lofts—C. H. Abramowitz, archt., 217 1st Natl. Bank Bldg., soon lets contract building 5 story, 56 x 70 ft., brick and mill construction, concrete foundation, for F. Teitelman, 146 State St. About $100,000. Noted Aug. 5.

Conn., Waterbury—Armory—Military Emergency Bd., State Armory, Hartford, rejected bids received July 26, building 4 story, 180 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Field St., here. About $400,000. Project postponed temporarily. L. A. Walsh, 51 Leavenworth St., archt. Noted July 22.

Conn., Waterbury—Theatre—P. Foti, and others, c/o . . J. Bailey, archt., 95 Bank St., having plans prepared altering and building 1 story, 70 x 110 ft., brick and rein.-con. addition, rein.-con. flooring, concrete foundation, on South Main St. About $150,000.

N. Y., New York—Club and Arena—Audubon Sporting Club, c/o D. F. Lang, archt. and engr., 110 West 34th St., receives bids about Aug. 28, building 2 story, 100 x 175 ft., brick, steel and stone, concrete foundation, on 145th St. and Lenox Ave. About $300,000.

N. Y., New York—Exchange—New York Telephone Co., 15 Dey St., having plans prepared by McKenzie, Voorhies & Gmelin, archts. and engrs., 1123 Bway., for 80 x 192 ft., brick, steel and stone, on West 73rd St. About $400,000.

N. Y., New York—Office—J. P. Morgan Co., 23 Wall St., having plans prepared by Trowbridge & Livingston, archts. and engrs., 527 5th Ave., for 20 story, brick, steel and stone addition, at 11-21 Broad St. About $4,000,000.

N. Y., New York—Office and Restaurant—Horn & Hardart, 600 West 50th St., had plans prepared by F. P. Platt, archt. and engr., 680 5th Ave., for 4 story, 28 x 78 ft., brick, steel and stone, concrete foundation, at 68 Trinity Pl. and 103-107 Greenwich St. About $500,000.

N. J., Newark—Office—A. Seidler Co., 13 Ward St., plans to alter 3 story, 180 x 350 ft., concrete and brick, on Orange and Ogden Sts. About $100,000. Architect not selected.

N. J., Trenton—Theatre—W. H. McElfatrick, archt., 701 7th Ave., New York City, soon receives bids building 2 story, 100 x 250 ft., concrete, steel and marble, on South Broad St., for Trent Theatre Bldg. Co., 17th North Warren St. About $800,000. Noted Jan. 15.

Pa., Clearfield—Memorial—Boro. retained Howard & Thompson, archts., Du Bois, to prepare plans for Clearfield Co. Soldiers Memorial, to be 2 story, 100 x 150 ft., brick and stone, at Witmer Park. About $100,000.

Pa., Coatesville—Theatre—Logges Bros., 258 East Main St., having plans prepared by R. A. Kerns, archt. and engr., 10 South 18th St., Phila., for altering 3 story, 45 x 100 ft., brick, on Main St. About $100,000.

Pa., East Conemaugh (Johnstown P. O.)—School—City election Aug. 31 to vote on $110,000 bonds to build 2 story, 60 x 110 ft., concrete and brick, rock foundation, on 1st and Locust Sts.

Pa., McKeesport—Dormitory, Nurses Home, etc.—McKeesport Hospital plans to build 4 story, 46 x 52 ft. and 37 x 168 ft. dormitory, also power house and 43 x 54 ft. nurses home, both 3 story, brick and steel, rein.-con. flooring. About $250,000. S. F. Heckert, Bessemer Bldg., Pittsburgh, archt.

D. C., Washington—Church—Sacred Heart Church receives bids about Oct. 1, building church, on 15th St. and Park Rd. About $1,000,000. Address P. C. Carven, Magginis & Walsh, 100 Boylston St., Boston, archts.

D. C., Washington—High School—Dist. Comrs. plan to build new Eastern High School, rein.-con., brick and steel. About $1,500,000.

Ky., Louisville—Hospital—Com. Community Council plans to build hospital. About $2,500,000.

O., Cincinnati—Restaurant—See "Industrial Works."

O., Cleveland—Bank—Morris Plan Bank, East 6th St. and Rockwell Ave., having plans prepared by F. C. Warner, archt., 764 Hippodrome Annex Bldg., for 2 story, 36 x 150 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Huron Rd. near East 9th St. About $150,000.

O., Cleveland—Bank and Office—Brotherhood of Locomotive Engrs., c/o W. S. Stone, Engrs. Bldg., plans to build 20 story, 130 x 168 ft., rein.-con., steel and brick, rein.-con. flooring, concrete and brick foundation on Ontario St. and St. Clair Ave. About $5,000,000. Architect not selected.

O., Cleveland—Memorial—Masonic Temple Assn., c/o A. Wright, 1373 E. 6th St., having sketches prepared by Hubbell & Benes, archts., 4500 Euclid Ave., for 21 story, 86 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 3500 Euclid Ave. About $4,000,000.

O., Cleveland—Store—May Co., Ontario St., had plans prepared by Lehman & Schmitt, archts., Electric Bldg., for remodeling steel and terra cotta. About $110,000.

O., Kent—Hotel—Kent Co. plans to build 3 story hotel on Main St. Cost between $125,000 and $150,000.

O., Toledo—Bank and Office—Commercial Bank, Valentine Bldg., plans to build 5 story, 40 x 120 ft., concrete, steel and terra cotta, on St. Clair and Adams Sts. About $300,000. H. W. Wachter, 314 Close Realty Bldg., archts. and engr.

Ind., Ft. Wayne—Almshouse Comrs. Allen Co. having plans prepared by C. R. Weatherhogg, archt., Hamilton Bank Blk., for 2 story, rein.-con., brick and steel, near here. About $600,000.

Ind., Indianapolis—Church—Tabernacle Presbyterian Church, 11th and Meridian Sts., having plans prepared by J. W. Corbusier, Lennox Bldg., Cleveland, O., and R. F. Doggat, Indianapolis, archts., for 1 and 2 story, brick, steel and stone, brick foundation, on East 30th St. and Central Ave. About $300,000.

Mich., Ann Arbor—Dormitories—University of Michigan having plans prepared by York & Sawyer, archts a nd engrs., 50 East 41st St., New York City, for brick, steel and stone, brick foundation. About $700,000.

Mich., Detroit—Bank—Bank of Detroit, Fort St. W., having plans prepared by Glaver, Dinkelberg & Ellington, archts., Book Bldg., for 2 story, 50 x 195 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Fort St.

Mich., Flint—Y. M. C. A. having plans prepared by Davis, McGrath & Kiessling, archts., 220 5th Ave., New York City, for several brick, steel and stone dormitories, brick foundation. About $500,000.

Mich., Lansing—School—Bd. Educ. had plans prepared by J. N. Churchill, archt., Lansing, for 3 story, 80 x 306 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $325,000.

Wis., De Pere—College—St. Norberts College having having plans prepared by W. E. Reynolds, archt., 113 South Roosevelt St., Green Bay, for 3 story, rein.-con. and brick addition, rein.-con. flooring, concrete foundation. About $250,000.

Wis., Kenosha—Hotel—M. A. Rasmussen, Somers, plans to build 6 story, rein.-con. and brick, rein.-con. flooring, concrete foundation on Park St. About $300,000. Architect and engineer not selected.

Wis., La Crosse—Grade School—Bd. Educ. soon receives bids building 2 story, rein.-con., brick, steel and stone. About $120,000. O. Merman, La Crosse, archt.

Wis., Manitowoc—Club, Store and Office—Manitowoc Aerie of Eagles plans to build 3 story, 100 x 220 ft., rein.-con., brick and steel, brick foundation, on South Main St. About $200,000. Architect not selected, probably private plans. J. Koutnik, 1114 South Main St., chn.

Wis., Manitowoc—Hotel—J. M. Kadow, 1116 Washington St., plans to build 2 story, 120 x 156 ft., concrete, steel and brick, rein.-con. flooring, concrete foundation. About $100,000. S. F. Kadow, 97 Wisconsin St., Milwaukee archt.

Wis., Reedsburg—Bank and Office—Reedsburg State Bank had plans prepared by Childs & Smith, archts., 64 East Van Buren St., Chicago, for 2 story, 25 x 183 ft., brick, rein.-con. and steel, brick foundation, on Main St. About $100,000. R. P. Perry, pres.

Wis., Sheboygan—Clinic—Sheboygan Clinic Assn., having preliminary plans prepared for 3 story, 65 x 200 ft., rein.-con., brick and steel, brick foundation. About $100,000. W. Gunther, 902 North 8th St., pres.

Ia., Des Moines—Office—Central Life Assurance Co., Central Life Bldg., plans build 10 story, 130 x 187 ft., on 5th and Grand Ave. About $500,000. G. B. Pe pres. Architect not selected.

Minn., Austin—High School—Bd. Ed plans to build 3 story, rein.-con., brick steel. About $500,000. J. E. Crippen, s

Minn., Duluth—School—Cathedral Par 211 West 4th St., soon lets contract build 2 story, 110 x 150 ft., concrete, steel, br and limestone, rein.-con. flooring, conc foundation, on 28th Ave. About $250,0 Maginnis & Walsh, 100 Boylston St., B ton, Mass., archts. Noted June 10.

Minn., Gilbert—Hospital—St. Louis (Duluth) plans to build 3 story, 120 x ft., rein.-con., brick and steel, rein.-co flooring, concrete foundation, here. Al $275,000. A. A. Frost, Eveleth, chn. Arc tect not selected.

Minn., Minneapolis—Chapel, Auditoriu etc.—First Baptist Church having pla prepared by Kees & Colburn, archts., 24 Plymouth Bldg., remodeling chapel and lo and enlarging auditorium, on 10th St. an Harmon Pl. About $190,000. W. B. Rife pastor.

Minn., Pine Island—High School—Bd Educ. plans to build 2 story, 60 x 106 ft rein.-con. and brick. Stebbins & Haxby 445 Auditorium Bldg., Minneapolis, archts

Minn., St. Paul—Municipal—City and Ramsey Co. having plans prepared by C. A Hausler, city archt., for municipal building rein.-con. and brick, on 3rd and Cedar Sts About $400,000.

Kan., Emporia—Hospital—Lyon Co Hospital Bd. rejected bids received Aug 2, building 4 story, 40 x 150 ft., rein.-con rein.-con. flooring. Additional bonds for project will be voted later. J. H. Felt & Co., 802 Grand Ave. Temple, Kansas City Mo., archts. Noted July 29.

Kan., Kansas City—Passenger Station—Chicago, Rock Island & Union Pacific R R Union Station Bldg., Kansas City, Mo., had plans prepared building 1 story, 34 x 141 ft., stone, rein.-con. and terra cotta, on 7th St and terminal tracks, here. About $150,000. J. V. Hanna, ch. engr. Rose & Peterson, Barker Bldg., archts.

S. D., Waverly—School—Independent School Dist. 1, will probably receive bids in fall, building 2 story, 80 x 109 ft. rein.-con. and brick. About $100,000. M. T Anthony, clk. K. T. Snyder, 739 Plymouth Bldg., Minneapolis, Minn., archt.

Mo., Desloge—Hotel and Bathhouse—Goff Mineral Springs & Hotel Co. plans to build modern hotel and bathhouse. About $250,000. J. L. Goff, pres.

Mo., Elvins—School—Bd. Educ. having plans prepared by J. H. Felt, archt., Grand Ave. Temple Bldg., Kansas City, for 3 story, 45 x 150 ft., brick, rein.-con. flooring. About $100,000.

Tex., Amarillo—Coliseum—City plans election soon to vote on $300,000 bonds to build coliseum. Address, mayor.

Tex., Cisco—High School—City voted $250,000 bonds to build high school.

Tex., Dallas—School—School Bd. receives bids about November, building 2 story, brick and concrete, on Haskell and McKinney Sts. About $600,000. Former bids rejected. Noted May 6.

Tex., El Paso—Office—See "Industrial Works."

Que., Hull—Memorial—City having plans prepared building memorial. About $100,000. Architect not selected.

Que., Montreal—Store—Normandin & Freres, Baeulieu St., plan to build 3 story, 100 x 147 ft., concrete, brick and steel, concrete foundation, on St. Lawrence St About $105,000.

Ont., Ottawa—Hospital—City plans to build tuberculosis hospital on Carling Ave. About $200,000. Architect not selected.

BIDS DESIRED

Me., Madison—High School—Bd. Educ receiving bids building 2 story, 80 x 146 ft brick and steel, concrete foundation, on Folsom St. About $125,000. H. S. Coombs, 11 Lisbon St., Lewiston, arcts.

N. H., Manchester—High School—Until Aug. 31, by Bd. Educ., building 3 story, 40 room, brick, concrete and steel, rein.-con flooring, concrete foundation. About $450,000. C. R. Whitcher, 814 Elm St., archt Noted April 8.

Buildings (Continued)

N. H., Manchester—High School—Until Aug. 31, by Bd. Educ., building 3 story, 100 x 110 ft., brick and steel, rein.-con. flooring, concrete foundation, on Notre Dame Ave. About $300,000. W. E. Provost, 581 Union St., archt. Noted April 8.

N. H., Manchester — School — Until Aug. 31, by Bd. Educ., building 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation. About $150,000. W. M. Butterfield Co., 801 Beech St., archts. Noted June 17.

Mass., Wareham—School—Until Aug. 17, by Bd. Educ. building 1 story, 100 x 160 ft., tile, brick and steel. About $100,000. W. H. McLean, 110 Tremont St., Boston, archt.

N. Y., Brooklyn—Bank—Until Aug. 23, by W. H. Gompert, archt. and engr., 171 Madison Ave., New York City, building 2 story, 50 x 120 ft., brick, steel and stone, brick foundation, on Pennsylvania and Liberty Aves., for Homestead Bank of East New York, 141 Pennsylvania Ave. About $300,000.

Pa., Coatesville — Hotel — R. A. Kerns, archt. and engr., 10 South 18th St., Phila., receiving bids building 3 story, 50 x 70 ft., brick, for I. Forman, 205 Main St. Cost to exceed $100,000.

Pa., East Pittsburgh—School—C. P. Hitchens, archt., 1st Natl. Bank Bldg., Pittsburgh, receiving bids building 2 story, 22 x 51 ft., and 111 x 139 ft., limestone, brick and steel, rein.-con. flooring, on Howard and Madison Aves., for Bd. Educ. About $250,000.

Pa., Jeanette—High School—Until Sept. 2, by Bd. Educ., building 2 story, 125 x 225 ft., brick and steel, rein.-con. flooring. About $200,000. W. J. Peoples, Monongahela Bank Bldg., Pittsburgh, archt. Former bids rejected. Noted July 15.

O., Lakewood (Cleveland P. O.)—Grade School—Until Aug. 25, by Bd. Educ., building 2 story, 44 x 92 ft., brick, steel and concrete annexes, to Lincoln, McKinley and Franklin Schools. About $250,000. C. W. Hopkinson, Rose Bldg., Cleveland, archt. Noted Feb. 12.

O., Urbana—School—Until Aug. 26, by H. Baker, clk. Bd. Educ., building 2 story, 75 x 75 ft. fireproof construction, on South Main St., About $100,000. F. Y. Mueller, Rentschler Bldg., Hamilton, archt.

Ind., Indiana Harbor — Theatre — C. E. Potts, c/o Inland Steel Co., Mill Block Ave., receiving bids building 1 story, 100 x 300 ft., rein.-con., brick, steel and terra cotta. About $350,000. N. L. Newhouse, 4630 Prairie St., Chicago, archt.

Ind., Petersburg — Court House — Until Aug. 30, by Comrs. Pike Co., building 3 story, 110 x 110 ft., rein.-con., brick, steel and stone. About $400,000. E. E. Dunlap, 909 State Life Bldg., Indianapolis, archt.

Mich., Adrian — School — P. Dederichs, archt., 501 Chamber of Commerce Bldg., receiving bids building 3 story, 69 x 136 ft., brick and stone, concrete foundation, for St. Josephs Academy. About $125,000.

Mich., Detroit—Hotel—Until Aug. 20, by M. H. Finkel, archt., 333 Majestic Bldg., constructing 4 story, 100 x 100 ft., brick and steel, brick foundation, on Montcalm Ave., for S. Plotkin, c/o architect. About $125,000.

Ia., Ollie—School—Until Sept. 3, by Bd. Educ., building 2 story, 58 x 98 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation. About $100,000. J. D. Ridgeway, secy. W. E. Hulse & Co., 309 Securities Bldg., Des Moines, archts. Noted Feb. 19.

Minn., Ely—Housing—Until Aug. 20, by S. S. Rumsey, archt. and engr., Wolvin Bldg., Duluth, building 18 houses, various sizes, rein.-con., steel and brick, concrete foundation, at Pioneer and Sibley Mines, for Oliver Iron Mining Co., Wolvin Bldg., Duluth. About $135,000.

Kan., Lincoln—School—Until Aug. 24, by Bd. Educ., building 2 story, brick, stone and rein.-con. W. W. Troupe, secy. W. H. Saylor Co., Mutual Bldg., Kansas City, Mo., engrs. Noted July 8.

Col., Denver—High School—Until Sept. 15, by School Bd., building Morey Jr. High School, 2 story, 158 x 340 ft., rein.-con., brick and tile, concrete foundation, on 13th and 14th Aves. and Emerson and Clarkson Sts. About $450,000. Fisher & Fisher, Century Bldg., archts.

Ont., Ottawa—Schools—Until Aug. 26, by Public School Bd., building 3 story additions to Cambridge St. and 5th Ave. Schools, concret foundation. About $117,000 and $172,000 respectively. W. C. Beattie, Elgin St. School, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Cambridge — Hospital — E. T. Graham, archt., 20 Beacon St., Boston, received only bid building 3 story, 77 x 140 ft., brick, concrete and steel addition to City Hospital, on Cambridge St., Mt. Auburn Sect., from Walsh Bros., 150 Hampshire St., $201,000. Noted Aug. 5.

★**Mass., Mattapan** (Boston P. O.)—Store and Offices—A. D. Boyle, archt., 498 Norfolk St., let contract to J. Rugo, 173 Magnolia St., Roxbury, building 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Blue Hill Ave. and Oakland St. About $100,000. Owner's name withheld.

Mass., New Bedford—School—Bd. Educ. received only bid building 2 story, 153 x 166 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Summer St. from G. Howard & Sons Co., 153 Main St., Brocton. About $724,000. Noted July 22.

★**R. I., West Warwick** (Warwick P. O.) — Theatre — Black-Spitz Theatres, Inc., Caesar-Mesch Bldg., Providence, let contract building 1 story, 60 x 155 ft. brick, steel and stone, concrete foundation, to Weiss Constr. Co., 40 Court St., Boston. About $100,000.

Conn., Bristol — High School — School Comn. received bids Aug. 3, building 4 story, 150 x 250 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, at Dunbar Meadows, from G. Dose Eng. Corp., 43 West 27th St., New York City, $947,952; T. J. Pardy Constr. Co., 1481 Seaview Ave., Bridgeport, $952,000. Noted July 22.

★**Conn., Naugatuck**—Housing—Goodyear India Rubber Glove Co., 58 Maple St., let contract building several 2 story, brick and frame houses for workmen, concrete foundation, to F. T. Ley & Co., Inc., 499 Main St., Springfield, Mass. About $200,000.

★**Conn., Sound Beach** — Business — G. Boles, Riverside Ave., will build 2 story, 44 x 201 ft., brick and steel, rock foundation, on Main St. Work will be done by day labor.

★**Conn., South Norwalk** — Business — F. Jacoby, 1075 Broad St., Bridgeport, let contract constructing 2 story, 90 x 105 ft., brick, concrete and steel, wood flooring, concrete foundation, on South Main St., here, to T. J. Pardy Constr. Co., 1484 Seaview Ave., Bridgeport.

★**N. Y., Brooklyn**—School and Auditorium—Hebrew Institute of Borough Park, c/o L. A. Abramson, archt. and engr., 46 West 46th St., New York City, will build 3 story, brick, steel and stone, on 14th Ave. between 50 and 51st Sts. About $400,000. Work will be done by day labor under supervision of architect.

★**N. Y., New York**—Hotel—Hotels Statler, Pennsylvania Hotel, let contract building 2 story, brick, steel and stone addition to Pennsylvania Hotel, on 33rd St. and 7th Ave., to G. A. Fuller, 175—5th Ave. About $250,000.

★**N. Y., New York**—Office—J. McE. Bowman, Hotel Commodore, let contract converting Hotel Manhattan, on 42nd St., into office building, to G. A. Fuller, 175—5th Ave. About $800,000.

★**N. J., Hackensack**—Hospital—Hackensack Genl. Hospital, 3rd St., let contract building brick, steel and stone addition to hospital, rein.-con. flooring, concrete foundation, also 1 story power plant, to W. H. White Constr. Co., Hackensack. About $150,000. Noted April 29.

N. J., Roselle Park (Elizabeth P. O.)—School—Bd. Educ. received bids building 1 and 2 story, 77 x 118 ft., concrete and brick, in Aldene Park, from C. Flochen, 681 Newark Ave., Elizabeth, $126,998; Flynn Bros., 390 George St., New Brunswick, $131,009. Noted July 29.

★**Pa., Pittsburgh**—University—University of Pittsburgh, Bigelow and Parkman Sts., let contract constructing engineering school, 1 story, 50 x 180 ft., brick and steel, to Austin Co., Union Arcade. About $100,000.

★**Va., Richmond**—Church, Parish House, etc.—Church Holy Comforter, W. E. Cox, pastor, 2110 Grove Ave., let contract building 1 and 2 story, brick and steel, to C. H. Archer, 2515 Hanover St. About $130,000, cost plus percentage basis.

★**W. Va., Morgantown**—Bank and Office—Monongahela Bldg. Co. let contract building 8 story, 78 x 86 ft., brick, steel and limestone, rein.-con. flooring, on High and Court Sts., to Cole Bros. Co., Morgantown. About $300,000.

★**O., Cleveland** — Church — Christian Church, c/o C. Tousley, archt., 4500 Euclid Ave., let contract building 1 story, 45 x 72 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Lorain Ave. and West 119th St., to T. H. Brooks & Co., 3104 Lakeside Ave. About $100,000.

O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., received bids building addition to South High Annex, 1 story, 50 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Bway., from A. A. Lane Constr. Co., 1836 Euclid Ave., $87,960; C. Peterson Co., 4500 Euclid Ave., $98,000; C. A. Carson Co., 1721 East 38th St., $100,840. F. G. Hogan, dir.

O., East Cleveland—School—Bd. Educ. received bids July 30, building 2 story, 12 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Mayfair Rd., from Tenbusch-Parker Constr. Co., Union Bldg., Cleveland, $168,662; C. Peterson Co., 4500 Euclid Ave., Cleveland, $170,260; Schirmer-O'Hara Co., 2031 Euclid Ave., Cleveland, $182,000. Noted July 22.

★**O., Lakewood** (Cleveland P. O.)—Bank and Commercial—Colonial Savings & Loan Co., 14600 Detroit Ave., let contract building 2 story, 47 x 80 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Detroit Ave. and Warren Rd., to F. W. Shaw, 17416 Norton Ave. About $100,000.

★**Ind., Hillsboro**—School—Bd. Educ. let contract building 2 story, 61 x 114 ft., rein.-con., brick and steel, to J. K. Mitchell Co., Lebanon. About $100,000.

Ind., Indianapolis — Hospital—Methodist Hospital received only bid building 6 story, 75 x 100 ft., wing, rein.-con., brick and steel, on 16th St., from J. G. Karstedt, 429 Lemcke Bldg.

★**Ind., Terre Haute**—School—Trustees Van Buren Twp., Brazil, let contract building 2 story, 75 x 150 ft., brick and stone, here, to Urban & Apple, Brazil. About $125,000.

★**Mich., Detroit**—Schools—Bd. Educ. let contracts furnishing labor and material building (1) Pattengill School, (2) George School, (3) White School, (4) Davison School, (a) masonry, (b) carpentry, (c) heating, (d) electric wiring, to F. H. Goddard, 516 Franklin St., (1a) $188,860; Harcus Co., 774 Russel St., (1b) $86,834, (2b) $33,067; Irvine & Meier, 2289 Woodward Ave., (1c) $94,272; J. Miller Electric Co., 258 Randolph St., (1d) $12,868; M. Bartholomaei Son & Co., 466 East Warren Ave., (2a) $91,445; J. W. Partlan, 51 Park Pl., (2c) $56,995 (3c) $92,850; Howell-Sewell Co., 24 East Woodbridge St., (2d) $9,490, (3d) $14,600; J. Bollin, 906 Bellevue Ave., (3a) $256,885; E. Thiede, 287 Berlin St., (3b) $66,500; Culbertson & Kelly, 814 Ford Bldg., (4a) $96,347; H. M. Martens Co., 221 Moffat Bldg., (4b) $52,167; O'Connor Bros., Vinton Bldg., (4c) $85,741; Iron City Eng. Co., 1332 Dime Bank Bldg., (4d) $7,745. Noted July 29.

★**Ill., East St. Louis**—Office—See "Industrial Works."

★**Ia., Spencer**—Hotel—T. M. Tangley let contract building 4 story, 86 x 117 ft., brick, rein.-con. and steel, to Spencer Constr. Co., Spencer. About $144,000.

★**Minn., Eveleth**—Housing—Oliver Mining Co., Wolvin Bldg., Duluth, will build 14 houses, various sizes, rein.-con., and brick, concrete foundations, at Leonidas Mine. About $111,000. Work will be done by day labor.

Minn., Minneapolis—School—Bd. Educ. received bids July 30, building Eugene Field Grade School, 2 story, 60 x 191 ft., rein.-con. and brick, on 46th St. between 4th and 5th Aves., from Fleisher Constr. Co., 608 Builders Exch., $138,000, J. & W. A. Elliott Co., 906 Lumber Exch., $139,892, F. N. Hegg, 2942 Nicollet Ave., $141,641. Noted July 15.

★**Kan., Winfield**—Hotel—Winfield Hotel Co. let general contract building 14 story, 94 x 135 ft., rein.-con., brick and steel, rein.-con. flooring, to Westlake Constr. Co., Ry. Exch. Bldg., St Louis About $750,000.

★**N. D., Bismarck**—Memorial—State Bd. Administration let contract building (1st story) of 3 story, 51 x 100 ft., rein.-con. and Bedford stone, on Capitol grounds, to Colwell-Long Co., 354 Plymouth Bldg., Minneapolis, Minn., $87,742. Total cost $200,000. Noted July 22.

Buildings (Continued)

★**Wyo., Casper** — Bank and Office — Garbutt Weidner & Sweeney, archts., Oil Exch. Bldg., let contract to Reavill & Shobloom, Bank Bldg., Denver, Col., building 6 story, 100 x 100 ft., brick, stone and terra cotta, for Wyoming Natl. Bank. About $316,500. Noted May 13.

★**Mo., Springfield**—Church—Grace Methodist Episcopal Church let contract building 2 story, 98 x 156 ft., concrete and stone, to G. F. Hentschel, Aurora. About $125,000. Noted April 29.

★**Col., Denver**—Office and Exchange—Mountain States Telephone & Telegraph Co., 1429 Champa St., will build 2 or 4 story, 125 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 14th and Curtis Sts. About $350,000. Work will be done by day labor.

★**Ariz., Mesa**—Schools—School Dist. let contracts building 1 story, 10 room, also 1 story, 2 room, both brick, tile and stucco, to R. P. Morrison & Co., Phoenix, $86,000 and $13,900 respectively.

★**B. C., Marpole** — School — Point Grey School Trustee, Kernsdale, will build 3 story, rein.-con. and brick, concrete foundation, here. About $175,000. Work will be done by day labor.

Federal Government Work

Order 166—Bureau Yards & Docks, Navy Dept., Wash., D. C. — It is directed that hereafter no estimated cost to be given or published on prospective projects, either prior to or during period of advertisement.

PROPOSED WORK

D. C., Wash.—Building Extension—Treas. Dept., Wash., D. C., plans to construct extension to 4th floor, with new roof of east and north end of Treasury Bldg. J. A. Wetmore, superv. archt.

O., Dayton—Barracks, Mess Hall, etc.—Natl. Military Home plans to remodel five 3 and 4 story barracks, also build new mess hall, brick, rein.-con. flooring, brick foundation. About $250,000. Schenk & Williams, Mutual Home Bldg., archts.

BIDS DESIRED

Tex., Del Rio — Sewage Ejector — Until Aug. 27, by Treas. Dept., Wash., D. C., installing in Post Office and Courthouse, here. J. A. Wetmore, superv. archt. Noted July 29.

Ore., Astoria—Remodeling Post Office—Until Aug. 31, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt. Noted Aug. 5.

Cal., Mare Island — Heating System — Spec. 4189—Until Aug. 25, by Bureau Yards & Docks, Navy Dept., Wash., D. C., furnishing and installing in structural shop at Navy Yard, here; $10 deposit required for plans and spec. Noted July 15.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Me., Augusta — Remodeling Post Office and Courthouse—Treas. Dept., Wash., D. C., received only bid Aug. 4, remodeling, here, from G. W. Wright, Inc., Monadnock Blk., Chicago, $7,580. Noted July 15.

N. J., Jersey City—Remodeling Post Office—Treas. Dept., Wash., D. C., received bids Aug. 5, remodeling, here, from D. E. Conners, 15 West 91st St., New York City, $19,000; J. C. McKenna, 348 Sprigg St., West Hoboken, $19,262. Noted July 22.

★**Tenn., Chattanooga**—Extending Workroom—Treas. Dept., Wash., D. C., let contract extending workroom and driveway, also altering interior of U. S. Post Office and Courthouse, here, to W. P. Thurston, Merchants Natl. Bank, Richmond, Va., $9,400. Noted Aug. 5.

Utah, Park City—Post Office—Treas. Dept., Wash., D. C., received only bid Aug. 2, building, here, from King Lumber Co., Charlottesville, Va., $34,950. Noted July 1.

Miscellaneous

PROPOSED WORK

Transmission Line—Point Pleasant N. J.—Lakewood & Coast Electric Co., Arnold Ave., plans to build 15 mi. 13,200 volt, 3 phase, 3 wire transmission line from here to Sea Side Heights. S. W. Borden, genl. mgr.

Piers—Phila., Pa.—Dept. Wharves, Docks & Ferries, Bourse Bldg., plans to raze present piers and build two 160 x 550 ft. and one 80 x 550 ft. piers, on Delaware Ave. between Market and Appletree Sts. About $4,000,000.

Tract Development — Logan, W. Va. — Merrill Coal Co. plans to develop tract on Little Buffalo Creek, Logan Co., to be known as Henlawson, cost $1,000,000. Work includes bridge, $100,000, also 3 mi. railway along above creek, $300,000. Address C. Jones, c/o owner.

Transmission Line — Stephen, Minn. — Minnesota Electric Distributing Co., Crookston, plans to build 50 mi. transmission line from here to Crookston.

Dam—Billings, Mont.—Yellowstone Irrigation Assn. having palns prepared for dam over Yellowstone River to irrigate 500,000 acres in Yellowstone Valley. J. Locke, secy.

Dam — Cotter, Ark. — Dixie Power Co., Little Rock, applied to Congress for approval for building 1,800 ft. dam, 200 ft. high, across White River, near here, to generate electrical power. H. A. Allen, Chicago, Ill., archt.

Electric Light System — Niagara Falls, Ont.—City Council passed by-law authorizing $33,000 to extend and improve electric light system. O. T. Black, City Hall, engr.

BIDS DESIRED

Plumbing, etc.—Brooklyn, N. Y.—Until Aug. 18, by E. S. Walsh, supt. pub. wks., Capitol, Albany, installing plumbing and water supply system at Barge Terminal, Greenpoint, Cont. 223-P. About $6,500.

Terminal—Buffalo, N. Y.—Until Sept. 9, by E. S. Walsh, supt. Pub. Wks., Albany, building portions dock wall around Ohio Basin, here, Contr. 53-A, storage yards at Erie Basin, here, Contr. 76, also furnishing and installing jib cranes at Barge Canal terminal, at Erie Basin, here, Contr. 114; advertised in this issue.

Terminal—Rouses Point, N. Y.—Until Sept. 9, by E. S. Walsh, supt. Pub. Wks., Albany, completing terminal, here, Contr. 26-A; advertised in this issue.

Pumps—Summit, N. J.—Until Aug. 17, by Common Council, furnishing two 2,000,000 and one 1,000,000 gal. centrifugal sewage pumps with motors. F. C. Kentz, clk.; advertised in this issue. Noted July 15.

Foundation, Tunnels, etc. — McKeesport, Pa. — McKeesport Hospital receiving bids building foundations, tunnels and chimney for 4 story, 46 x 52 ft. and 37 x 168 ft. dormitory, also power house and 43 x 54 ft. nurses' home, both 3 story. Total cost, $ 250,000. S. F. Heckert, Bessemer Bldg., Pittsburgh, archt.

Rail—Phila., Pa.—Until Aug. 17, by W. S. Twining, dir. Dept. City Transit, 1211 Chestnut St., furnishing 800 gross ton special 70 lb. conductor rail for Frankford Elevated Ry. (Constr. 547).

Ash Fillers, Coal Platform, etc.—Baltimore, Md.—Until Aug. 18, by Bd. Awards, c/o City Register, building 4 ash conveyor fillers, 1 coal weighing and 1 valve operating platform, at Sewage Pumping Sta. on Eastern Ave. and President St. H. G. Perring, ch. engr.

Gravel Pit Outfit—Richmond, Va.—F. F. Hough, 106 North 8th St., receiving bids for gravel pit outfit.

Retaining Wall, etc.—Cleveland, O.—Until Sept. 6, by Bd. Educ., East 6th St. and Rockwell Ave., building concrete retaining wall, iron fence, and grading and laying brick walks, at North Doan School. About $40,000. W. R. McCormack, c/o Bd. Educ., engr.

Steel, Cement and Boilers — Hartford, Wis.—Kissell Motor Co. receiving bids furnishing steel and concrete for boiler plant, also several pipe boilers. About $25,000. Cahill & Douglas, 217 West Water St., Milwaukee, engrs.

Paving Material—St. Paul, Minn.—Until Aug. 16, by H. W. Austin, purch. agt., City Hall, furnishing 2,970 bbl. Portland cement, 2,227 cu.yd. crushed rock for concrete base, 1,338 cuyd. concrete sand, 144 cu.yd. crushed rock or gravel for curb, 100 cu.yd. screened sand, 241 ton asphalt [illegible]ment, 915 cu.yd. fine asphalt sand, [illegible] ton limestone dust, 328 ton trap rock [illegible] asphalt concrete surface, 655 ton bin[illegible] stone, 302 lin.ft. 12 in. vitr. clay sewer pi[illegible] etc.

Sludge Pump and Motor—Willmar, Min[illegible]—Until Aug. 22, by H. Gunderson, city c[illegible] furnishing sewer sludge pump and 5 h[illegible] electric motor.

Wharf—Owen Sound, Ont.—Until Au[illegible] 31, by Dept. Pub. Wks., Ottawa, buildi[illegible] wharf, 739 ft. long, 10 ft. wide, on p[illegible] bent substructure and concrete superstru[illegible]ure, with stone filling. About $70,000. [illegible] Lafleur, Ottawa, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Bricks—Boston, Mass.**—City let contract furnishing 200,000 vitr. paving bricks, to J. W. Hahn, 166 Devonshire St. Noted July 29.

Paving Bricks—Boston, Mass.—City let contract furnishing 200,000 vitr. paving bricks, to J. W. Hahn, 166 Devon St.

★**Tunnel — Foxboro, Mass.** — Massachusetts State Hospital, Dept. Mental Diseases, Boston, will build 6 x 7 x 120 ft., rein.-con. tunnel, here. Work will be done by day labor.

★**Foundation — Waterbury, Conn.** — St. Mary's Hospital, Franklin St., let contract building concrete foundation for 5 story, 60 x 132 ft. addition, to G. S. Chatfield Co., 138 Division St. Total cost, $500,000. Noted July 22 under "Buildings."

Highway Materials—New York, N. Y.—Bd. Purchase, 526 Municipal Bldg., let contract furnishing and delivering highway materials to Dept. of Parks, to G. J. Wolf, 143 Brook Ave. About $2,000. Noted July 15.

Road Materials—New York, N. Y.—Bd. Purchase, Municipal Bldg., let contract furnishing and delivering wood paving blocks, sand, cement, broken stone, etc., to Amer. Creosoting Co., 17 Battery Pl., $8,445. Noted July 8.

★**Subway—Chicago, Ill.**,—Illinois Central R.R., 161 West Jackson Blvd., let contract building subway, crossing Michigan Ave. at Randolph St., to Nash-Dowdle Co., 29 South La Salle St.

★**Condenser — Port Washington, Wis.** — City let contract furnishing, building and connecting condensor, to Nordberg Mfg. Co., Chicago and Oklahoma Sts., Milwaukee. About $10,000.

★**Transmission Line — Spooner, Wis.** — Apple River Milling Co. let contract building 30 mi. 22,000 volt transmission line, to St. Paul Electric Co., 145 East 5th St., St. Paul. About $30,000.

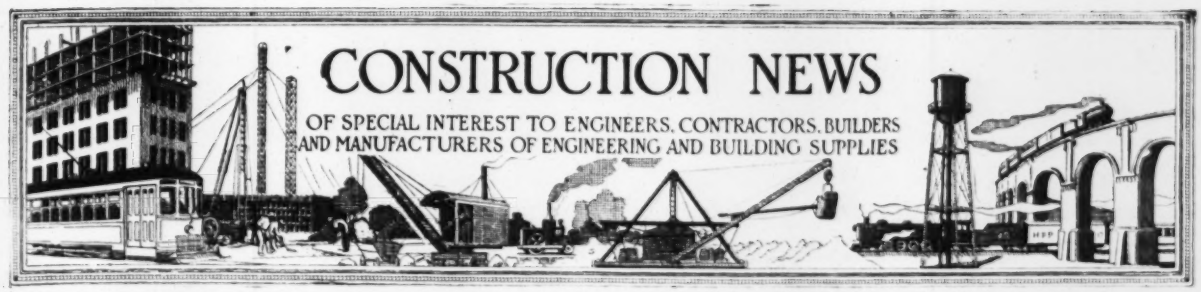
★**Pumping Equipment—Pipestone, Minn.**—City let contract furnishing pumping equipment for waterworks system, to R. B. Whitacre & Co., 205 South Robert St., St. Paul. Noted June 29, under "Waterworks."

Paving Material—St. Paul, Minn.—H. W. Austin, purch. agt., received bids July 26, furnishing following materials for paving Fairfield Ave., 2,608 cu.yd. crushed rock for concrete base, from J. L. Shiely Co., 6th and St. Peters Sts. and Stiefel Fuel & Cement Co., 501 Concord St., at $2.74 per cu. yd.; 488 cu.yd. binder stone, from Minnesota Crushed Stone Co., 1500 Johnson St., N. E., Minneapolis, $2.75, f.o.b asphalt plant

White Way and Street Lighting System—Watertown, S. D.—City received bids installing white way and street lighting system, from St. Paul Electric Co., 145 East 5th St., St. Paul, Minn., $99,898; Kelly Constr. Co., 314 South Barstow St., Chippewa Falls, Wis., $108,450; Electric Constr. Co., 174 East 6th St., St. Paul, Minn., $108,660.

★**Foundation—Denver, Col.**—School Bd. let contract building concrete foundation for Morey Jr. High School, 2 story, 158 x 340 ft. rein.-con., steel and brick, to A. Olson, 655 Vine St. About $35,000.

★**Pier—Seattle, Wash.**—Great Northern R.R., 714 2nd St., let contract rebuilding Smith Cove pier, 600 ft. long and 122 ft. wide, to J. A. Mc Eachern Co., Colman Bldg. About $75,000.



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 23	Middletown, N. Y.	Aug. 5
Aug. 23	Owosso, Mich. Adv. Aug. 19.	Aug 19
Aug. 24	Cedarburg, Wis.	Aug. 5
Aug. 25	Marcy, N. Y.	July 29
Aug. 27	Freeport, Minn.	Aug. 19
Sept. 1	Springwells, Mich.	Aug. 19
Sept. 8	Tunica, Miss.	Aug. 19

SEWERS

Bids Close		See Eng. News-Record
Aug. 20	Brooklyn, N. Y.	Aug. 12
Aug. 23	Allentown, Pa.	Aug. 5
Aug. 23	Euclid, O.	Aug. 12
Aug. 23	Benson, Minn.	Aug. 19
Aug. 23	Long Island City, N. Y.	Aug. 19
Aug. 23	St. George, S. I., N. Y.	Aug. 19
Aug. 25	Reading, Pa.	Aug. 5
Aug. 26	St. George, S. I., N. Y.	Aug. 19
Aug. 30	Muncie, Ind. Adv. Aug. 19.	Aug. 19
Aug. 31	St. Louis, Mo.	Aug. 12
Aug. 31	Pawtucket, R. I. Adv. Aug. 19.	Aug. 19
Sept. 7	Wash., D. C.	Aug. 19

BRIDGES

Bids Close		See Eng. News-Record
Aug. 23	Claxton, Ga.	July 22
Aug. 23	Bonham Tex.	Aug. 5
Aug. 24	Harrisburg, Pa. Adv. July 29 to Aug. 19.	July 29
Aug. 24	Oregon	Aug. 19
Aug. 24	Jasper, Tex.	Aug. 19
Aug. 25	North Carolina	Aug. 5
Aug. 25	Powys (Trout Run P. O.), Pa.	Aug. 5
Aug. 25	Reading Pa.	Aug. 5
Aug. 25	Maine Adv. Aug. 12 and 19.	Aug. 12
Aug. 25	Illinois	Aug. 19
Aug. 30	Ebensburg, Pa.	Aug. 19
Aug. 31	New Jersey Adv. Aug. 12 and 19.	Aug. 19
Sept. 3	Mt Vernon, N. Y. Adv. Aug. 19.	Aug. 19
Sept. 3	Moundsville, W. Va.	Aug. 19
Sept. 6	Nenana, Alaska	Aug. 5
Sept. 6	Burlington, Ont.	Aug. 12
Sept. 10	Victoria, B. C.	Aug. 12
Sept. 15	Portsmouth, N. H. Adv. Aug. 12 and 19.	Aug. 12

STREETS AND ROADS

Bids Close		See Eng. News-Record
Aug. 23	New Jersey	Aug. 12
Aug. 23	Indiana	Aug. 19
Aug. 23	Montana	Aug. 19
Aug. 23	Montreal, Que.	Aug. 19
Aug. 23	Texarkana, Tex.	Aug. 19
Aug. 23	Long Island City, N. Y.	Aug. 19
Aug. 24	Michigan	Aug. 12
Aug. 24	Webster Springs, W. Va. Adv. July 29 to Aug. 19.	July 29
Aug. 24	Missouri	Aug. 5
Aug. 24	Columbia, S. C.	Aug. 5
Aug. 24	Glenville, W. Va.	Aug. 12
Aug. 24	Morgantown, W. Va	Aug. 12
Aug. 24	Maryland	Aug. 19
Aug. 24	Amherst, N. S.	Aug. 19
Aug. 24	Oregon	Aug. 19
Aug. 24	Maryland Adv. Aug. 19.	Aug. 19
Aug. 25	North Carolina	Aug 12
Aug. 25	Terre Haute, Ind.	Aug. 19
Aug. 25	Illinois	Aug 19
Aug. 25	Brooklyn, N. Y	Aug 19
Aug. 25	New York, N. Y.	Aug. 19
Aug. 26	New York, N. Y.	Aug. 19
Aug. 26	Elkins, W Va	Aug. 12
Aug. 26	Austin, Minn.	Aug. 19
Aug. 26	Oakhurst, N. J. Adv. Aug. 12 and 19	Aug. 19
Aug. 26	Sinton, Tex.	Aug. 19
Aug. 27	Troy, Kan.	Aug. 5
Aug. 27	Frederick, Md.	Aug. 19
Aug. 29	North Bergen, N. J.	Aug. 5
Aug. 30	Richfield, Minn.	Aug. 19
Aug. 30	Camden, N. J. Adv. Aug. 19.	Aug. 19
Aug. 30	Princeton, W. Va.	Aug. 19
Aug. 30	Eudora, Ark	Aug. 19
Aug. 31	Long Branch, N. J. Adv. Aug. 12 and 19.	Aug. 19
Aug. 31	New Jersey Adv. Aug. 12 and 19.	Aug. 19
Aug. 31	Columbus, O.	Aug. 19
Aug. 31	South Dakota	Aug. 19
Sept. 1	Wilson, N. C.	Aug. 12
Sept. 1	Madison, S. D.	Aug. 19
Sept. 1	Valleyfield, Que.	Aug. 19
Sept. 1	Hughesville, Pa.	Aug. 19
Sept. 3	Olathe, Kan.	Aug. 5
Sept. 3	Jourdanton, Tex.	Aug. 19
Sept. 4	Ft. Wayne, Ind.	Aug 19
Sept. 6	Indiana	Aug. 19
Sept. 7	Indiana	Aug. 19
Sept. 7	Greenfield, Ind.	Aug. 12
Sept. 7	Aitkin, Minn.	Aug. 12
Sept. 8	Cottonwood Falls, Kan.	Aug. 12
Sept. 9	Dodge City, Kan.	Aug. 19
Sept. 10	Shakopee, Minn.	Aug. 19
Sept. 14	Fergus Falls, Minn.	Aug. 19
Sept. 14	Charleston, W. Va.	Aug. 19
Sept. 14	Garnett, Kan.	Aug. 19
Sept. 21	St. George, S. C.	Aug. 12

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Aug. 23	Clinton, Ia.	Aug. 19
Aug. 24	Cedar, Minn.	Aug. 12
Aug. 25	St. John, N. B.	Aug. 12
Aug. 26	Marengo, Ia.	Aug. 19
Aug. 28	Raymond, Ill.	Aug. 19
Sept 3	Marshalltown, Ia.	Aug. 19
Sept. 10	Corsica, S. D. Adv. Aug. 19.	Aug. 19

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Aug. 15	Port Arthur, Ont.	July 22
Aug. 17	New Orleans, La.	Aug. 5
Aug. 24	Spring City, Pa.	Aug. 12
Aug. 31	New Orleans, La. Adv. Aug. 19.	Aug. 19
Sept. 1	Hutchinson, Kan.	Feb. 19
Sept. 15	Ossining, N. Y. Adv. Aug. 19.	Aug. 19

BUILDINGS

Bids Close		See Eng. News-Record
Aug. 23	Buffalo, N. Y.	Aug. 19
Aug. 23	Dickinson, N. D.	Aug. 19
Aug. 23	Brooklyn, N. Y.	Aug. 12
Aug. 24	Lincoln, Kan.	Aug. 12
Aug. 24	New York, N. Y.	Aug. 19
Aug. 24	Attleboro, Mass.	Aug. 19
Aug. 25	Lakewood (Cleveland P. O.), O.	Aug. 12
Aug. 26	Urbana, O.	Aug. 12
Aug. 26	Ottawa, Ont.	Aug. 12
Aug. 26	Brooklyn, N. Y.	Aug. 19
Aug. 26	Prospect, O.	Aug. 19
Aug. 26	Newton, Kan.	Aug. 19
Aug. 27	London, Ont.	Aug. 19
Aug. 28	Auburn, Me.	Aug. 19
Aug. 30	Petersburg, Ind.	Aug. 12
Aug. 30	McKeesport, Pa.	Aug. 19
Aug. 31	Manchester, N. H.	Aug. 12
Sept. 1	Cedar Rapids, Ia.	Aug. 5
Sept. 2	Jeanette, Pa.	Aug. 12
Sept. 3	Ft. Wayne, Ind.	July 29
Sept. 3	Ollie, Ia.	Aug 12
Sept. 7	Marmarth, N. D.	Aug. 19
Sept. 7	Windsor, Conn.	Aug. 19
Sept. 8	Wash., D. C.	Aug. 19
Sept. 10	West Hartford (Hartford P. O.), Conn.	Aug. 19
Sept. 15	Denver, Col.	Aug. 12
Sept. 15	Denver, Col.	Aug. 5

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Aug. 23	Stern Wheel Steel Towboat Hull—Vicksburg, Miss.	Aug. 5
Aug. 23	Remodeling Post Office — South Bend, Ind.	Aug. 5
Aug. 24	Canal—Caldwell, Idaho	July 15
Aug. 25	Heating System—Spec. 4189 —Mare Island, Cal.	Aug. 12
Aug. 25	Station, etc.—Fairport, O.	Aug. 5
Aug. 25	Steam Distributing and Condensate Return System — Spec. 4258—Hampton Rds, Va.	Aug. 5
Aug. 25	Repairing Wharf and Slips —Spec. 4260—Wash., D. C.	Aug. 19
Aug. 26	Return Flue Boilers—Memphis, Tenn. Adv. Aug. 5 to 19.	Aug. 5
Aug. 26	Steel Hull—Memphis, Tenn. Adv. July 29 to Aug. 19.	Aug. 5
Aug. 26	Dredging — Providence, R. I. Adv. Aug. 5 to 19.	Aug. 5
Aug. 26	Telephone Motor Generators —Washington, D. C.	Aug. 19
Aug. 27	Remodeling Post Office and Court House — Roanoke, Va.	Aug. 5
Aug. 27	Sewage Ejector—Del Rio, Tex.	Aug. 12
Aug. 30	Stern Wheel Steamboat — St. Louis, Mo.	Aug. 5
Aug. 30	School and Assembly Hall —Tahlequah, Okla.	Aug. 19
Aug. 31	Remodeling Post Office—Astoria, Ore.	Aug. 12
Aug. 31	Bridge—Wash., D. C.	Aug. 19
Aug. 31	Lumber Storehouse—Philadelphia, Pa. Adv. Aug. 19.	Aug. 19
Sept. 1	Mechanics Shop, Filling, Shell and Magazine House —Spec. 4121—Mare Island, Cal.	Aug. 19
Sept. 3	Post Office—Columbia, S. C.	Aug. 5
Sept. 4	Building, etc. — Ogden, Utah	Aug. 19
Sept. 15	Jetty—Jacksonville, Fla. Adv Aug. 19.	Aug. 19
Sept. 16	Jetty—New Orleans, La. Adv. Aug. 19.	Aug. 19
Sept. 25	Harbor Development—Spec. 4136—Great Lakes, I.	Aug. 19

MISCELLANEOUS

Bids Close		See Eng. News-Record
Aug. 23	Sludge Pump and Motor—Willmar, Minn.	Aug. 12
Aug. 23	Window Guards — Thiells, N. Y. Adv. Aug. 19.	Aug. 19
Aug. 23	Heating and Ventilating Apparatus—New York, N. Y.	Aug. 19

Bids Close		See Eng News-Record
Aug. 24	Road Materials—New York, N. Y.	Aug. 19
Aug. 24	Riprap—Cape May, N. J. Adv. Aug. 19.	Aug. 19
Aug. 26	Heating and Ventilating System—Wash., D. C.	Aug. 19
Aug. 31	Wharf—Owen Sound, Ont.	Aug. 12
Aug. 31	Railway Ties — Toronto, Ont.	Aug. 19
Sept. 2	Breakwater—Quaco, N. B.	Aug. 19
Sept. 2	Sluice Gates—Sacramento, Cal. Adv. Aug. 19.	Aug. 19
Sept. 3	Wharf—Notre Dame des Sept. Douleurs, Que.	Aug. 19
Sept. 3	Sanitary Equipment—Columbus, O.	Aug. 19
Sept. 6	Retaining Wall, etc.—Cleveland, O.	Aug. 12
Sept. 7	Dikes—St. Louis Mo.	Aug. 19
Sept. 9	Terminal—Buffalo, N. Y.	Aug. 12
Sept. 9	Terminal — Rouses Point, N. Y.	Aug. 12
Sept. 15	Street Paving, etc.—Philadelphia, Pa. Adv. Aug. 5 to 19.	Aug. 5
Sept. 22	Breakwater—Chicago, Ill. Adv. Aug. 19.	Aug. 19
Sept. 30	Transformers, etc.—Sacramento, Cal. Adv. Aug. 19.	Aug. 19

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. H., Peterboro—Peterboro Waterworks Co. plans to build extensions to waterworks system. Private plans.

S. C., Bamberg—City plans to improve water works system. About $25,000. Ryan Eng. Co., Columbia, engrs.

S. C., Blacksburg—See "Sewers."

Fla., Clermont—City voted $30,000 bonds to build water plant.

Ia., Vinton—City voted $45,000 bonds to build additions to waterworks system, electric light and power plant.

Kan., Eldorado—City voted $25,000 bonds to build new filter system for water plant. Engineer not selected.

Mo., Carthage—City sold $100,000 bonds to enlarge water and electric light plant. J. N. Marsh, treas.

Ark., Ft. Smith—City plans to improve waterworks system, to include 2-4 additional settling basins and equipment, 2 new boilers and 1 pumping engine. F. M. Smith, clk.

BIDS DESIRED

Miss., Tunica—Until Sept. 8, by city, building 100,000 gal. rein.-con. reservoir, triplex pumping unit and frame pumphouse. About $15,000. A. L. Dabney, Randolph Bldg., Memphis, Tenn., engr.

Mich., Owosso—Until Aug. 23, by B. K. Lucas, city clk., building 177 ft. concrete storage reservoir for waterworks system. Hoad & Decker, Ann Arbor, engs.; advertised in this issue.

Mich., Springwells—Until Sept. 1, by G. Jerome, village engr., 1331 Majestic Bldg., Detroit, furnishing labor and material for waterworks system, to include 5,000 ft. 6 in. pipe, 8 fire hydrants, valves, etc., to be connected with Detroit city water system. Noted April 22.

Minn., Benson—See "Sewers"

Minn., Freeport—Until Aug. 27, by F. Rieland, city clk., furnishing 60,000 gal. steel water tank. Bradley Eng. Serv., St. Cloud, engr.

Sewers

PROPOSED WORK

S. C., Blacksburg—City had plans and estimates made by H. Beebe, engr., Spartanburg, for sewerage and waterwork systems. About $125,000.

Ky., Louisa — City soon receives bids building sanitary sewerage system. About $50,000. W. A. Smith, Huntington, W. Va., engr.

Wis., Cedarburg—City having plans prepared excavating and laying sewers in 6.2 mi. of various streets, also building sewage pumping station and 2 disposal tanks, involving 33,021 ft. 8-12 in. vitr. pipe, 207 cu.yd. concrete, 105 manholes, etc. About $100,000. W. G. Kirchhoffer, 31 Vroman Blk., Madison, engr. Noted May 6.

Mo., Joplin — City plans to build new storm and sanitary sewers, also repair and extend present sewers. About $291,500. J. F. Osborne, mayor.

BIDS DESIRED

R. I., Pawtucket—Until Aug. 31, at office of G. A. Carpenter, city engr., building 2,100 ft. concrete sewer pipe, 60 in. diam. and 18 ft. deep; advertised in this issue.

N. Y., Brooklyn — Until Aug. 25, by E. Riegelmann, boro. pres., furnishing labor and material building sewer in East 37th St. from Ave. I to proposed Marginal St. south of Long Island R.R., East 15th St. from end of existing sewer about 380 ft. south of Ave. J to Ave. K, sewer basin at southwest corner of 47th St. and Old New Utrecht Rd., Benson Ave. at north and east corners of Bay 11th St., 19th Ave. at easterly corner of 67th St., Sheepshead Bay Rd. at northwest corner of Voorhis Ave.

N. Y., Long Island City—Until Aug. 23, by M. E. Connolly, pres. Queens Boro., building sewer and appurtenances in Arcadia Ave. from point 150 ft. north of 16th Ave. to point 150 ft. south, Broad St. from Maspeth to Clinton Aves., Howland St. from Ditmars to Wolcott Aves., Mueller St. from Hull to Borden Aves.

N. Y., St. George, S. I.—Until Aug. 23, by C. D. Van Name, pres. Richmond Boro., building temporary sanitary sewers with necessary appurtenances in Seaside Blvd. from Sea Ave. to point 3,000 ft. west of Sand Lane, and through easement westerly from this point to easement in extension of Cromwell Ave., in an easement in Cromwell Ave. and its southerly extension from existing sewer about 2,120 ft. north of Southfield Beach R.R. to point 135 ft. south of railroad, building outlet sewer through an easement in the extension of Cromwell Ave. from point 185 ft. north of Southfield Beach R.R. to point 130 ft. north of main high water line.

N. Y., St. George, S. I.—Until Aug. 26, by C. D. Van Name, pres. Richmond Boro., building temporary sanitary sewer with necessary appurtenances in Grand View Ave. from Richmond Terrace to Anderson Pl.

D. C., Washington — Until Sept. 7, by Dist. Comrs., Dist. Bldg., constructing 1,000 lin.ft. concrete sewer in various streets.

Ind., Muncie—Until Aug. 30, by Bd. Pub. Wks., building main trunk line sewer. About $370,000. S. H. Weber, city engr.; advertised in this issue.

Minn., Benson—Until Aug. 23, by O. H. Strand, city clk., building extensions to sewerage and water systems, involving 7,654 ft. 12 in. sewer pipe, 2,000 ft. Class "B" c.i. pipe, etc. About $25,000. Bradley Eng. Service Co., St. Cloud., engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Conn., West Haven (New Haven P. O.)—City let contact building storm sewers in various streets, to Dwyer & Mannix, 335 Shelton Ave., New Haven. About $25,000.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., let contract building sewers and appurtenances in Carona Ave. and Hallett St., to Green Contg. Co., 734 Vernon Ave., Astoria, $13,353 and $7,347 respectively; Rust St., to F. L. Piano, $37,500; Meechman St. and Maure Ave., to T. Welsh, $7,052 and $17,425 respectively; Woodmere Pl., Manor and Greenwood Aves., to Kennedy & Smith, 94 Main St., Flushing, $160, $1,000 and $1,094 respectively. Noted July 1.

N. Y., New York—H. Bruckner, pres. Bronx Boro., received lowest 3 bids Aug. 10, building sewer and appurtenances in Leland, Wood and East Tremont Aves., from A. F. DelBalso, $33,245, Norton Eng. & Constr. Co., $35,616, McLoughlin & Buckley, $36,415. Noted Aug. 5.

★O., Cleveland—City let contract building sewers in Miles Ave. from old to new city limits, to W. McDowel & Son, 10319 Miles Ave., $30,879; Nelson Ave. from East 99th to East 112th Sts., to A. J. Galvin, 343 The Arcade, $28,200; Ferris Ave. from East 123rd to East 131st Sts., to Stevens & McKeon, 343 The Arcade, $5,980. Work involves 1,660 ft. 4 in. egg shaped rein.-con. and 3,110 ft. 12-20 in. vitr. pipe, 1,800 ft. 2 in. B and C tile blocks, etc. Noted Aug. 12.

★O., Dayton — Montgomery Co. let contract building Oakwood Heights sewer to Gessner Co., Toledo. About $228,000.

★Mich., Detroit—Dept. Pub. Wks. let contracts furnishing labor and material (except manholes, rings and covers) building Lateral Sewer 3,280 between Gratiot, Roseberry, and Promenade Sts. and alley north of Roseberry St., also 3,306 between Connors, Lenox, Debuck and Forest Sts., to Western Constr. Co., 1208 Ford Bldg., $[illegible] 826 and $18,900 respectively; 3,304 [illegible] tween Fisher, Crane, Georgia and Ma[illegible] Sts., to A. H. Haynes, 70 Davenport A[illegible] $4,550; 3,313 between Jos. Camp[illegible] Mitchell, Carpenter and Halleck Sts., Oakwood Constr. Co., 165 Fort [illegible] $6,755; 3,315 between Riopelle and [illegible] quindre Sts., and point 1,300 ft. so[illegible] Davison St. to Davison St., to R. D. Ba[illegible] 485 Elmhurst St., $22,500. Noted Aug. [illegible]

★Minn., Lake Benton—Village let co[illegible] tract building sewerage system to Paston Constr. Co., 510 Lyceum Bldg., Dulu[illegible] $104,942.

Bridges

PROPOSED WORK

W. Va., Remney—Comrs. Hampshire Co. rejected bids July 27, building steel stiffen[illegible] truss and new plank floor on 310 ft. sus[illegible] pension bridge over south branch of Po[illegible] mac River, between here and Springfie[illegible] R. P. Monroe, co. engr. Noted July 22.

N. Y., Mt. Vernon—Until Sept. 3, by Cit[illegible] of Yonkers and Mt. Vernon and Bron[illegible] Parkway Comn., at office of Bronx Park[illegible] way Comn., West Pondfield Rd., Bronxvill[illegible] completing Broad St. Viaduct crossing New York Central R.R. tracks and Bronx River between here and Bronxville; advertised in this issue.

New Jersey—Until Aug. 31, by State Highway Comn., Trenton, building bridges on State Highway 2, Roebling-Bordentown, Burlington Co. A. L. Grover, ch. clk. C. A. Mead, 790 Broad St., Newark, bridge engr. H. D. Robbins, Broad St. Bank Bldg., Trenton, div. engr.; advertised in this issue. Noted July 8.

Pa., Ebensburg—Until Aug. 30, by H. T. Jones, controller Cambria Co., building concrete and steel bridge, over Little Conemaugh River, between Franklin and East Conemaugh Boroughs, 21 ft. wide. About $100,000. H. F. Dorr, Trust Bldg., co. engr. A. A. B. Curry, Schnabel Bldg., Johnstown, engr.

W. Va., Moundsville—Until Sept. 3, by J. E. Chase, clk. Marshall Co., building following bridges; one 25 ft. span over Hogg Run, and one 25 ft. span over Fish Run Clay Dist.; one 30 ft. span over forks of Grave Creek, Cameron Dist. near Cameron; one 100 ft. or two 70 ft. spans over Fish Creek, Liberty Dist., near Bellton.

Illinois—Until Aug. 25, by Dept. Pub. Wks. and Bldgs., Springfield, building bridges on East Moline-Princeton Highway, Federal Aid Project 20, Sect. 3 B, 2 concrete bridges, each to have one 45 ft. span, involving 452 cu.yd. concrete, 52,310 lb. steel and 660 bbl. cement; Sect. 4 B, 1 steel bridge, one 80 ft. span, 193.1 cu.yd. concrete, 57,470 lb. steel, 282 bbl. cement, etc.; Sect. 4 C, 4 concrete box culverts, one 5 x 6 ft., two 8 x 12 ft. and one 7 x 12 ft., 284.5 cu.yd. concrete, 27,120 lb. steel and 415 bbl. cement; Sect. 5 B, 2 concrete bridges each to have one 24 ft. span, 212.7 cu.yd. concrete, 22,930 lb. steel, 311 bbl. cement, etc.; Sect. 6 B, 1 steel bridge, one 120 ft. span, 152.8 cu.yd. concrete, 106,600 lb. steel, 283 bbl. cement, etc., all in Henry Co.; Sect. 7 B, 2 concrete bridges, one 20 ft. and one 45 ft. spans, Henry and Bureau Counties, 298.2 cu.yd. concrete, 33,870 lb. steel and 436 bbl. cement; Sect. 8 B, 129.1 cu.yd. concrete, 11,860 lb. steel and 189 bbl. cement; Sect. 10 B, bridge repairs, 89.4 cu. yd. concrete, 5,320 lb. steel and 127 bbl. cement, both in Bureau Co.; Monmouth-Galesburg Highway, Federal Aid Project 21, Sect. 2 B, 2 concrete bridges, one 30 ft. and one 50 ft. spans, Warren Co., 476.7 cu.yd. concrete, 53,705 lb. steel, 696 bbl. cement, etc.; Vandalia-Cairo Highway, Federal Aid Project 14, Sect. 23B, 2 steel bridges, each to have 90 ft. span, 1,739 cu.yd. concrete, 34,960 lb. steel, 733 bbl. cement, Sect. 23 C, 3 concrete bridges, one 20 ft. and nine 26 ft. spans, 183,880 lb. steel, 1,807 bbl. cement, etc., both in Fayette Co.; Natl. Highway, Federal Aid Project 9, Sect. U, 1 steel bridge, two 150 ft. spans, 1,887.6 cu.yd. concrete, 1 steel and concrete bridge, Sect. U 1, one 6 ft. and ten 26 ft. spans, Sect. U 2, 2 concrete bridges, seven 26 ft. spans. C. Older, ch. highway engr.

Tex., Jasper—Until Aug. 24, by C. C. Brown, judge Jasper Co., building 1,600 ft. bridge over Angelina River, 16 ft. roadway, to have one 150 ft. steel span and two 75 ft. spans on concrete piers and wooden pile trestle approaches. Alternate bid on two 150 ft. steel spans on rein.-con. piers and wooden pile trestle approaches. Cost $54,057 and $50,206 respectively. C. P. Hunter, Jasper, co. engr. Noted Aug. 12.

Wash., McKenna—McKenna Lumber Co. receiving bids building 200 ft span bridge advertised in this issue.

Bridges (Continued)

Oregon—Until Aug. 24, by State Highway Comn., Salem, building 5 wooden bridges on John Day River Highway, Grant Co., involving 715 cu.yd. excav., 15 cu.yd. Class "A" and 345 cu.yd. Class "B" concrete, 6,400 lb. metail reinforcing, 224 lin.ft. wooden trestle, four 40 ft. and two 105 ft. wooden trusses; 1 bridge over Haystack Creek on John Day River Highway, Wheeler Co., 80 cu.yd. excav., 30 cu.yd. Class "B" concrete, 40 lin.ft. wooden trestle and one 40 ft. wooden truss. H. Nunn, state highway engr. Noted Aug. 5.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Conn., Bristol**—City let contract building bridge on North St., to United Contg. Co., Meriden, on Jacobs St., to A. DiMarco, 221 Berlin Ave., Southington. About $25,000.

★**Fla., Milton**—State Rd. Dept., Tallahassee, let contract building 388 ft. bridge with 18 ft. road and 6 ft. walk, over Blackwater River, here, to Pensacola Shipbuilding Co., Blount Bldg., Pensacola. Noted Jan. 1.

★**O., Columbus**—Franklin Co. let contract building 42 ft. concrete bridge with 22 ft. roadway over Rocky Creek on Granville Rd., to O. C. Swickart, New Albany, $4,849; 833 ft. steel bridge with 30 ft. roadway and 6 ft. walk on each side over Scioto River, on Greenlawn Ave., to I. I. Smith, Richmond, Ind., $436,987. Noted June 24.

★**Illinois**—State Highway Dept., Springfield, let contracts building bridges on Federal Aid Project 16, Sect. 15 B, Jefferson Co., Sect. 16 B, Jefferson and Wayne Counties, Sect. 18B, Wayne Co., to C. F. Edwards, Edwardsville, $50,000; Federal Aid Project 19, Sects. 18 B and 19 B and C, Stephenson Co., to Ferguson Constr. Co., 1033 North 2nd St., Rockford, $9,034, $16,267 and $24,273 respectively. Noted Aug. 5.

Wis., Fond du Lac—Bd. Pub. Wks. received bids Aug. 6, building 107 ft. concrete or steel bridge, on Scott St., from Stein Constr. Co., 204 Grand Ave., Milwaukee, (concrete) $82,500; Vulcan Mfg. Co., 490 North Main St., (steel) $89,838; Goffin & Gehri, 270 Sheboygan St., (concrete) $94,756. Noted July 29.

Tex., Groesbeck—Limestone Co. received bids building several 20 ft. concrete slab bridges, 15 ft. roadway, one 60 ft. and one 70 ft. steel spans, and other bridges and culverts, various lengths, from Tibbetts Constr. Co., Mineral Wells, $105,422; Womack Constr. Co., Sherman, $109,278; Wear, Thomas & Ratcliff, Rogers, $110,540. Work involves 1,000 cu.yd. dry and 150 cu.yd. wet structural excav., 73,200 lb. structural steel 160,000 lb. steel bars, 1,300 cu.yd. Class "A" and 1,200 cu.yd. Class "B" concrete.

★**Ariz., Florence**—Pinal Co. Highway Comn. let contract building two 140 ft. clear span rein.-con. bridges, on Ray Kelvin Highway, to De Waard & Cobham, $49,677, not including engineering and contingencies. Work involves 187 cu.yd and 198 cu.yd. dry excav., at $2.50 per cu.yd., 234 cu.yd. and 135 cu.yd. wet excav., $6., Class "C" and "A" concrete in foundation, $18 and $21 respectively, Class "A" concrete in superstructure, $25, reinforced steel, $0.12. Noted July 15.

Streets and Roads

PROPOSED WORK

New Hampshire—State Highway Comn., Concord, plans to build Southside Rd., Portsmouth. About $25,000.

Mass., Palmer—Rd. Comrs. soon let contract building 4,200 ft. cement, concrete and bituminous macadam highway. About $30,000.

New York—F. S. Greene, state highway comr., Capitol, Albany, received no bids Aug. 10, completing and repairing Rd. 385, Albany Co., and 8.85 mi. Rd. 1496, Essex Co. Noted Aug. 5.

Pa., Warrior Run (Peely P. O.)—Boro. voted $75,000 bonds to pave various highwals.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, plans to build roads in following counties; 2 mi. Nat. Pike toward Vale Summit, 1.6 mi. on Legislative Rd. 1.6 mi. from Barrellville to Pennsylvania Line, Allegany Co.; 3.5 Mountain Rd., Anne Arundel Co., 2 mi. Herford Rd., 2.3 mi. Phila. Rd., 1 mi. Falls Rd., 1 mi. Park Heights Ave. and 1 mi. North Point Rd., Baltimore Co.; 1 mi. Manchester Rd., 3.5 mi. New Windsor Rd., 1 mi Hanover Rd., 1.5 mi. Union Bridge Rd., 2.5 mi. Warfieldsburg Rd. and 1 mi. Oakland Mills Rd., Carroll Co.; 2.5 mi. Grove to Fowling Creek, 1.5 mi. Longs Schoolhouse to Hillsboro, 1 mi. Ridgeley to Bridgetown, 1.5 mi. Goldsboro to Delaware Line north, Caroline Co.; 2 mi. Eldorado-Federalsburg Rd., .3 mi. adjacent to Hurlock, Dorchester Co.; 2 mi. Friendsville to Kaeses Mill, 2 mi. Oakland-Hutton Rd., Garrett Co.; 3 mi. Phila. Rd., 2 mi. Black Horse to Jarrettsville, Harford Co.; 2.8 mi. Still Pond Sta. to state rd., 3.2 mi. Galena-Millington Rd., Kent Co.; 4 mi. Beallsville to Dickerson, 3.2 mi. Rockville to Hunting Hill, 2.8 mi. Gaithersburg, Muncaster Hill, 3 mi. Sligo-Colesville, Montgomery Co.; 2 mi. Ingleside-Millington, 2 mi. Stevensville-Love Rd., Queens Annes Co.; 5 mi. Morganza to Colton, St. Marys Co.; 5 mi. end of state line to Pocomoke, Somerset Co.; 3 mi. Easton-Claiborne Rd., Talbot Co.; 3.6 mi. DuPont Blvd. connection at Berlin, 2 mi. Snow Hill-Stockton, 2 mi. Pocomoke-Stockton, Worcester Co.; 2 mi. state road from Willards to Powellville, 4 mi. Quantico to Royal Oak, Wicomico Co. About $2,500,000. J. N. Mackall, state highway engr.

W. Va., Spencer—Comrs. Roane Co. received no bids Aug. 5 building cement-concrete surface on 3 mi. Spencer-Walton Rd., Federal Aid Project 85, 16 ft wide. Noted July 22.

W. Va., Wheeling—Comrs. Ohio Co. plan to pave 2 mi. National Rd., vitr. brick on concrete base. About $300,000. W. O. McCluskey, Jr., co. engr.

N. C., Hertford—Comrs. Perquimans Co. had surveys made by Carolina Eng. Co., engrs., 412 Southern Bldg., Wilmington, for building 15 mi. hard surface road.

Fla., Haines City—City voted $140,000 bonds to improve various streets.

Ohio—State Highway Dept., Columbus, plans to build roads in the following counties:

Montgomery Co., 3.25 mi. Germantown Pike between Germantown and Dayton, rock asphalt or concrete.

Clermont Co., 1.51 mi. Cincinnati-West Union Rd., macadam.

Huron Co., 3.11 mi. Columbus-Sandusky Rd. between Seneca Co. line and south line of Sherman Twp., brick.

Tuscarawas Co., 4.04 mi. Newcomerstown and Coshocton Rd. between West Lafayette and Tuscarawas Co. line, brick or concrete.

Richland Co., 3.301 mi. Mansfield-Norwalk Rd. between Mansfield and Shenandoah, bituminous or concrete.

Brown Co., 3.24 mi. Milford-Hillsboro Rd. between Fayetteville and Hillsboro, macadam.

Highland Co., 2.24 mi. Hillsboro-Washington Rd. between Leesburg and Fayette Co. line, macadam.

Crawford Co., 4.08 mi. Bucyrus-Upper Sandusky Rd. between Bucyrus and Upper Sandusky, asphalt or brick. Federal Government will appropriate toward cost.

O., Columbus—City rejected bids received Aug. 3, paving alley west of Delaware Ave. from 1st to 2nd Aves., alley north of Frambes Ave. from Waldeck to Indianola Aves. Ludlow St. from Gay to Chestnut Sts., alley west of Ohio Ave. from Mound to Fulton Sts., Pearl St. from Chittenden to 13th Aves., alley west of 17th St. from Bryden Alley to Rich St., alley north of Vermont Pl. from alley west of Michigan Ave. to Perry St. Work may be readvertised. Noted Aug. 12.

Mich., Detroit—City plans to pave following streets with sheet asphalt on 8 in. concrete base, with Berea, Medina or Amherst curb, alleys to have 1 course concrete with 2 x 6 in. retaining plank; Anderson St. from Charlevoix to Mack Aves., Boston Blvd. from Linwood to Dexter Blvds., Center Line St. from Harper to Erbie Sts., Chapin St. from Crane to Rohns Sts., Dix Ave. from Carson St. to city limits. Ellery St. from Canfield to Garfield Sts., Ellery St. from East Grand Blvd. to Harper Ave., Gladstone St. from Lawton St. to Dexter Blvd., Manistique St. from Kercheval to Waterloo Sts., Meldrum St. from Mack Ave. to Benson St., St. Clair St. from Shoemaker to Harper Aves., Sturtevant St. from 12th St. to Pere Marquette right-of-way, alleys between Beniteau, Fairview, Charlevoix and Goethe Sts., alley between Harnor Court, Lee Pl., Byron and Pingree Sts., alley between Coplin, Lakeview, Jefferson and Kercheval Aves., alley between Drexel, Lenox, Jefferson and Kercheval Aves., alley between Dubois, Chene, Frederick and Kirby Aves., alley between Forsythe, 4th, Stanley and Holden Sts., alley between Lillibridge, Fairview, Edlie and Jefferson Aves., alley between Merrill, Greenfield, Delaware and Seward Sts., alley between Edlie St., Montclair, Le May and Jefferson Aves., alley between Moran, Ellery, Leland and Alexandrie Aves., alley between Woodward, Monroe, Campus and Gratiot Aves. C. W. Hubbell, city engr.

Ill., Moline—City soon receives bids laying 18,953 lin.ft. concrete sidewalks. About $25,654. A. Anderson, clk.

Wis., Hartford—City plans to grade and macadamize 11.5 blocks McKinley St., 18-20 ft. wide. W. Radke, clk.

Minn., Preston—Fillmore Co. plans to gravel 7 mi. State Rds. 1 and 6. About $34,296. Federal Government asked to appropriate toward cost. W. Dunbar, Preston, engr.

Minn., St. Paul—Ramsey Co. receives bids about September building 6 mi. St. Paul-Duluth Highway from city limits to White Bear Lake, also 3.5 mi. Rice St., both 24 ft. wide, concrete base with concrete or asphaltic concrete surface. About $340,000 and $175,000 respectively. R. R. Godfrey, Court House, engr. Noted July 15.

Minn., St. Paul—City and Ramsay Co. receive bids in fall surfacing 1.5 mi. Oakdale Ave. from south city limits to Concord St., also paving 5.5 mi. Point Douglas Rd. from Hastings Ave to south county line, both concrete. About $60,000 and $240,000 respectively. O. Claussen, city engr. R. D. Godfrey, Court House, co. engr.

Minn., Wabasha—Wabasha Co. plans to gravel 15 mi. State Rd. 1, 24 ft. wide, about $75,767. Federal Government asked to appropriate toward cost. C. M. Matthies, Wabasha, engr.

Kan., Concordia—Cloud Co. had plans prepared grading, paving and building bridges and culverts on 40 mi. of Midland Trail, 18 ft. wide. Tuttle, Ayres & Woodward, Reliance Bldg., Kansas City, Mo., engrs.

Tex., Center—Shelby Co., Rd. Dist. 5, voted $70,000 bonds to build section of Highway 22; Rd. Dist. 3, $350,000 bonds, to improve Highways 8 and 22; Rd. Dist. 6, $100,000 bonds to improve 8 mi. of Highway 8-A. J. L. King, co. judge. T. H. Dillon, co. engr.

Tex., Montague—Montague Co. having plans prepared grading, surfacing and draining 4.117 mi. Highway 2D from Ringold to Red River, 16 ft. wide. About $48,500. J. R. Hill, Bowie, co. engr.

Tex., Olton—Lamb Co. having plans prepared grading, surfacing and draining 33.2 mi. Highway 7 from Hockley to Bailey Co., 16 ft. wide, involving 175,186 lin.ft. road machine work, 573 cu.yd. Class "A" concrete, 6,000 cu.yd. clay surfacing, 68,400 lb. reinforcing steel, 33,900 cu.yd. earth and 495 cu.yd. rock excav. About $66,518. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Tex., Quitman—Wood Co. had plans prepared surfacing 16 mi. Jim Hogg Highway from here to north county line, 12 ft. wide, involving 25,024 cu.yd. gravel. About $110,106. S. D. Davis, Quitman, co. engr.

BIDS DESIRED

N. Y., Brooklyn—Until Aug. 25, by E. Riegelmann, boro. pres., regulating and repaving with asphalt on concrete foundation roadway of Bedford Ave. from Empire Blvd. to Flatbush Ave. with permanent asphalt. Ralph Ave. from Bway. to Macon St., with permanent Grade 1 granite, on 6 in. concrete foundation, Flatbush Ave. from Park Plaza to point 454 ft. north of Empire Blvd., regulating, grading, curbing and laying sidewalks on East 7th St. from Foster Ave. to Ave. H, East 17th St. from Ave. L to Ave. M, Mansfield Pl. from Ave. N to Kings Highway, 64th St. from New Utrecht to 15th Aves., regulating and paving with permanent asphalt on 6 in. concrete foundation, East 7th St. from Foster Ave. to Ave. H, East 10th St. from Ave. L to Ave. M, 56th St. from 14th to 15th Aves., regulating, grading, curbing, laying sidewalks and building bulkhead on Warehouse Ave. from Surf Ave. to point 600 ft. south, regulating, grading, curbing, laying and relaying sidewalks on 20th Ave. from 80th to 82nd Sts., furnishing and delivering 6,000 cu.yd. asphalt sand.

N. Y., Long Island City—Until Aug. 23, by M. E. Connolly, pres. Queens Boro., regulating and paving with bituminous macadam, Ash Ave. from Parsons Ave. to Bowne St., regulating and repaving with asphaltic concrete on prepared macadam and concrete foundation Bway. between 30th St. (Flushing) and 10th St. (Bayside) and between Main St. (Douglaston) and city line (Little Neck), with asphalt blocks on concrete foundation, between curbs and outside rails and with improved granite blocks on concrete foundation between outer rails, Metropolitan Ave. from Flushing Ave. to Helen St., regulating and grading Howland St. from Wolcott to Ditmars Aves., Hallett St. from Ditmars to Wolcott Aves., Opdyke St. from Alburtis to Tieman Aves.,

Streets and Roads (Continued)

from Woodside Ave. to right of way of Long Island R.R., curbing and laying sidewalks and crosswalks from Woodside to Stryker Aves., regulating, grading, curbing and laying sidewalks and paving with permanent sheet asphalt on concrete foundation, 97th St. from Jamaica to Atlantic Aves., regulating, recurbing and paving with permanent sheet asphalt on 6 in. concrete foundation, Stockholm St. from Onderdonk to Seneca Aves., regulating, grading, curbing, building 2 receiving basins and appurtenances at Metropolitan Ave.

N. Y., St. George, S. I.—Until Aug. 23, Park Bd., at office of Dept. Parks, Municipal Bldg., furnishing labor and material regulating and covering with new surfacing material, Jasper Oval Playground.

N. Y., New York—Until Aug. 25, by H. Bruckner, pres. Bronx Boro., repaving with sheet asphalt on concrete foundation, roadway of Claremont Parkway from Webster to Park Aves. and from Washington to 3rd Aves., and setting curb where necessary.

N. Y., New York—Until Aug. 24, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with sheet asphalt on concrete foundation, roadway of 48th St. from 7th Ave. to Bway., 49th St. from 7th Ave. to Bway., with 3 in. asphalt block, 48th St. from 7th Ave. to Bway, 49th St. from 7th Ave. to Bway., with granite block, 2nd Ave. from 61st to 63rd Sts., 13th Ave. from Gansevoort to Bloomfield Sts., Bloomfield St. from 10th to 13th Aves., Gansevoort St. from West St. to 13th Ave., 153rd St. at intersection of 7th Ave., with wood block, Hudson St. from Jay St. to point 174 ft. N., regulating, curbing, recurbing, flagging, reflagging and paving West 189th St. from Audubon to St. Nicholas Aves., 9th Ave. from northerly side of 207th St. to southerly side of 209th St., repairing sewer in East 23rd St. between 1st Ave. and Ave. A.

New Jersey—Until Aug 31, by State Highway Comn., Trenton, building State Highway Route 1, Sect. 9, Milton Ave., Rahway to Rahway-Linden Line; Sect. 10, Rahway-Linden Line to Roselle Boro.; Sect. 11, Roselle Boro. to Elizabeth City Line, all in Union Co. A. L. Grover, clk. R. Mullins, 790 Broad St., Newark, engr.; advertised in this issue.

N. J., Camden—Until Aug. 30, by Bd. Freeholders Camden Co., improving Clements Bridge Rd., Center Twp., Hadden Heights and Barrington Boroughs. F. W. George, clk; advertised in this issue.

N. J, Long Branch—Until Aug. 31, by Bd. Comrs., paving and building retaining wall on Ocean Ave. E. F. Lawyer, clk.; advertised in this issue.

N. J., Oakhurst—Until Aug. 26, by Ocean Twp., paving Lake Ave. (or Ocean Rd.). J. F. Woolley, chn. W. B. Jeffrey, clk. J. W. Seaman, 191 Bway., Long Branch, engr.; advertised in this issue.

Pa., Hughesville—Until Sept. 1, by C. E. Cadman, pres. Hughesville Council, Grange Natl. Bank Bldg., paving and curbing various streets; Contr. 1, involving 865 sq.yd. rein.-con. paving, and 2,600 ft. monolithic rein.-con. curbing; Contr. 2, 6,400 ft. concrete curbing; Contr. 3, 2,600 ft. concrete curbing, including expansion joints, also bid without expansion joints. About $40,000.

Maryland—Until Aug. 24, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building .31 mi. state highway through to Pocomoke (Contr. WO.—21), also .19 mi. state highway through to Snow Hill (Contr. WO—22). J. N. Mackall, chn.; advertised in this issue.

Md., Frederick—Until Aug. 27, by Comrs. Frederick Co., resurfacing 1.52 mi. State Aid Highway from Monrovia toward Hyattstown, 16 ft. wide, stone or amiesite on reconstructed stone base. J. N. Mackall, 601 Garrett Bldg., Baltimore, engr.

W. Va., Charleston—Until Sept. 14, by Comrs. Kanawha Co., grading and masonry work on 9,000 ft. of road from Elk View to Little Sandy. L. C. Massey, clk.

W. Va., Princeton—Until Aug. 30, by L. G. Bowling, clk. Mercer Co., grading 1 mi. road from Flat Top Yards to mouth of Abbs Valley, 12 ft. wide. E. C. Barton, co. engr.

O., Columbus—Until Aug. 31, by Comrs. Franklin Co., grading, draining and paving 1.17 mi. Hess Rd., 18 ft. wide, Marion Twp., rein.-con., cost $50,920; grading and paving 321 ft. Sullivant Ave. from Hague Ave. to corporation line, 24 ft. wide, rein.-con., $5,266. C. C. Lattimer, Court House, engr. Noted June 3.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Aug. 23, St. Joseph Co., South Bend, 14,264 ft. Turkey Creek Rd., Portage and Center Twps., concrete. C. Sedgwick, aud.

Sept. 6, Potter Co., Valparaiso, 2.77 mi. R. M. Phillips et al. Rd., also 2.29 mi. A. Hawkinson et al. Rd., Portage Twp.; 5.1 mi. B. F. Williams et al. Rd., Morgan and Pine Twps.; C. M. Sheffield et al. Rd., Washington Twp., all gravel. B. H. Kinne, aud.

Sept. 6, Washington Co., Salem, 19,316 ft. Salem and Delaney Creek Rd., also 13,326 ft. Dog Trot 2, Washington Twp.; 14,098 ft. Salem and Orleans 2 Rd., Vernon Twp.; 12,528 ft. Pekin and Borden Rd., Polk Twp. E. E. Batt, aud.

Sept. 7, Montgomery Co., Crawfordsville, 10,960 ft. G. Himes et al. Rd., Scott and Union Twps., gravel. W. McClelland, aud.

Sept. 7, Bartholomew Co., Columbus, 2,120 ft. road between Clifty and Hawcreek Twps., crushed rock. R. Henderson, aud.

Ind., Ft. Wayne—Until Sept. 4, by Comrs. Allen Co., grading, draining and pacing 7,837 ft. Pontiac St. and Bueter Rd., involving 5,733 lin.ft. 9-12 in. rein.-con., 24 ft. wide, also 2,104 lin.ft. 7-9 in. plain concrete 18 ft. wide. About $138,000. A. W. Grosvenor, Court House, co. surv.

Ind., Terre Haute—Until Aug. 25, by city, improving 1 mi. North 19th St., involving 20,100 sq.yd. paving, also 1,400 ft. North 25th St., 20 ft. wide, 3,400 sq.yd. paving, brick, concrete, asphalt and wood blocks. R. A. Koerner, city civil engr.

Illinois—Until Aug. 25, by Dept. Pub. Wks. and Bldgs., Springfield, improving East Moline-Princeton Highway, Federal Aid Project 29, .95 mi. Sect. 2A, 32 ft. wide, involving 7,350 cu.yd. excav., 22.8 cu.yd Class "A" concrete and 1,180 lb steel, 5.94 mi. Sect. 3A, 21 and 32 ft. wide, 46,896 cu.yd. excav., 542.5 cu.yd. Class "A" concrete, 43,608 lb. steel and 792 bbl. cement, .69 mi. Sect. 4A 32 ft. wide, 8,541 cu.yd. excav., 11.6 cu.yd Class "A" concrete 1.4 mi. Sect. 5A, 32 ft. wide, 11,325 cu.yd. excav., 23.8 cu.yd. Class "A" concrete and 1,420 lb steel, 1.64 mi. Sect. 6A, 32 ft. wide, 29,459 cu.yd. excav., 42.1 cu.yd. Class "A" concrete, and 3,140 lb. steel, all in Henry Co.; 4.34 mi. Sect. 7A, Henry and Bureau Counties, 32 ft. wide, 31,959 cu.yd. excav., 102.9 cu.yd. Class "A" concrete, 7,813 lb. steel and 150 bbl. cement; 1.57 mi. Sect. 8A, 32 ft. wide, 14,179 cu.yd. excav., 23.4 cu.yd. Class "A" concrete, 1,330 lb. steel, .89 mi. Sect. 10A, 21 and 32 ft. wide, 17,760 cu.yd. excav., 23.1 cu.yd. Class "A" concrete and 1,330 lb. steel, .21 mi. Sect. 11A, 32 ft. wide, 3,236 cu.yd. excav., 33.7 cu.yd. Class "A" concrete and 2,572 lb. steel, all in Bureau Co.; Monmouth-Galesburg Highway, Federal Aid Project 21, .9 mi. Sect. 2A, Warren Co., 19 and 30 ft. wide, 31,662 cu.yd. excav.; Kankakee-Dixie Highway, Federal Aid Project 22, .32 mi. Sect. 1A, Kankakee Co., 32 ft. wide, 575 cu.yd. excav., 31.2 cu.yd. Class "A" concrete and 1,913 lb. steel; Vandalia-Cairo Highway, Federal Aid Project 14, 3.09 mi. Sect. 3A, Jackson Co., 30 ft. wide, 25,000 cu.yd. excav., 207.1 cu.yd. Class "A" concrete, 12,700 lb. steel and 303 bbl. cement, 3.92 mi. Sect. 23A, Fayette Co., 32 ft. wide, 305,226 cu.yd. excav., 270.7 cu.yd. Class "A" concrete and 375 bbl. cement; Natl. Highway, Federal Aid Project 9, 1.64 mi. Sect. N, Fayette Co., 32 ft. wide, 46,443 cu.yd. excav., 30.4 cu.yd. Class "A" concrete, 875 bbl. steel and 45 bbl. cement.

Minn., Austin—Until Aug. 26, by Mower Co., improving 6 mi. Federal Aid Project 38, State Rd. 1, involving 8,400 cu.yd. graveling, etc. About $25,000. J. A. Myran, Slayton, engr.

Minn., Fergus Falls—Until Sept. 14, by Otter Tail Co., graveling 11,667 cu.yd. Federal Aid Project 159, also 10,135 cu.yd. Federal Aid Project 160, both 24 ft. wide. About $30,000 and $26,000 respectively. A. L. Flygare, Fergus Falls, engr.

Minn., Richfield (Minneapolis P. O.)—Until Aug. 30, by J. G. Goodspeed, town clk., 6600 Lyndale Ave., S., Minneapolis, laying sidewalks, curbs and gutters on south side of Diamond Lake Rd. from Lyndale Ave. east to Nicollet Ave. and north side from Nicollet Ave. west to intersection of village and city limits. About $25,000.

Minn., Shakopee—Until Sept. 10, by Scott Co., building 7 mi. Federal Aid Project 93, State Rd. 9, involving 6 acres clearing, 4 acres grubbing, 181,400 cu.yd. excav., 418,000 cu.yd. overhaul, 1,200 lin.ft. port culverts, 11,500 cu.yd. gravel surface and 3[illegible] cu.yd. concrete culverts. About $55,00[illegible] D. Childs, Shakopee, engr.

Kan., Dodge City—Until Sept. 9, by Fo[illegible] Co., paving 10.425 mi. Santa Fe Trail, w[illegible] brick Project 14, with necessary bridg[illegible] and culverts. About $600,000. R. C. Ha[illegible] Dodge City, engr.

Kan., Garnett—Until Sept. 14, by Anderson Co., grading, graveling and buildi[illegible] culverts on 7.597 mi. King of Trails Highway. About $240,000. J. C. Irons, Garnett, engr.

South Dakota—Until Aug. 31, by State Highway Comn., Elk Point, grading, draining and graveling 6.97 mi. Sioux Falls-Elk Point-Sioux City Rd., Federal Aid Project 64, 36 ft. wide, Union Co., involving 9[illegible] cu.yd. structure and 58,018 cu.yd. excav., 8,735 yd. sta. overhaul, 598 lin.ft. corrugated iron or concrete pipe culverts, 9[illegible] cu.yd. Class "A," 22 cu.yd. Class "B" and 35 cu.yd. Class "D" concrete, 11,076 lb. reinforcing and 20,504 lb. structural steel, 12,919 cu.yd. gravel surfacing and 1,292 cu.yd. clay binder; cost, $93,800; 10.93 mi. Elk Point-Beresford-Sioux Falls Rd., Federal Aid Project 66, 36 ft. wide, Union Co., involving 279 cu.yd. structure and 51,158 cu.yd. excav., 23,201 yd. sta. overhaul, 440 lin.ft. wooden guard rail, 1,394 lin.ft. concrete or corrugated iron pipe culverts, 138 cu.yd. Class "A" and 46 cu.yd. Class "B" concrete and 10,829 lb. reinforcing steel, etc. About $48,000. F. S. Peck, Pierre, state highway engr. Noted July 15.

S. D., Madison—Until Sept. 1, by city, paving Dist. 12, including Egan Ave., Dingman's Addition and Alley Dists. 2 and 3 in Blocks 4, 5, 8, 9, 15, 19, 20. Work involves 3,200 cu.yd. excav., 2,488 lin.ft. plain curbing, 2,488 lin.ft. comb curbing and guttering, 480 concrete headers, 480 steel corner bar, 9,570 sq.yd. surfacing, 1,090 cu.yd. grading and 3,273 sq.yd. concrete paving. About $45,000. C. A. Trimmer, Madison, engr.

Montana—Until Aug. 23, by State Highway Dept., Helena, building Federal Aid Project 121, Dawson Co., involving 3,164 cu.yd. excav., 25,300 sta. yd. overhaul, 16,691 sq.yd. paving, 51,470 lb. wire mesh, 13 c. i. rings and corners for catch basins, 10,501 cu.yd. Class "B" concrete, 1,008 lin.ft. 10 in. vitr. clay pipe, 2,071 cu.yd. washing coarse concrete, cost $80,000; Federal Aid Project 112, Fergus Co., 3,041 cu.yd. excav., 8,354 sq.yd. paving, 38,938 lb. reinforcing steel, 170 cu.yd. Class "A" and 405 cu.yd. Class "B" concrete in bridges, $40,000.

Ark., Eudora—Until Aug. 30, by Comrs. Sidewalk impvt. Dist. 2, building 82,910 sq.ft. concrete sidewalk on various streets. E. T. Cashion, secy.

Tex., Jourdanton—Until Sept. 3, by Comrs. Atascosa Co., grading, surfacing and building bridges and culverts on 13.47 mi. Highway 2 from Pleasanton to Bexar Co., 16 ft. wide, involving 10.3 mi. machine grading, 26,073 cu.yd. earth excav., 126,724 sq.yd. bituminous macadam, 31,624 cu.yd. gravel, 90,770 lb. structural and 53,810 lb. reinforcing steel, 112.3 cu.yd. Class "A" and 100.3 cu.yd. Class "B" concrete. About $285,740. Lone Star Eng. Co., Natl. Bank of Commerce, San Antonio, engrs. Noted May 20.

Tex., Sinton—Until Aug. 26, by J. C. Houts, judge San Patricio Co., grading, surfacing and draining 15.577 mi. Highway 9, Rd. Dist. 1, 16 ft. wide, also 12.04 mi. Highway 9, Rd. Dist. 5, 16 ft. wide. About $157,844 and $191,549 respectively. A. C. Pancoast, Beeville, engr. Noted June 24.

Tex., Texarkana—Until Aug. 23, by W. H. James, secy., paving State Line Ave., Pine, Maple, 3rd and 7th Sts., involving 60,000 cu.yd. asphaltic concrete on concrete base, or brick on concrete and gravel base. O. Yenglin, city engr.

Oregon—Until Aug. 24, by State Highway Comn., Salem, surfacing 6.3 mi. Oregon City-Oswego Sect. Pacific Highway, involving 11,200 cu.yd. broken stone or gravel; 15 mi. John Day River-Blalock Sect. Columbia River Highway, 32,000 cu.yd. broken stone; 4.55 mi. Cole Bridge Danby Ranch Sect. John Day River Highway, 10,800 cu.yd. gravel; 9.36 mi. Butte Creek Sect. John Day River Highway, 15,000 cu.yd. broken stone 1,200 cu.yd. pitrun Rhyolite, etc.; 4.94 mi. McMinnville-West Dayton Sect. West Side Highway, 8,500 cu.yd. run of bank gravel; 7.9 mi. Yamhill-Gaston Sect. Tualatin Valley Highway, 13,600 cu.yd. run of bank gravel; grading and surfacing 7.86 mi. Haines North Powder Sect. Old Oregon Trail, 63,000 cu.yd. excav., 17,300 cu.yd. crushed gravel. H. Nunn, state highway engr.

Streets and Roads (Continued)

N. S., Amherst—Until Aug. 24, by Dept. Pub. Wks., Ottawa, Ont., grading, paving, etc., at Drill Hall, involving concrete curbing and guttering, mastic flooring, waterproofing, etc. About $27,000. R. C. Wright, Dept. Pub. Wks., Ottawa, engr.

Que., Montreal—Until Aug. 23, by Administrative Comn., paving Messier St. and building sidewalks on Fabre, Monkland, Marquette and Old Orchard Sts. R. Bauset, clk.

Que., Valleyfield—Until Sept. 1, by L. Boyer, town clk. paving 1.255 mi. Victoria and Fabrique Sts., bituminous. Dept. Rds., Quebec, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Massachusetts — State Highway Dept., State House, Boston, let contract paving 3,500 ft. highway in West Springfield, Hampden Co., concrete, to Middlesex Constr. Co., 79 Hillside Rd., Medford, $29,969; 3,050 ft. highway in Westwood, Norfolk Co., bituminous macadam, to A. J. Mitchell, Boone St., Cohasset, $15,414.

★Mass., Dorchester (Boston P. O.)—City let contract laying granite block pavement on Dudley St. from Alexander to Stoughton Sts., to De Stofano Bros., 8 Everett St., East Boston (Boston P. O.), $28,812. Noted Aug. 5.

★Rhode Island—State Bd. Pub. Rds., State House, Providence, let contract building 2 mi. Mineral Springs Ave., North Providence, involving 5,800 gal. asphalt, 180 cu.yd. masonry concrete, 150 cu.yd. stone masonry, 1,350 sq.yd. cobble gutters, 11,500 cu.yd. earth and 2,500 cu.yd. rock excav., 4,550 cu.yd. stone and 1,260 cu.yd. gravel foundations, 1,400 lin.ft. pipe culverts, 6,000 tons crushed stone, etc., to J. McCormick, Newport, $95,937. Noted July 29.

★R. I., West Warwick—City let contract repaving 3½ mi. West Warwick Highway, waterbound macadam, to T. J. Quinn & Son, Ashton. About $35,000.

★Connecticut — State Highway Dept., Hartford, let contract building 11,400 ft. 3 in native stone macadam over 7 in. broken stone, Columbia-Vernon Highway, to Linberg & Street, 294 Washington St., Boston. About $100,000. Noted July 29.

★Connecticut—C. J. Bennett, state highway comr., Hartford, let contract building 3,650 ft. highway through Columbia Twp., to Linberg & Street, 294 Washington St., Boston, cost $25,000; 25 lin.ft., Brooklyn and Hampton Twps. to J. Arborio, 80 Park St., New Haven, $200,000; 5,560 ft. Cooks Hill Rd., New Fairfield, to J. De Michael & Bros., 58 High St., Torrington. Noted July 29.

★Conn., West Haven (New Haven P. O.)—Bd. Selectmen let contract paving various streets involving 10,500 sq.yd. sheet asphalt on 6 in. concrete base, to C. W. Blakeslee & Sons, 58 Waverly St., New Haven, $4.88 per sq.yd.; also with 8 in. bituminous macadam Bermudez and Natl. pavement on 6 in. concrete base, to Connecticut Natl. Pavements, Inc., Church St., New Haven, $40,000.

New York—F. S. Greene, state highway comr., Capitol, Albany, received bids Aug. 10, improving Rd. 432, Dutchess Co., from Kennedy Constr. Co., Albany, $83,935, Rosoff Eng. Co., Inc., 15 Park Row, New York City, $85,655, T. J. Martin, Beacon, $86,670; Rd. 931, Oneida Co., from McCarthy & Rock, Winthrop, $39,519; 0.22 mi. Rd. 1359, Onondaga Co., from M. H. Ripton, Rochester, $7,172, Onondaga Town Bd., Syracuse, $7,172; 0.86 mi. Rd. 5660, Onondaga Co., from J. Johnson Constr. Co., Buffalo, $87,221; 1.63 mi. Rd. 5653, Wayne Co., from F. H. Wells, Savannah, $84,894; Rd. 5334-A, Schuyler and Yates Counties, from W. Hazard, Ithaca, $8,293, J. W. Gurnett, Watkins, $8,933; Rd. 601, Cattaraugus Co., from Forness & Fote Co., Olean, $58,730. Bunce & Carll, Olean, $58,932. Noted Aug. 5.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Aug. 13, regulating and repaving with granite block, (a) State St. from Whitehall St. to Battery Pl., (b) Prince St. from Wooster St. to West Bway., (c) East 39th St. from 1st to 3rd Aves., (d) 122nd St. from Amsterdam Ave. to Riverside Dr., (e) with asphalt block 179th St. from Amsterdam Ave. to Bway., (f) 182nd St. from Amsterdam to Wadsworth Aves, (g) 182nd St. from Wadsworth Ave. to Bway., (h) with sheet asphalt 179th St. from Amsterdam Ave. to Bway., (i) 182nd St. from Amsterdam to Wadsworth Aves., (j) altering and improving extension to outlet sewer at foot of East 122nd St. and Harlem River, from C. Hellbock, 633 Wales Ave., (a) $19,075, (c) $46,101; W. J. Fitzgerald, 547 West 45th St., (a) $22,415, (b) $15,308, (c) $49,242, (d) $62,428; P. J. Kearns Contg. Co., 2306 Creston Ave., (b) $16,376, (c) $48,761, (d) $61,782, (j) $8,008; Burnside Contg. Co., 270 Burnside Ave., (c) $47,624, (d) $61,294, (h) $36,065, (i) $29,155; Hastings Pavement Co., 25 Broad St., (c) $39,329, (f) $31,494, (g) $6,615; Davney Asphalt Co., 177th St. and Westchester Creek, (h) $35,309; (i) $28,531; Asphalt Constr. Co., 2197 Madison Ave., (h) $36,762, (i) $30,241; P. F. Reilly, (j) $7,302; J. E. Buckley, (j) $7,544. Noted Aug. 5.

N. Y., New York—H. Bruckner, pres. Bronx Boro., received bids Aug. 10, repaving (a) 3rd Ave., (b) 149th St., (c) Creston Ave., (d) East 167th St., from Leonard Paving Co., 233 Bway., (a) $190,089; Astoria Contg. Co., (a) $199,514; Burnside Contg. Co., 270 Burnside Ave., (a) $197,905, (b) $36,771; S. Davis, (b) $36,405; C. Hellbock, 633 Wales Ave., (a) $201,624, (b) $37,242; J. L. Brusstar, Harlem River and 150th St., (c) $49,728, (d) $15,719; Asphalt Constr. Co., 2197 Madison Ave., (a) $208,655, (c) $50,682, (d) $16,241; Davney Asphalt Paving Co., 177th St. and Westchester Creek, (c) $51,261, (d) $16,124. Noted Aug. 5.

★N. Y., New York — City let contract building flooring on north footwalk of Williamsburg Bridge to Diaz Constr. Co., New York City, $37,719. Noted Aug. 5.

N. J., Gibbstown—Greenwich Twp. received bids July 30, furnishing labor and material paving Repauno Ave., involving 1,893 sq.yd. rein.-con., etc., from W. J. Lowe, 2218 Chestnut St., Phila., at $5.50 ped sq.yd.; A. F. Jordan & Co., Camden, $5.85; Hill Constr. Co., Phila., $7.40. Noted July 22.

★Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, let contract grading and draining 1.99 mi. highway from Friendville toward Love, Garrett Co., Contr. 485, to J. M Cain, 1024 North Charles St., Baltimore, $39,055; building .22 mi. of highway through Frederick, known as Patrick St., Contr. F-37, to M. J. Grove Lime Co., Lime Kiln, Md., $14,805. Noted July 29 and Aug. 5.

★W. Va., Berkeley Springs—Comrs. Morgan Co. let contract paving 3,000 ft. Berkeley Springs-Hancock Rd., concrete, to Simms & Torrington, Lincoln Bldg., Phila., $30,442. Noted Aug. 5.

★W. Va., Logan—Comrs. Logan Co. let contract grading and draining 3.7 mi. Logan-Lincoln Rd., involving 546 cu.yd. concrete, 696 lin.ft. 15 in. rein.-con. and 130 lin.ft. 18 in. vitr. clay pipe, 100 cu.yd. dry rubble, 2,400 cu.yd. borrow and 54,000 cu.yd. earth excav., to C. E. Price, Huntington, $86,539. Noted July 22.

★Ky., Louisa — City let contract paving and building storm sewers on 3 mi. Main, Madison, Court, Water, Pike, Lock and Jefferson Sts., about 24 ft. wide, involving 36,000 sq.yd. Kentucky rock, asphalt on 6 in. macadamized base, 30,000 lin.ft. concrete curbing and guttering, and 13,000 cu.yd. earth excav., to J. Richmond, Louisa, $182,000.

O., Cleveland—Bd. Comrs. Cuyahoga Co. received bids Aug. 4, grading, draining, curbing and paving Bway. 2 from East 55th St. to Osage Ave., involving 17,400 sq.yd. granite block on 3,000 cu.yd. 6 in. concrete base, 5,000 lin.ft. stone curbing, 17,950 cu.yd. earth excav., 17,400 ft. 4 in. sewer pipe, also Bway. 3 from Osage to Wiles Aves., 15,400 sq.yd. granite block on 2,600 cu.yd. 6 in. concrete base, 3,900 lin. ft. stone curbing, 16,800 cu.yd. earth excav., 9,750 ft. 4 in. sewer pipe, from McHugh Bros., 3873 West 37th St., $211,550 and $191,632 respectively.

O., Cleveland Heights (Warrensville, P. O.)—Village received bids grading, draining, curbing and paving (a) Briarwood Rd. from Kensington to Cedar Rds., (b) Canterbury Rd. from North Woodland to East Scarborough Rds., (c) Colchester Rd. from Demington Drive to Coventry Rd., (d) Cottagegrove Drive from Kensington to Cedar Rds., (e) East Derbyshire Rd. from Lamberton Rd. to Cottagegrove Drive, (f) Edgewood Rd. from Meadowbrook Blvd. to Cedar Rd., involving 19,600 sq.yd. asphalt on 176,400 sq.ft. 6 in. concrete base, 14,340 lin.ft. stone curbing, 6,700 cu.yd. earth excav., 14,340 lin.ft. 4 in. tile guttering, also (g) Kensington Rd. from Westminster to Lee Rds., (h) Kerwood Rd. from Clarkson Rd. to Meadowbrook Blvd., (i) Maplewood Ave. from Kensington to Cedar Rds., (j) Oakdale Rd. from Kensington to Cedar Rds., (k) Princeton Rd. from North Woodland to East Scarborough Rds., (l) Taylor Rd. from North Woodland to East Scarborough Rds., 32,650 sq.yd. asphalt on 293,750 sq.ft. 6 in concrete base, 23,700 lin.ft each stone curbing and 4 in. tile guttering, 10,500 cu.yd. earth excav., from Genl. Paving Co., Marshal Bldg., Cleveland, (a) $19,739, (b) $47,820, (c) $13,747, (d) $19,742, (e) $31,608, (f) $15,057, (g) $46,348, (h) $9,560, (i) $19,739, (j) $19,739, (k) $47,283, (l) $48,964; Cleveland Trinidad Paving Co., The Arcade, Cleveland, (a) $19,965, (b) $46,385, (c) $13,610, (d) $19,969, (e) $30,449, (f) $15,231, (g) $46,756, (h) $9,773, (i) $19,949, (j) $19,969, (k) $45,903, (l) $47,500.

O., Cleveland Heights (Warrensville P. O.)—Village received bids grading, draining, curbing and paving (a) Wood Rd. from Crest Rd. to Crest Drive, (b) Maple Rd. from Mayfield to Wood Rds. (c) Glenwood Ave. from Cleveland Heights Blvd. to Noble Rd., involving 20,900 sq.yd. 2 in. asphalt, 14,250 lin.ft. each stone curbing and tile guttering, 5,600 cu.yd. earth excav., 188,100 sq.ft. 6 in. concrete base; (d) Caledonia Ave. from Taylor Rd. to village limits, 7,900 sq.yd. asphalt, 6,300 cu.yd. earth excav., 4,800 lin.ft. each stone curbing and tile guttering, 71,000 sq.ft. 6 in. concrete base, from Spence Bros., Woodhill Rd., Cleveland, (a) $45,862, (b) $43,941, (c) $28,910; Cleveland Trinidad Paving Co., The Arcade, Cleveland, (a) $50,911, (b) $48,612, (c) $33,032, (d) $53,148; Genl. Paving Co., Marshall Bldg., Cleveland, (a) $52,086, (b) $50,557, (c) $33,294, (d) $58,082; Lake Erie Paving Co., 915 Society for Savings Bldg., Cleveland, (d) $49,266.

★O., St. Clairsville—Belmont Co. let contract paving 2 mi. Flushing-Uniontown Rd., concrete, to McClain Constr. Co., Bellaire, $78,000; 2.5 mi. Martins Ferry-Colerain Rd., brick, to Clifford & Shannafelt, Bellaire, $110,000. Noted July 29.

★O., Wadsworth—City let contract paving 3,200 ft. Northhampton Ave. to Columbus Asphalt Paving Co., 288 East 16th Ave., Columbus. About $68,000.

★Michigan—State Highway Dept., Lansing, let contract grading, draining and surfacing 1.192 mi. State Trunk Line Rd. 27-2, Port Huron, involving 13,934 sq.yd. concrete and 3,790 cu.yd. excav., etc., to J. H. Baker & Sons, Port Huron, $56,877. Noted July 29.

★Mich., Harrisville—Alcona Co. let contract grading, surfacing and draining 5.938 mi. Federal Aid Rd. 33, Sect. A, involving 62,434 sq.yd. gravel, 930 lin.ft. pipe culverts, 419 cu.yd. concrete in culverts, etc., 175 lin.ft. guard to Hill & Lonte, Whittemore, $103,145.

★Illinois—State Highway Dept., Springfield, let contracts grading Federal Aid Project 14, Sect. 9A, Jackson Co., to M. Hayes & Sons, Janesville, Wis., $17,379; Federal Aid Project 16, Sect. 15A, Jefferson Co., Sect. 16A, Jefferson and Wayne Counties, Sect. 18A, Wayne Co., to Cameron, Joyce & Co., 17 South 7th St., Keokuk, Ia., $183,802; Federal Aid Project 17, Sects. 1 and 2, Adams Co., to Buis & Olson, 116 North 8th St., St. Joseph, Mo., $189,000; Federal Aid Project 19, Sects. 18A and 19A, Stephenson Co., to Keokuk Quarry & Constr. Co., Keokuk, Ia., $37,444. Noted Aug. 5.

★Illinois—State Highway Dept., Springfield, let contracts paving state highway, Sect. B, Mason Co., concrete, to Miller & Comstock, Peoria, $13,090; Sect. I, Shelby Co., concrete, to A. C. Loomis Co., Mattoon, $20,001; Sect. I, Greene Co., earth, to J. Brogen, Carrollton, $7,351. Noted Aug. 5.

Wis., Milwaukee—Bd. Pub. Wks. received bids Aug. 6, paving (1) Atkinson Ave. from Green Bay Ave. to 11th St., involving 4,816 sq.ft. cement sidewalks, (2) Cawker Pl. from 30th St. to railroad tracks, 1,281 sq.yd. granite block pavement on 8 in. concrete foundation, etc., (3) Humboldt Ave. from Keefe to Lake Sts., 15,037 cu.yd. grading, (4) Locust St. from 39th St. south, 2,156 cu.yd. grading, (5) Marshall St. from Michigan to Wisconsin Sts., 1,580 sq.yd. sheet asphalt pavement, etc., (6) 7th St. from Green Bay Ave. to Lake St., 10,112 cu.yd. grading, (7) Sherman Blvd. from Center to Burleigh Sts. 35,181 cu.yd. grading, (8) Wisconsin St. from Marshall St. to railroad, 1,875 sq.yd. sheet asphalt, etc., (9) alley between 13th, 14th, Cedar and State Sts., 854 sq.yd. cement concrete pavement, (10) alley between 28th, 29th, Lisbon and Vine Sts., 821 sq.yd. cement concrete, (11) alley between 32nd, 33rd, Galena and Walnut Sts., 942 sq.yd. cement concrete, (12) alley between 32nd, 33rd, Cherry and Galena Sts., 733 sq.yd. cement concrete, (13) alley between 35th, 37th, Vliet and Cherry Sts. 312 sq.yd. cement concrete, (14) alley be-

Streets and Roads (Continued)

tween 20th, 21st, Locust and Chambers Sts., 1,060 sq.yd. cement concrete, (15) alley between 24th, West 24th, Locust and Chambers Sts., 1,083 sq.yd. cement concrete, (16) alley between West 24th, 25th, Hadley and Locust Sts., 1,536 sq.yd. cement concrete, (17) alley between 25th, 26th, Burleigh and Auer Sts., 1,771 sq.yd. cement concrete, (18) alley between 29th, 30th, Chambers and Burleigh Sts., 1,427 sq.yd. cement concrete, (19) alley between 47th, 48th, North and Meinecke Sts., 1,505 sq.yd. cement concrete, from F. Banaszak, 1335 4th Ave., (1) $0.29 per sq.ft., (9) $2.45; M. Switalski, 765 5th Ave., (2) $6; Manger Constr. Co., 332 Layton Blvd., (3) $0.76; F. Doherty, 753 47th St., (4) $0.63, (7) $0.67; White Constr. Co., 425 East Water St., (5) $3.90, (8) $3.90; Froemming & Radtke, 1288 Humboldt St., (6) $0.60; O. Bodemann, 801 Winnebago St., (10) $2.45, (12) $2.45, (14) $2.54, (15) $2.45, (19) $2.40; A. J. Koehn, 811 6th St., (11) $2.30; Retzlaff, Froemming & Bluhm, 948 4th St., (13) $2.56, (16) $2.48, (17) $2.48, (18) $2.48.

★**Minn., Eveleth** — City let contract improving 6 blocks of Cleveland and Garfield Sts. and various alleys, involving 7,000 sq.yd. bitulithic and 2,800 lin.ft. concrete curbing, to E. C. McCann Co., Eveleth, $45,864.

★**Minn., Faribault**—Rice Co. let contract paving Jefferson Highway through Northfield, 1 course gravel concrete, to Leonard-Utton Co., Rochester. About $60,000.

★**Minn., Fond du Lac**—St. Louis Co. (Duluth) let contract filling, grading and surfacing Fond du Lac and Carlton Rd., also building approaches to Fond du Lac Bridge, to Foley Bros. and Nelson, 209 Giffilian Bldg., St. Paul, $75,720.

Neb., Omaha—City received low bid paving 2 mi. of St. Marys Ave., vitr. brick, from J. H. McDonald, 3169 Farnam St., at $5.94 per sq.yd.

★**Neb., Omaha**—City let contract grading, paving and tearing up sidewalks on St. Marys Ave., to Callahan & Walker, 410 Bee Bldg., at $0.84 per cu.yd.

South Dakota—State Highway Comn., Pierre, received bids Aug. 4, grading and draining 11.69 mi. Ft. Pierre-Philip Rd., Federal Aid Project 14, 36 ft. wide, Stanley Co., from J. G. Jeffries, Hopewell, $74,306; Stevens Bros., St. Paul, Minn., $86,418. Noted July 22.

★**South Dakota**—State Highway Comn., Chamberlain, let contract grading and draining 9.1 mi. Chamberlain-Plankinton Rd., Federal Aid Project 30, 36 ft. wide, Brule Co., to G. L. Smith, Lingle, Wyo., $56,143. Noted July 22.

★**South Dakota**—State Highway Comn., Pierre, let contract grading and draining 14.76 mi. Watertown-Hayti Rd., Federal Aid Project 46, 36 ft. wide, Hamlin Co., to W. R. Shipmann Const. Co., Sioux City, Ia., $78,619; 12.94 mi. Gettysburg-Faulkton Rd., Federal Aid Project 37, 36 ft. wide, Potter and Faulk Counties, to Bd. Comrs. Potter Co., Gettysburg, $57,846. Noted July 22.

South Dakota—State Highway Comn., Chamberlain, received bids Aug. 3, grading and draining 6.58 mi. Presho-Winner Rd., Federal Aid Project 27, 36 ft. wide Lymann and Tripp Counties, from S. L. Smith, Lingle, Wyo., 61,048; grading, draining and building bridge on 8.47 mi. Chamberlain-Presho Rd., Federal Aid Project 49, 36 ft. wide, Lymann and Brule Counties, from D. D. Bidwell, Egan, S. D. $150,043; W. R. Shipman Constr. Co., Sioux City, Ia., $170,602; W. R. Grinnell, Dennison, Ia., $182,053. Noted July 22.

★**Wyoming**—State Highway Dept., Cheyenne, let contract grading 1.8 mi. Thayer Jct. West Rd., Federal Aid Project 97, Sweetwater Co., to Scott & Bussey, Rock Springs, $10,292; 12.5 mi. Newcastle-Sun Dance Rd., Federal Aid Project 27, Weston Co., to R. George, Rozet, $24,842; grading and paving with concrete, including construction of 8 rein.-con. box type culverts, on 4.2 mi. Saratoga-Encampment Rd., Federal Aid Project 98, Carbon Co., to Ferrey & Anderson, Cheyenne, $29,529; grading and installing 6 rein.-con. culverts on 3.75 mi. Torrington-Lusk Rd., Federal Aid Project 96, Goshen Co., to S. L. Smith, Henry, Neb., $14,406; building 60 ft. Dry Creek Bridge, concrete and steel, on Federal Aid Project 94, Park Co., to Standfield & Alderdice, Basin, $18,828.

★**Mo., St. Louis**—City will remove present wearing surface and replace with asphaltic cement, 7th Ave. from Park to Choteau Aves. About $20,284. Work will be done by day labor. Noted July 22.

★**Mo., St. Louis**—City let contract covering old foundation course with asphaltic binder and asphaltic cement wearing surface, Lafayette Ave. from Waverly Pl. to Grand Ave., removing macadam base and paving with bitulithic, Marcus Ave from Labadie to Ashland Aves., removing present wearing surface and replacing with asphaltic cement, Lawton Ave. from Jefferson to Grand Aves., also Union Blvd. from Easton to St. Louis Aves., to O. S. Brighton, St. Louis, $47,815, $13,288, $28,752 and $46,867 respectively; covering old foundation course with asphaltic binder and asphaltic cement wearing surface, Maple Ave. from Hamilton to Hodimont Aves., removing present wearing surface and replacing with asphaltic cement Skinker Rd. from Forsyth to Delmar Blvds., to Granite Bituminous Paving Co., Ry. Exch. Bldg., $21,455 and $42,638 respectively. Noted July 22.

Tex., Angleton—Brazoria Co. received bids Aug. 9, grading, surfacing and building trestle bridge on 5.73 mi. Highway 36, Rd. Dist. 24, 16 and 24 ft. wide, from S. I. Stratton and M. Palmer, representing Rd. Dist. 24, $40,956; L. D. McKaughan, West Columbia, $41,905. Noted Aug. 12.

★**Tex., El Paso**—City let contract paving various streets, involving 11,572 sq.yd. Warranite bitulithic on 6 in. compressed stone foundation, to El Paso Bitulithic Co., Piedras St.

Tex., Groesbeck—Limeston Co. received bids Aug. 10, grading and surfacing 23.37 mi. Highway 14 from Navasota River south to Falls Co., 15 ft. wide, from Tibbetts Constr. Co., Mineral Wells, $120,090; Womack Constr. Co., Sherman, $120,874; Haden & Austin, 727 Kress Bldg., Houston, $126,887. Work involves 12.4 acres clearing and grubbing, 100,824 cu.yd. earth excav. borrow, 33,231 cu.yd. earth and 310 cu.yd. rock excav., 30,435 cu.yd. gravel or rock surfacing, etc. About $145,000. F. P. Holt, Groesbeck, co. engr. Noted Aug. 5.

★**Tex., San Augustine**—San Augustine Co. let contract grading, surfacing and draining 8.89 mi. Highway 8 from Sabine Co. line west, 16 ft. wide, to H. F. Bland, Center, $60,513; including 10 per cent for engineering and contingencies. Noted Aug. 12.

★**Colorado**—State Highway Comn., Denver, let contract paving .956 mi. road between Grand Jct. and Fruita, 18 ft. wide, Federal Aid Project 109, Mesa Co., concrete, to Winderburn & Mapes, Grand Jct., $24,259; grading, draining and building one 60 ft. span steel truss bridge on 1.357 mi. road between Steamboat Springs and Kremmling, Federal Aid Project 106, also 6.647 mi. Steamboat Springs-Hahns Peak Rd., Federal Aid Project 80, both 28 ft. wide, Routt Co., to Northwestern Constr. Co., Craig, $27,012 and $57,923 respectively. Noted July 29.

★**Ariz., Florence**—Pinal Co. Highway Comn. let contract building Sects. 2, 3 and 4, Casa Grand-Tucson Highway, to R. Toorey, Florence, $132,333. Work involves 131,666 cu.yd. unclassified excav., at $0.46 per cu.yd., 500 cu.yd. sta. overhaul, $0.10, 268 cu.yd. Class "A," 5.2 cu.yd. Class "B" and 351.8 cu.yd. Class "C" concrete, $37.50, $37.50 and $32 respectively, 29,307 lb. reinforcing steel, $0.12, 176 lin.ft. 24 in., 132 lin.ft. 30 in. and 22 lin.ft. 36 in. corrugated metal pipe, $1.25, $1.35 and $1.50 respectively, 21.4 cu.yd. Class "C" concrete for headwalls, $35, 531 cu.yd. Class "C" concrete for dip headwalls, $32, 100 cu.yd. dip concrete, $30, 3,161 cu.yd. rock ballast for dips, $37, 5 cattle guards, $500 each, 225 cu.yd. excav. for bridge piers, abutments, etc., $1, 400 cu.yd. excav. for ditches, drains, etc., $0.48, 1,000 cu.yd. excav. for earth levees, $0.48.

★**Washington** — State Highway Dept. Olympia, let contract surfacing with crushed rock 8.62 mi. Inland Empire Highway from Dodge to Delaney, Columbia and Garfield Counties, to Genl. Constr. Co., Peyton Bldg., Spokane, $36,704; clearing and draining 2.01 mi. State Rd. 4, Lincoln Co., to McKivor Bros., Ritzville, $39,760; clearing, grading, draining and surfacing with crushed rock 1.25 mi. North Bank Highway, Skamania Co., also grading connection for Underwood Bridge on North Bank Highway, Skamania east, Klickitat Co., to Rojotte, Fobert & Winters, Ziegler Bldg., Spokane, $36,620 and $55,900 respectively. Noted July 22.

★**Wash., Grandview** — City let contract paving various streets, involving 26,170 sq.yd. Warrenite bitulithic on 3 in. bituminous concrete base, to Yakima Paving Co., Yakima.

★**Wash., Seattle**—City let contract improving Minor Ave., N., et al, involving 3,300 cu.yd. earthwork and subgrading, 7,040 lin.ft. type "C" armored concrete curbing, 10,460 sq.yd. 7 in. concrete paving, to R. G. Stevenson, 1327 Ewing St., $54,442.

★**Wash., South Bend**—Pacific Co. let contract grading, sub-grading and paving 8,20 ft. Permanent Highway 8, involving 8,29 sq.yd. concrete, 1,284 cu.yd. earth and 2,28 cu.yd. subgrade excav., to McClean & Williams, Astoria, Ore., $44,283.

★**Cal., Lodi**—City let contract paving various streets, involving 6,914 sq.yd. Warrenite bitulithic on 2½ in. bituminous concrete base, to Clark & Henery, 38 South Sutter St., Stockton.

★**Cal., Modesto**—City let contract paving various streets, involving 4,806 sq.yd. Warrenite bitulithic on 4 in. Portland cement base, to Standard Paving Co., 9th and N Sts.

Railways

PROPOSED WORK

Maryland—Pennsylvania R.R., Broad St. Station, Phila., plans to enlarge yards at Canton (East Baltimore). About $350,000. G. M. Smith, Baltimore, supt.

North Carolina—Blue Ridge Development Co., Hickory, plans to build 150-200 mi. electric railway from Mt. Holly to Boone. J. D. Elliot, Hickory, pres.

BIDS DESIRED

Virgina—Until Aug. 27, by Griffith-Wagner Co., engrs. 704 Natl. Bank Bldg., Charlottesville, building 2,200 ft. spur track with 2 wood trestles, also laying rails and ties, at Proffit, for Ohio Sulphur Co., Inc.; advertised in this issue.

Excavation and Dredging

PROPOSED WORK

Ia., Sioux City—Ditch—Woodbury Co. rejected bids received Aug. 3 building Maple River Ditch in Maple River D. D. 1. W. M. Pritchard, co. aud. E. E. Carlson, Battle Creek, engr. Noted July 22.

Mo., Commerce—Channel—Scott Co. D. D. 10 had plans prepared by Morgan Eng. Co., engrs., Goodwyn Institute, Memphis, Tenn., for enlarging 21 mi. of channel near here with 32-53 ft. base work and involving 660,000 cu.yd. dragline, 987,000 cu.yd floating dredgework. About $500,000.

Ark., Lake Village—Ditch—Grand Lake D.D., Chicot Co., receives bids in about 6 weeks building 20 mi. open ditches, 8 ft. deep, 10-20 ft. wide at base. Work involves 10 wooden bridges, 40-50 ft. spans, 700 lin.ft. culvert pipe, 5,000 cu.yd. levee dams, 700,000 yd. floating dredging, etc. O. G. Baxter, Moore & Turner Bldg., Little Rock, engr.

Wash., Yakima—Irrigation—City having plans prepared for irrigation system, to provide east side with irrigation water, piped and under gravity flow. About $50,000. C. F. Wilson, Yakima, engr.

BIDS DESIRED

Ill., Raymond—Ditch—Until Aug. 28, by Comrs. D. D. 1, Montgomery Co., building Sect. 1 Main Ditch, Stations 0 to 75 plus 37 ft., involving 8,575 cu.yd. excav.; Main Ditch, Stations 75 plus 37 ft. to 94 plus 4 ft., 1,272 cu.yd. excav.; Sect. 2, Glover Branch, 1,048 cu.yd. excav.; Sect. 3, Moore Branch, 1,383 cu.yd. excav. J. W. Dappert, Raymond, engr.

Ia., Clinton—Ditch—Until Aug. 23, by Clinton Co., building ditches in D. D. 21, involving 15,415 ft. 8-20 in. tile, 15 manholes, etc. J. W. Strohm, co. aud.

Ia., Marengo—Drainage—Until Aug. 26, by A. H. Hunter, aud. Iowa Co., building D. D. 8, involving 457,600 cu.yd. excav., 13 ft. wide, 13 ft. deep and 54,300 ft. long. About $100,000.

S. D., Corsica—Until Sept. 10, by H. Henderson, aud. Douglas Co., Armour, building Voss Drainage Ditch, 9 mi. northeast of here; Garden Valley Drainage System, 3 mi. north of here; Mud Lake Drainage System, 7 mi. northwest of here E. Henderson, deputy; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**D. C., Washington**—Excavation—Dist. Comrs. let contract excavating for foundation for New Eastern High School to G. W. Hyman, 116 Morse St., N.E. About $38,000. Noted Aug. 12 under "Buildings."

★**Wis., Milwaukee**—Excavation—Bd. Industrial Educ., Mfg. Home Bldg., let contract excavating 2d unit continuation school, 7 story, 145 x 268 ft., rein.-con. flooring, concrete and pile foundation, on 7th and

Excavation and Dredging (Continued)

Prairie Sts., to H. Wussow, 191 Concordia St. Work involves 11,000 cu.yd basement excav., at $1.30 per cu.yd., 4,000 cu.yd. subbasement excav., $1.44. Noted July 29.

★**Ia., Estherville** — Excavation — Emmet Co. let contract cleaning out 20,100 ft. open ditch and 1 bulkhead, Joint D. D. 17, involving 26,180 cu.yd. excav. and 2,000 ft. 34 in. tile, to Clarke Constr. Co., Clinton.

★**Ia., Ft. Dodge**—Drainage—Webster Co. let contract building D. D. 4 to E. Johnson, Calendar; furnishing and laying tile for D. D. 311 to Lehigh Sewer Pipe & Tile Co., Ft. Dodge; furnishing labor, to C. Kramme, Ft. Dodge; D. D. 316, tile, to Humboldt Gravel & Tile Co., Humboldt, labor, to C. Kramme, Ft. Dodge. Noted July 29.

★**Ia., Garner**—Drainage—Hancock Co. let contract furnishing and laying 14,516 ft. 12-30 in. tile for building D. D. 105 to O. N. Gjellefald, Forest City.

★**Mo., Cape Girardeau**—Drainage—Little River D.D. let contract for 35,000 sq.yd. each willow mattress and rock slope paving revetment work in Cape Girardeau, Dunklin, Pemiscot and Bollinger Counties, to Kansas City Bridge Co., 1012 Baltimore Ave., Kansas City. About $175,000.

★**Wash., Olympia** — Excavation — Comrs. Thurston Co. let contract digging and dredging main line ditches for drainage system in Black Lake territory, to have 3 mi. canal, 6-16 ft. wide, to reclaim 1,800 acres of land, involving 2,000 yd. hard gravel excav., to E. J. Cheatham & Sons, E. 1019-11th St., Spokane, $46,425.

Industrial Works

PROPOSED WORK

Mass., Chelsea — S. S. Eisenburg, archt., Exch. Bldg., soon lets contract building 2 story, rein.-con. and steel garage, rein.-con. flooring, concrete foundation, on Ellsworth St. for M. Rosenthal, 64 Hawthorn St. About $75,000.

Mass., Greenfield—Greenfield Tap & Die Corp., Sanderson St., plans to build 5 story, rein.-con. addition to plant. Harris & Richards, Drexel Bldg., Phila., archts and engrs.

Mass., Turners Falls—Greenfield Tap & Die Corp., Sanderson St., Greenfield, plans to build 1 story addition to forge plant, brick and steel, concrete foundation, here. About $50,000. Private plans.

Mass., Worcester—Reed & Prince Mfg. Co., Duncan Ave., had plans prepared by J. D. Leland, archt., 185 Devonshire St., Boston, for 1 story, 30 x 65 ft. and 3 story, 62 x 118 ft. factory buildings, also 1 story, 60 x 110 ft. auditorium, brick, concrete and steel, concrete foundation. Cost between $150,000 and $200,000.

R. I., Providence—Waldorf Lunch Co., c/o J. M. Gray, archt., 112 Water St., Boston, soon lets contract building 1 story, concrete, brick and steel addition to bakery, rein.-con. flooring, concrete foundation, on Byron St. About $50,000.

N. J., Newark — Amer. Can Co., 120 Bway., New York City, plans to build rein.-con., brick and steel fatcory, rein.-con. flooring, concrete foundation, here. About $500,000. Private plans.

N. J., Newark—Williams Baking Co., 711 South 10th St., soon lets contract building 2 story, 50 x 125 ft. addition to bakery, brick and timber. About $100,000. J. T. Simpson, Essex Bldg., archt. Noted July 29.

Pa., Wilkes Barre—J. J. Becker, Market St., plans to build 1 story, 60 x 100 ft. ice cream factory, brick, rein.-con. flooring, concrete foundation, on Market and Gates Sts. About $100,000. Architect not selected.

Va., East Richmond (Richmond P. O.)—Jefferson Tire & Rubber Co., Central Bank Bldg., having plans prepared by Akron Eng. Co., Akron, O., for 3 story, 80 x 240 ft. factory. About $150,000.

S. C., Cateechee — Norris Cotton Mills having plans prepared by J. E. Sirrine & Co., archts., Greenville, for 3 story, 50 x 100 ft. warehouse, standard mill construction.

O., Cleveland—J. Spang Baking Co., 2711 Barber Ave., having plans prepared by E. Huberty, archt., 8017 Whitethorne Ave., for 3 story, 70 x 125 ft., rein.-con., brick and steel bakery, rein.-con. flooring, concrete foundation. About $100,000. J. Spang, pres.

Ill., Chicago—D. H. Hannan, engr., 155 North Clark St., soon lets contract building 2 story, 50 x 100 ft., steel and brick factory, concrete foundation, on Root and State Sts., for A. H. Weber, c/o engineer. About $57,000.

Wis., Campbellsport — White House Milk Products Co., West Bend, had plans prepared by M. Tullgren & Sons, archts., 425 East Water St., Milwaukee, for 2 story, 50 x 110 ft. concentrating plant, also 1 story boiler house, brick, rein.-con. and steel, rein.-con. flooring, brick foundation, on Main St. About $75,000. Noted Aug. 5.

Wis., Marshfield—City plans to build addition to boiler house. J. Seubert, clk. Cahill & Douglad, 217 West Water St., Milwaukee, engrs.

Kan., Pittsburg—Pittsburg Builders & Pavers Brick Co. having plans prepared building rein.-con. and brick plant, rein.-con. flooring, brick foundation, to have 4 new kilns. About $60,000. Private plans.

Neb., Minatare—Great Western Sugar Co., Scotts Bluff, plans to build factory of 1,000 ton capacity, here.

Cal., San Francisco—Amer. Can Co., 120 Bway., New York City, plans to build rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, here. About $500,000. Private plans.

P. E. I., Charlottetown—B. Stewart & Co. soon receives bids building 60 x 120 ft. concrete and brick plant.

Que., Cookshire—East View Milling Co., soon receives bids building plant. About $150,000. R. H. Pope interested.

Que., Quebec — Standard Pulp & Paper Co., Ltd., plans to build plant. About $1,250,000. H. Bullock, Roxton Pond, interested. Architect not selected.

Man., Winnipeg—Dominion Oxygen Co. soon receives bids building plant. About $100,000.

BIDS DESIRED

N. Y., Mineola—C. L. Weir, engr., 1480 Bway., New York City, receiving bids building ice storehouse, here, for Knickerbocker Ice Co., 65 Flatbush Ave., Brooklyn. About $75,000.

N. Y., Ossining—Until Sept. 15, by C. F. Rattigan, supt. State Prisons, Capitol, Albany, for building, heating, sanitary and electric work for addition to power house, at State Prison, here. L. F. Pilcher, Capitol Albany, state archt.; advertised in this issue.

N. J., Homestead — Andrews, Tower & Lavalee, archts. and engrs., 33 Lyman St., Springfield, Mass., receiving bids building 5 story, 85 x 205 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, for Amer. Chocolate Products Co., 206 Bway, New York City. About $350,000.

La., New Orleans—Until Aug. 31, by Bd. Port Comrs., furnishing or furnishing and erecting all structural steel required for Poydras St freight shed side extension; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., Dover**—Natl. Woodworking Mach. Co., Bway., let contract building 50 x 100 ft. foundry, 35 x 200 ft. machine shop and 40 x 100 ft. pattern shop, all 1 story concrete and steel, concrete flooring and foundation, on Locust St., to Chesley & Co., 11 Middle St. About $125,000.

★**N. H., Peterboro**—Peterboro Co. let contract building 1 story, 200 x 225 ft., brick and frame plant, concrete flooring and foundation, to Osgood Constr. Co., 25 East Hollis St., Nashua. About $125,000.

★**Mass., Boston**—W. F. Schrafft & Sons Corp., 160 Washington St., N., let contract building 3 story, 80 x 240 ft., rein.-con. and steel plant, rein.-con. flooring, concrete foundation, on Causeway St., to W. M. Bailey Co., 88 Broad St. About $250,000. Noted July 22.

★**Mass., Cambridge**—Standard Oil Co. of New York, 50 Congress St., Boston, let contract building 5 story, 120 x 140 ft., rein.-con. and terra cotta garage and repair shop, rein.-con. flooring, concrete foundation, on Munroe St. here to S. C. Sperry Co., 300 Main St. About $275,000.

★**Mass., Cambridge**—Suffolk Engraving & Electrotyping Co., 394 Atlantic Ave., Boston, let contract building 6 story, 100 x 100 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Main St., here, to Simpson Bros. Corp., 166 Devonshire St., Boston. About $225,000. Noted July 22.

★**Mass., Quincy**—Bethlehem Shipbuilding Corp., Fore River, let contract building 1 story, 22 x 35 ft. addition to power house, also 2 story, 40 x 100 ft. central house, at Fore River to Aberthaw Constr. Co., 27 School St., Boston. About $75,000.

★**Mass., Springfield** — Pabco Flour Mills, Inc., 52 Bliss St., let contract building 3 story, rein.-con. and steel. mill, rein.-con. flooring, concrete foundation, on Margaret St., to J. G. Roy & Sons Co., 21 Silver St. About $50,000. Noted June 3.

★**Mass., Williamansett** (Holyoke P.O.)—Rauch & Lang, Inc., let contract building 1 story, 300 x 325 ft., brick, concrete and steel factory, rein.-con. flooring, concrete foundation, on Meadow St., to P. J. Kennedy & Co., Inc., 464 Maple St., Holyoke. About $300,000.

★**Conn., Bridgeport**—A. Aldo, 1699 Madison Ave., will build 1 story, 100 x 110 ft. brick and steel garage, concrete flooring, on North Ave. and Sedgwick St. About $50,000. Work will be done by day labor. Noted Aug. 5.

★**Conn., Montville** — R. Gair & Co., 50 Washington St., Brooklyn, let contract building 2 story, 200 x 500 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, also 1 story, 50 x 50 ft. power plant, here, to Austin Co., 217 Bway., New York City. About $600,000.

★**Conn., New Britain**—Landers, Frary & Clark, Commercial St., will build 3 story, 60 x 210 ft., brick and steel addition to factory, concrete foundation, on Ellis St. About $115,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Brooklyn Edison Co., 360 Pearl St., will build 1 story, brick and steel sub station, concrete foundation, on Grand Ave. About $100,000. Work will be done by day labor under supervision of W. Whitehall, archt., 12 Elm St., New York City. Noted May 13.

★**N. Y., Brooklyn**—Kalman Constr. Co., 1779 Pitkin Ave., will build 1 story, 100 x 150 ft., rein.-con., steel and brick garage, rein.-con flooring, concrete foundation, on Ave. J. About $300,000. Work will be done by day labor.

★**N. Y., Brooklyn**—P. E. Meyer, 54 Rochester Ave., will build 3 story, 25 x 75 ft. brick and steel garage, rein.-con. flooring, concrete foundation, on Atlantic Ave. About $60,000. Work will be done by day labor.

★**N. Y., New York**—New York Edison Co., Irving Pl. and 15th St., will build 1 story, rein.-con. and steel sub-station, on Cedar St. About $75,000. Work will be done by day labor under supervision of W. Whitehill, archt., 12 Elm St. Noted April 22.

★**N. Y., New York**—Welrich Constr. Co., c/o P. Steigman, archt., 690 Bway., will build 2 story, 100 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Barretto St. About $65,000. Work will be done by day labor.

★**N. Y., Yonkers**—Yonkers Electric Light & Power Co. let contract building brick, concrete and steel substation, rein.-con. flooring, concrete foundation, on Dunwoodie Ave., to Fitzpatrick & McArthur, Yonkers. About $150,000. Noted June 24.

★**N. J., Newark**—Clark Thread Co., Clark and Ogden Sts., let contract building 4 story, 82 x 300 ft. and 5 story, 60 x 200 ft. additions to factory, concrete and brick, to J. W. Ferguson, United Bank Bldg., Paterson. Noted June 24.

★**Pa., New Castle**—Johnson Bronze Co., South Mill St., let contract constructing 52 x 68 ft. core building, 32 x 62 ft. machine shop, both 2 story, also 1 story, 68 x 101 ft. foundry, brick and steel, rein.-con. flooring, brick foundation, to Moore-Lamb Co., Stambaugh Bldg., Youngstown, O. About $125,000. Noted Aug. 5.

★**Pa., Phila**—Taylor Wharton Iron & Steel Co., 25th and Washington Sts., let contract building 1 story, 90 x 100 ft. addition to machine shop, brick and steel, on 51st and Grays Sts., to Hughes-Foulkrod Co., Commonwealth Trust Bldg.

★**Md., Baltimore**—Natl. Bldg. Supply Co., North Ave. and Oak St., let contract building 1 story, 60 x 210 ft. frame warehouse, stone and concrete foundation, on Garrison Lane, also 250 ft. railroad siding, to J. H. Smith, 1426 Light St. About $150,000.

★**Ala., Mobile**—Kelly Dry Dock & Shipbuilding Co., Commerce St., will build 1 story, 75 x 150 ft., machine shop, rein.-con., brick and steel, rein.-con. flooring, on Blakely Island. About $150,000. Work will be done by day labor.

★**La., New Orleans**—Union Paper Products Co., 109 Tchoupitoulas St., let contract building 1 story, brick and steel factory, to J. Fromherz, 302 Title Guarantee Bldg., $112,743. Noted July 29.

★**Tenn., South Memphis** (Memphis, P. O.)—Memphis Terminal Corp., Central Bank Bldg., let contract building 1 story, 300 x 600 ft. concrete and timber warehouse here to F. B. Young & Son, Bank of Commerce Bldg., Memphis. About $100,000.

★**O., Canton** — Bowman Bros. Drug Co., 3d and Court Sts., N.W., let contract building 2 story, 90 x 140 ft., brick and concrete warehouse on Schroyer Ave., S.W., to Van Orman Bros., Canton. About $60,000

Industrial Works (Continued)

★**O., Cleveland**—Kaynee Co., Aetna Rd. and Bway., let contract building 1 story, 60 x 180 ft. box factory and garage, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to J. Hurby, 4123 East 131st St. About $75,000. Noted Aug. 12.

O., East Cleveland (Cleveland P. O.)—Bd. Educ. received bids July 30 for general contract building 1 story, 48 x 66 ft. heating plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at Prospect School, from D. Miller Co., 4500 Euclid Ave., Cleveland, $56,900; C. Peterson Co., 4500 Euclid Ave., Cleveland, $63,500; Tenbusch Parker Constr. Co., 1836 Euclid Ave., Cleveland, $63,696. Noted July 22.

★**Ind., Indianapolis**—E. W. Steinhart Co., 11th and Meridian Sts., let contract building 5 story, 110 x 130 ft., service and sales, rein.-con., brick, steel and terra cotta, on North Meridian St., to State Constr. Co., Pythian Bldg. Abut $400,000.

★**Ill., East St. Louis**—Darling & Co., 4201 South Ashland Ave., Chicago, let contract constructing fertilizer plant here, to include 60 x 83 ft. storage building, 50 x 80 ft. acidulation plant, 30 x 40 ft. garage, all 1 story, brick and steel, also 1 story, 134 x 300 ft. main building, steel and concrete, 2 story, 40 x 70 ft., brick and timber office, and several concrete storage tanks, to Austin Co., 208 South La Salle St., Chicago. About $500,000.

★**Ill., Melrose Park**—Heppes-Nelson Roofing Co., 4500 Filmore St., Chicago, let contract constructing 50 x 200 ft. storage and 100 x 320 ft. finish buildings, 50 x 60 ft. boiler house, 80 x 140 ft still and gas building, 60 x 100 ft. garage, all 1 story, brick and steel, also 100 x 350 ft. rein.-con. and steel machinery building, 33 x 100 ft. brick and steel train shed, etc., to Austin Co., 208 South La Salle St., Chicago. About 400,000.

★**Wis., Grafton**—Jungers Stove & Range Co. will build 3 story, 61 x 105 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Main St. About 50,000. Work will be done by day labor. Steel contract let to Robertson & Jackson, 1415 Majestic Bldg., Milwaukee.

★**Wis., West Allis**—Nelson Pulley Co., 857 27th St., Milwaukee, will build 1 story, 60 x 120 ft. machine shop and foundry, concrete and mill construction, concrete flooring and foundation, on 77th Ave. Work will be done by day labor.

★**N. D., Valley City**—City let contract building 2 story, 80 x 89 ft. power plant, brick, to McManis & Tarnoski, 484 Endicott Bldg., St. Paul, Minn. About $60,000.

★**Mo., Kansas City**—Kansas City Light & Power Co., 3rd and Lydia Sts., let general contract building 2 story, 46 x 57 ft. substation, rein.-con., to Fogel Constr. Co., 618 Reliance Bldg.

★**Mo., St. Louis**—Brecht Co., 1201 Cass Ave., let contract building 2 story, 107 x 130 ft., brick and steel factory, to Reinschmidt Constr. Co., Victoria Bldg. About $80,000.

★**Ore., Portland**—Amer. Can Co., 120 Bway., New York City, let contract building rein.-con., brick and steel factory, here, rein.-con. flooring, concrete foundation, to A. W. Quist, Portland. About $750,000.

★**Ont., St. Thomas**—Elgin Milk Products Co. will build 2 story, 55 x 200 ft., rein.-con. factory, on Talbot St. About $100,000. Work will be done by day labor.

Buildings

PROPOSED WORK

Mass., Athol—Hall—Town receives bids about Sept. 10 building 2 story, 50 x 125 ft., with 50 x 80 ft. wing, concrete, brick and steel memorial hall and auditorium, rein.-con. flooring, concrete foundation, on Main St. About $250,000. Brainerd, Leeds & Kellogg, 89 Franklin St., Boston, archts. Noted June 24.

Mass., Boston—Housing—H. B. Peek Corp., 1041 Little Bldg., plans extensive housing construction. About $1,000,000. McLaughlin & Burr, 88 Tremont St., archts.

Mass., Boston—School—Lockwood, Greene & Co., archts. and engrs., 60 Federal St., soon receive bids building 2 story, 60 x 82 ft., rein.-con. and tile, rein.-con. flooring, concrete foundation, on Parker St., for Hellenic Greek Assn., c/o architects. About $100,000.

Mass., Greenfield—High School—Bd. Educ. having revised plans prepared by Patton & Blair, archts., 579 5th Ave., New York City, and will soon receive bids, building 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Federal and Sanderson Sts. About $400,000. H. Richardson, 23 Pleasant St., chn. Noted Jan. 8.

N. Y., Great Neck—Schools—Bd. Educ. soon receives bids building two 2 story, brick and stone, brick foundations. About $400,000. W. S. Bessell, 56 W. 45th St., New York City, archts. and engrs.

N. Y., New York—Bank and Office—Canadian Bank of Commerce, 16 Exch. Pl., soon lets contract altering 8 story, also building 2 story addition to same, brick, steel and stone, concrete foundation. About $500,000. A. F. Gilbert, 80 Maiden Lane, archt. and engr.

N. Y., New York—Hospital—Jewish Memorial Hospital, c/o R. Resler, archt. and engr., 501 5th Ave., having plans prepared altering brick and stone hospital, on Dyckman St. About $160,000.

N. Y., New York—Loft and Office—Wendel Estate, c/o R. D. W. Swope, 175 Bway., having plans prepared by J. B. Snooks & Sons, archts. and engrs., 261 Bway., for 6 story, brick, steel and stone, concrete foundation, at 444 5th Ave. About $500,000.

N. Y., Richmond Hill (Jamaica P. O.)—Hall—Parish of Holy Child of Jesus having plans prepared by G. E. Steinbach, archt. and engr., 157 West 74th St., New York City, for additional story, brick and stone. About $100,000.

N. J., Camden—Store—H. Pinsky & Co., 1126 Bway., soon lets contract building 4 story, 48 x 140 ft., concrete and brick, on Bway. and Spruce St. About $100,000. P. Mertz, Penn Bldg., Phila., archt. Noted May 13.

N. J., Cranford—School—Bd. Educ. plans to build brick and stone, brick foundation, here. About $100,000. Hollingsworth & Bragdon, 17 W. 45th St., New York City, archts. and engrs.

Pa., Coaldale—High School—Bd Educ. having plans prepared by J. T. Simpson, archt., Essex Bldg., Newark, N. J., for 2 story, rein.-con and brick, here. About $150,000.

Pa., Elizabethtown—Hospital—Masonic Home having plans prepared by E. A. Wightman, archt., Heed Bldg., Phila., for 3 story, 110 x 220 ft. addition, granite and limestone. About $200,000. J. W. Otis, Huntingdon, engr.

D. C., Washington—School—Dist. Comrs. having plans prepared by S. Ashford, archt., Dist. Bldg., for brick, steel and stone, on 18th, 20th, Monroe and Newton Sts. About $135,000.

D. C., Washington—Theatre—A. P. Clarke, Jr., archt., 816 14th St., N.W., soon lets contract building 1 story, 35 x 100 ft. and 101 x 150 ft., on 14th St. and Park Rd., for T. Moore, c/o Rialto Theatre, 713 9th St., N.W. About $250,000.

S. C., Cateechee—School, etc.—Norris Cotton Mills having plans prepared by J. E. Sirrine, archt., Greenville, for 2 story, 47 x 88 ft. school, also 1½ story, 108 x 108 Y. M. C. A. building, both hollow tile and stucco.

O., Cleveland—Church and School—C. R. Greco, archt., 8 Beacon St., Boston, Mass., soon lets contract building 1 and 2 story, brick, steel and stone, rock foundation, on 114th St., for St. Joseph Church, South Aspinwall Ave. About $200,000.

Ind., Indianapolis—Courthouse—Marion Co. plans to repair 4 story courthouse, on Washington St. About $100,000. Architect not selected.

Ind., Richmond—Memorial—Wayne Co. Memorial Comn. having plans prepared by Study & Farrar, archts., Arcade Bldg., St. Louis, for 4 story, 150 x 250 ft., rein.-con., Bedford stone and brick, rein.-con. flooring. About $600,000.

Ill., East Moline—School—School Bd. rejected bids received Aug. 9, and are having revised plans prepared by Whitsitt & Schulzke, archts., Peoples Bank Bldg., Moline, for 1 story, John Deere School. About $100,000. Noted July 29.

Wis., Evansville—School—Bd. Educ. having plans prepared by Claude & Starck, archts., 1-2 Badger Annex, Madison, for 2 story, brick and concrete, rein.-con. flooring, concrete foundation. About $100,000.

Wis., La Crosse—School—Bd. Educ. having plans prepared by O. A. Merman, archt., La Crosse, for Hogan School, 2 story, 60 x 110 ft., brick, steel and concrete, rein.-con. flooring, concrete foundation. About $100,000. N. Luening, pres. Noted July 22.

Wis., Manitowoc—Club and Store—Manitowoc Aerie of Eagles having plans prepared by W. J. Raeuber, archt., Teitgen Bldg., for 3 story, 100 x 220 ft., brick, rein.-con. and steel, brick foundation, on 8th St. About $200,000. J. Koutnik, chn. 1114 South Main St. Noted Aug. 12.

Wis., Milwaukee—Theatre—T. Gaxe, 16 5th St., having plans prepared by M. Tullgren & Sons, archts., 425 East Water St. for 1 story, 80 x 120 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on North Ave. About $100,000.

Minn., Newport—Housing—Farmers Terminal Packing Co., 920 Commerce Bldg., St. Paul, soon lets contract building thirty-five 1 and 1½ story stucco and frame cottages, here. About $4,000 each. H. E. Edmunds, secy. Noted Jan. 8.

Kan., Pittsburgh—Club—B. P. O. E. having preliminary plans prepared by Study & Farrar, archts., Arcade Bldg., St. Louis, for brick and timber. About $110,000.

Kan., Salina—Administration—Weslyan University having plans prepared by Study & Farrar, archts., Arcade Bldg., St. Louis, for rein.-con. and brick, rein.-con. flooring. About $400,000.

Neb., Lincoln—Store—Gold & Co., 112-18 North 10th St., having plans prepared by E. Davis, archt., Security Mutual Bldg., for 5 story, 50 x 142 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $250,000.

N. D., Fargo—Agricultural—North Dakota State Agricultural College plans to construct new building. About $200,000. A. Leech, Fargo, secy. Keith & Kurke, Fargo, archts.

Que., Buckingham—Church—Catholic Parish soon lets contract building frame church, rock foundation. About $100,000. P. Chatelain, supt. Noted Aug. 15.

Que. Montreal—School—Protestant School Bd., Belmont St., plans to build 4 story, 74 x 226 ft., concrete, brick and steel, concrete foundation, on Morgan Blvd. About $350,000.

BIDS DESIRED

Me., Auburn—Until Aug. 28, by Jallade, Lindsay & Warren, archts., 37 Liberty St., New York City, building 4 story, brick, steel and stone, rein.-con. flooring, concrete foundation, here, for Y. M. C. A. About $150,000. Noted April 29.

Mass., Attleboro—Bank and Office—Until Aug. 24, by W. R. Walker & Son, archts., 17 Custom House St., Providence, R. I., building 4 story, 95 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Park St. here for 1st Natl. Bank, Main St. Noted July 1.

Conn., West Hartford (Hartford P.O.)—High School—Until Sept. 10, by School Comn., building 2 story, 200 x 204 ft., brick, concrete, steel and stone, rein.-con. flooring, concrete foundation, on South Main St. About $500,000. W. T. Marchant, 36 Pearl St., Hartford, archt. Noted July 29.

Conn., Windsor—High School—Until Sept. 7, by School Comn., building 2 story, 90 x 155 ft., brick, concrete, stone and steel, rein.-con. flooring, concrete foundation. About $200,000. Whiton & McMahon, 36 Pearl St., Hartford, archts. Noted June 24.

N. Y., Brooklyn—Bank—Until Aug. 26, by Trowbridge & Ackerman, archts. and engrs., 19 West 44th St., New York City, building brick and stone, on Flatbush Ave., for Midwood Trust Co., c/o architects. About $100,000.

N. Y., Buffalo—Church—Until Aug. 23, by C. W. Bolton, archt., Witherspoon Bldg., Phila., building 1 story, 156 x 176 ft., granite and stone, on Morris, Westly and Beard Sts., for City Park Methodist Episcopal Congregation; care of architect. About $200,000. Noted April 29.

N. Y., New York—Loft—Until Aug. 24, by J. F. Nitchie, archt. and engr., 63 Park Row, building 6 story, 50 x 100 ft., brick, steel and stone, concrete foundation, at 318 West 46th St., for A. W. Palmo, c/o architect. About $150,000. Noted July 8.

Pa., McKeesport—School—Until Aug. 30, (change of date) by Bd. Educ., building 2 story, brick and fireproof construction, on Union Ave. and Beech St. About $325,000. J. M. McCollum, Berger Bldg., Pittsburgh, archt.

D. C., Washington—Hospital—Until Sept. 8, by Dist. Comrs., Dist. Bldg., constructing 2 story, 300 x 400 ft. psychopathic ward of Gallinger Hospital, brick and stone. About $700,000.

O., Prospect—School—Until Aug. 26 (change of date), by Bd. Educ., building 2 story, 114 x 145 ft., concrete and brick. About $125,000. O. D. Howard, 8 East Broad St., Columbus, archt. Noted Aug. 5.

Mich., Detroit—Mercantile—Crowley Milner Co., Farmer St., receiving bids building 2 additional stories, 95 x 220 ft. rein.-con., brick, steel and terra cotta, rein. con.

Buildings (Continued)

ring, on Farmer and Monroe Sts. About 000,000. Smith, Hinchman & Grylls, 710 Washington Arcade, archts.

Ill., De Kalb—Hospital—A. Foster, archt., North Clark St., Chicago, receiving bids masonry work for 3 story, 40 x 179 ft., k and timber, concrete foundation, here, J. A. Solon, De Kalb. About $150,000.

Kan., Newton—School—Until Aug. 26, by Educ., building 2 story, 26 x 109 ft. n.-con., steel and brick, rein.-con. floor-g, concrete foundation. About $115,000. orentz, Schmidt & Co., 121 North Market St., Wichita, archts.

N. D., Dickinson—Dormitory—Until Aug. by Keith & Kurke, archts., Fargo, build-g 3 story, 80 x 89 ft., rein.-con., brick, el and stone., rein.-con. flooring, concrete ndation, at State Normal School, on Main St., for State Bd. Educ., Bismarck. About $100,000.

N. D., Marmarth—High School—Until Sept. 7, by Bd. Educ., building 2 story, 61 x 91 ft., rein.-con., brick and tile. About $100,000. Keith & Kurke, Fargo, archts.

Okla., Tulsa—Church—First Methodist Episcopal Church receiving bids building brick, rein.-con. and steel, rein.-con. floor-ing, concrete foundation. About $250,000. Wight & Wight, 400 1st Natl. Bldg., Kansas City, Mo. archts. Noted July 22.

Okla., Tulsa—Office—Thompson Bros., 1172 North Cheyenne St., and R. H. Hughes, 412 Robinson Bldg., receiving bids building 10 story, 100 x 200 ft., brick, rein.-con. and steel, rein.-con. flooring, rock foundation. About $750,000. H. L. Bass, 801 Hume-Mansur, Indianapolis, Ind., archt. Noted May 20.

Cal., Los Angeles — Gymnasium — Until Aug. 25, by Bd. Educ., furnishing labor and material building gymnasium on Franklin High School site, at 530 West Ave. 54. Separate bids on general contract, painting, plumbing and electric wiring. W. A. Sheldon, secy.

Ont., London—Hospital—Until Aug. 27, by R. C. Desrochers, Dept. Pub. Wks., Ottawa, building 2 story, 50 x 250 ft., concrete and brick, concrete foundation, on Wellington Rd., for Soldiers Hospital Comn. About $140,000. H. C. McBride, Molsons Bank Bldg., archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**R. I., Manville**—Church—St. James Roman Catholic Church let contract building 1 story, 85 x 170 ft., brick and steel, rock foundation, also 1 story, 25 x 40 ft. boiler house, to A. F. Smiley, Oak Hall Bldg., Pawtucket. About $100,000. Noted March 25.

★**Conn., Manchester** — Recreation and School — Ninth School Dist. let contract building 2 story, 65 x 110 ft., concrete, steel and brick, rein.-con. flooring, concrete foundation, on Cedar St., to Flynt Bldg. & Constr. Co., 356 Main St., Palmer, Mass. About $200,000. Noted July 22.

★**N. Y., Brooklyn**—Bank and Lodge—Lincoln Savings Bank, 527 Bway., will alter and build extensions to brick, steel and stone, concrete foundation. About $200,000. Work will be done by day labor.

★**N. Y., New York**—Courthouse—Bd. Estimate & Apportionment, Municipal Bldg., let steel contract building courthouse on Center, Worth, Baxter and Pearl Sts., to Bethlehem Steel Bridge Co., Bethlehem, Pa., $1,280,000; concrete and brick, to D. E. Connors, 15 West 91st St., $658,000 and $880,000 respectively; limestone, to H. Hamlin, 417 East 103rd St., $2,372,000. Noted July 22.

★**N. Y., New York**—Hotel—Hotel Des Artistes, 1 West 67th St., let contract altering, brick, steel and stone, to Robert Constr. Co., 110 West 17th St., N. Y. About $100,000. Noted June 24.

★**N. Y., New York**—Hotel—West 48th St. Realty Co., c/o Gronenberg & Leuchtag, archts., 303 5th Ave., will build 14 story, brick, steel and stone, concrete foundation, on 43rd St. and 8th Ave. About $1,500,000. Work will be done by day labor.

★**Pa., New Wilmington**—Gymnasium—Westminster College let contract building 2 story, 77 x 105 ft., brick and steel, rein.-con. flooring, concrete foundation, to Parish Bros., 217 Wick Ave., Youngstown, O. About $150,000. Noted July 22.

★**Tenn., Knoxville** — Housing — Holstone Mfg. Co. let contract building several frame houses for workmen, to Aberthaw Constr. Co., 24 School St., Boston. About $125,000.

★**O., Cleveland**—Commercial—H. D. Koblitz, 1310 Huron Rd., let contract building 4 story, 46 x 130 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Euclid Ave. near East 45th St., to S. W. Emerson Co., 1900 Euclid Ave. About $200,000. Noted May 6.

★**O., Cleveland** — Exchange — Cleveland Telephone Co., Engrs. Bldg., let contract building 3 story, 40 x 150 ft., rein.-con., steel and brick addition, rein. con. flooring, concrete foundation, on West 65th St. and Guthrie Ave., to Crowell & Little Constr. Co., 1951 East 57th St. About $200,000.

★**O., Columbus**—Bank—J. W. Dinsmore, 344 West State St., let contract building 2 story, 41 x 62 ft. bank, on West Broad St., to J. A. Maxwell, 194 Souder Ave. About $100,000.

★**O., East Cleveland** (Cleveland, P. O.)—Church—United Brethren Church, 13917 Alder Ave., let contract building 1 story, 60 x 60 ft., brick and steel, brick foundation, on Hayden Ave., to J. Baroush, 5533 Osage Ave., Cleveland. About $100,000.

★**O., East Cleveland** (Cleveland P. O.)—School—Bd. Educ., Williamson Bldg., let contract building 2 story, 12 room, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Mayfair Rd., to Tenbusch-Parker Constr. Co., Union Bldg., Cleveland, $168,662. Noted Aug. 12.

★**O., Sidney**—Theatre—C. B. De Weese Co. will build 3 story, 83 x 166 ft. theatre. About $200,000. Work will be done by day labor. Noted Aug. 5.

O., Zanesville—Clubhouse—Amer. Rolling Mill Co., Linden Ave., received bids Aug. 2, building 3 story, rein.-con., brick and steel, rein.-con. flooring, from Taylor & Linn, Zanesville, $200,000; Dunsweiler Bros., Zanesville, $210,000. Noted July 29.

★**Ind., Indianapolis**—Sales—See "Industrial Works."

★**Ill., East St. Louis**—Office—See "Industrial Works."

★**Ill., Hillsboro**—High School—Bd. Educ. let contract building 2 story, 150 x 150 ft., concrete and brick, rein.-con. flooring, to J. Gedney, Arcade Bldg., St. Louis, $201,214.

★**Ill., Monticello**—School—J. C. Llewellyn, archt., 38 South Dearborn St., Chicago, let general contract to A. Nelson, 36 West Rand St., Chicago, building 2 story, 111 x 172 ft., brick, stone and steel, concrete foundation, for Bd. Educ. About $200,000. Noted July 29.

★**Wis., South Milwaukee**—Club and Recreation—Bucyrus Co. let contract remodeling brick and concrete club house and recreation building, rein.-con. flooring, to H. Schmitt & Son, 430 Farwell Ave., Milwaukee. About $100,000.

★**Wis., Tomah**—High School—Bd. Educ. let contract building 3 story, 50 x 80 ft. addition also 1 story, 30 x 55 ft. boiler house, concrete and brick, rein.-con. flooring, concrete foundation, to E. F. Miller, Tomah. About $100,000; cost plus percentage basis. Noted July 22.

★**Minn., St. Paul**—School—Bd. Educ. will build 2 story, 60 x 128 ft., rein.-con. and brick addition to Randolph Heights School, on Hamline Ave. between Jefferson and Lansing Sts. About $100,000. Work will be done by day labor. Noted June 29.

★**Kan., Florence**—Hotel—Florence Hotel Co. let contract building 3 story, 85 x 180 ft., brick and stone, on Main St., to Reyburn Constr. Co., 609 Waldheim Bldg., Kansas City, Mo. About $100,000.

★**Kan., Salina**—Temple—Masonic Temple Assn. let contract building 5 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Eberhardt Constr. Co., Salina. About $750,000; cost plus percentage basis. Noted June 17.

★**S. D., Brookings** — Bank and Office — Midland State Bank let contract building 2 story, 28 x 85 ft., rein.-con. and brick, to L. F. Dow Co., 381 Jackson St., St. Paul, Minn. About $100,000. Noted July 8.

★**Neb., Omaha**—Law and Dental—Creighton University, 25th and California Sts., let contract constructing foundations for 4 story, 60 x 140 ft. law and 3 story, 60 x 120 ft. dental buildings, brick and stone foundations, to Raymond Concrete Piling Co., 90 West St., New York City. About $400,000. Noted March 25.

★**Mo., St. Louis**—Offices—Knight, Gamble & Co., 4th and Olive Sts., let contract remodeling brick building for offices, stone foundation, on Olive St., to J. S. Albericl Co., Boatmans Bank. About $100,000.

★**Tex., Austin** — Church — University Baptist Church let contract building 2 story, 90 x 114 ft., brick, rein.-con. and steel, rein.-con. flooring, on 22nd and Guadalupe Sts., to W. C. Hedrick Co., Guadalupe and 22nd Sts. About $120,000; cost plus percentage basis. Noted April 22.

Tex., San Antonio—Store—F. W. Woolworth Co., 322 East Houston St., received bids Aug. 9, building 3 story, 60 x 100 ft., rein.-con., on Houston St. and Alamo Plaza, from J. De Puy, Bedell Bldg., $184,080; Coleman & Jenkins, Gunter Bldg., $184,200; C. Schoenfeld, 324 Hunstock Ave., $204,700.

★**B. C., Victoria**—Store—Hudson Bay Co., 1120 Wharf St., let contract building 8 story rein.-con., brick and tile on Douglas and Fishgourd Sts., to Carter, Hall & Aldinger Co., 1010 Union Bank Bldg., Winnipeg, Man. About $600,000. Noted Feb. 12.

Federal Government Work

PROPOSED WORK

Del., Wilmington—Dredging—U. S. Engr. Office rejected bids received July 15, dredging waterway between Rehoboth and Delaware Bays. Noted June 17.

Va., Hampton Roads—Seaplane Runway—Spec. 4267—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Va., Quantico—Incinerator—Spec. 4266—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install, here.

S. C., Paris Island—Improving Hospitals—Spec. 4262—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to improve, here.

La., New Orleans—Dredging—U. S. Engr. Office, Custom House, rejected only bid received July 30, dredging Calcasieu Sect. Intracoastal Waterway, etc. Noted July 1.

Cal., San Diego—Fleet Supply Base—Spec. 4264—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

H. T., Wailupe—Radio Building—Spec. 4259—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

BIDS DESIRED

Pa., Phila.—Lumber Storehouse—Until Aug. 31, at office of H. J. Lumsden, officer in charge of constr., Frankford Arsenal, building here; advertised in this issue.

D. C., Wash.—Bridge—Until Aug. 31, by Dept. of Interior, at office of Indian Affairs, building steel highway bridge over Two Medicine River, on Blackfoot Reservation. C. Sells, comr.

D. C., Wash.—Repairing Wharf and Slips—Spec. 4260—Until Aug. 25, by Bureau Yards & Docks, Navy Dept., repairing Wharf 3 and Slips 2 and 3. Noted July 29.

D. C., Wash.—Telephone Motor Generators—Until Aug. 26, by Chief Signal Officer, at Signal Corps, U. S. Army, furnishing five 1 kw. for 115 volts, under P. R. 4246. 27 C. P.

Fla., Jacksonville—Jetty—Until Sept. 15, by U. S. Engr. Office, building at entrance to St. Johns River; advertised in this issue.

La., New Orleans—Jetty—Until Sept. 16, by U. S. Engs. Office, Customhouse, extending jetty at mouth of Southwest Pass of Mississippi River; advertised in this issue.

Ill, Great Lakes—Harbor Development—Spec. 4136—Until Sept. 25, by Bureau Yards & Docks, Navy Dept., Wash., D. C., for developing harbor, here, to include dredging and filling, building breakwater, pier, quay walls, etc.; $10 deposit required for plans and spec. Noted July 22.

Okla., Tahlequah—School and Assembly Hall—Until Aug. 30, by C. Sells, comr. Indian Affairs, Wash., D. C., furnishing labor and material building at Cherokee Orphan Training School, here.

Utah, Ogden—Buildings, etc.—Until Sept. 4, at office of Constr. Quartermaster, 317 Colonel Hudson Bldg., constructing 60 buildings, water system, electrical layout and other utilities, near here.

Cal., Mare Island—Mechanics Shop, Filling and Shell House and Magazine—Spec. 4127—Until Sept. 1, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here; $10 deposit required for plans and spec.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. H., Portsmouth—Boiler and Stokers—Spec. 4124—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Aug. 11, removing from old hickory powder plant, Jacksonville, Tenn., and re-erecting same, at Navy Yard, here, (1) work complete, from F. Eisinger, 141 7th Ave., Brooklyn, (1) $26,553 (150 days), (2) $4,395, (3) $2,188; Shevlin Eng. Co., 110 West 34th St., New York City, (1) $64,758 (150 days), (2) $15,357 (45 days), (3) $4,000 (45 days), (4) $15 per m. Noted July 22.

Mass., South Boston—Removing and Re-erecting Boiler Shop—Spec. 4256—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids removing from Providence, R.

Federal Government Work (Continued)

i. and re-erecting same, here, (1) work complete, from G. T. Britt, 37 Church St., Buffalo, N. Y., (1) $87,500 (time as specified), (2) deduct $7,900, (3) add $4,200 (12 days); Hyde & Baxter, 1311 G St., N. W., Wash., D. C., (1) $91,880 (100 days), (2) deduct $2,000, (3) add $5,800 (15 days).

Mass., South Boston—Tracks—Spec. 4196—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Aug. 11, completing crane and railroad tracks for dry dock, at U. S. Naval Dry Dock, here, from M. Seretto, 3 Freemont Row, Boston, $187,500 (120 days); Hyde & Baxter, 1311 G St., Wash., D. C., $330,000 (300 days); Holbrook, Cabot & Rollins, 6 Beacon St., Boston, $265,000 (120 days). Noted July 22.

★**R. I., Providence**—Electric Conduit Line and Manholes—U. S. Engr. Office, War Dept., Wash., D. C., let contract building, in Coast Defenses at Narragansett Bay, to G. T. Seabury, Inc., Providence, $21,000.

★**N. Y., New York**—Dredging—U. S. Engr. Office, 39 Whitehall St., let contract dredging in Mattituck Harbor, to Eastern Long Island Improving Co., Mattituck, $7,650.

★**N. J., Dover** (Picatinny)—Buildings, etc.—Constr. Div., War Dept., Wash., D. C., let contract to W. M. Southerland Bldg. & Constr. Co., constructing Bldg. 117, cost $133,000, Bldgs. 326, 327, 328 and 329, cost $57,520; to Lustig & Weil, 103 Park Ave., New York City, Bldgs. 324, 325, 330 and 331, building sewers and installing steam heating systems, $61,500 and $42,300 respectively, Explosive Bldg. D, $76,372; to G. Allen Co., 1511 3rd Ave., New York City, building power plant, $314,103; to J. F. Creig, building water supply system, $36,365; to H. B. Missillier, constructing Bldgs. 200 and 201, cost $47,900.

★**Pa., Phila.**—Small Arms Shop—H. J. Lumsden, officer in charge of constr., Frankford Arsenal, let contract building 3 story, 82 x 200 ft. extension, on Tacony, Walbach, Mordecai and Dearborn Sts., to M. Melody & Sons, 25 North Massachusetts Ave. About $246,000.

★**Pa., Pittsburgh**—Steel Hull Derrick Boat—U. S. Engr. Office, 2111 Farmers Bank Bldg., let contract furnishing and delivering one 50 ton non-propelling steel hull derrick boat, to Dravo Contg. Co., Diamond Bank Bldg., $152,500. Noted July 1.

★**D. C., Wash.**—Boiler and Piping—Spec. 4242—Bureau Yards & Docks, Navy Dept., let contract building, here, to W. G. Cornell Co., 923 12th St., N. W., $8,586 (80 days) Noted July 15.

D. C., Wash.—Electric Traveling Cranes—Spec. 4239—Bureau Yards & Docks, Navy Dept. received bids July 28, furnishing and installing 40 ton electric traveling bridge cranes for shipbuilding slips at Navy Yards, Philadelphia, New York and Norfolk, Va., (1) work complete, from Morgan Eng. Co., Alliance, O., (2) $79,950 each, using Westinghouse equipment, $77,450 each using General Electric equipment (165 days); Niles, Bement Pond, 111 Bway., New York City, (2) $313,530 (time as specified); Heyle & Patterson, Inc., 50 Water St., Pittsburgh, (2) $323,800 (240 days). Noted July 15.

Va., Hampton Roads—Underground Electric Distributing System—Spec. 4240—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Aug. 11, installing in 3 storehouses in Block Z, at Naval Operating Base, here, from J. R. Proctor, 74 Cortlandt St., New York City, $34,880 (180 days); H. E. Crook Co., 28 Light St., Baltimore Md., $41,689 (150 days); G. E. Eng. Co., 22 Laight St., New York City, $41,778 (250 days). Noted July 22.

★**Va., Norfolk**—Paint and Oil Storehouse—Spec. 4222—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to J. H. Pierce, 629 Law Bldg., $68,171 (160 days). Noted Aug. 5.

Fla., Tampa—Bulkhead and Wharves—U. S. Engr. Office, War Dept., Wash., D. C., let contract building, here, to J. R. Chanbliss, Tampa, $5,335.

★**Kan., Ft Leavenworth**—Kitchenettes, etc.—Constr. Div., War Dept., Wash., D. C., let contract building 74 kitchenettes, to J. G. Barnes, Leavenworth, $36,868; electric ranges, to Tholen Bros., $8,600; converting Bldg. 102 into officers' quarters, to B. E. Baer, $25,034.

★**Cal., San Francisco**—Stone—U. S. Engr. Office, Fair Bldg., let contract furnishing stone for Humboldt Bay Jetties, to I. N. Minor, Arcata, $184,400

Miscellaneous

PROPOSED WORK

Field Houses — Providence, R. I. — Bd. Contr. & Supply plans to build 3 field houses at Richardson, Bucklin and Joslin St. Playgrounds. About $30,000. Private plans.

Transformer Station—New York, N. Y.—New York Edison Co., Irving Pl. and 15th St., having plans prepared by W. Whitehill, archt., 12 Elm St., for brick and concrete, rein.-con. flooring, concrete foundation, on 75th St. About $500,000.

Jetty—Longport, N. J.—Bore. plans to build stone jetty to extend 2,000 ft. into ocean. About $200,000. R. Harcourt, mayor.

Mixing Device, etc.—Columbus, O.—Ironclay Brick Co., 64 Ruggery Bldg., soon receives bids for mortar mixing device with device with elevators, conveyors and chutes. J. M. Adams, purch. agt.

Dam — Cannon Falls, Minn. — Cannon Falls Milling Co., 822 Flour Exch., Minneapolis, plans to build dam over Cannon River. E. O. Holmstead, mgr.

Paving Material—St. Paul, Minn.—City rejected bids July 26 furnishing 3,371 bbl. portland cement, 2,608 cu.yd. crushed rock for concrete base, 488 cu.yd. binder stone, 282 ton asphalt cement, 296 ton limestone dust, 135 ton trap rock, etc. Noted Aug. 12.

Road Oiler and Oil Storage Tanks—St. Paul, Minn.—G. Reis, aud. Ramsey Co., receives bids in fall for road oiler mounted on tank and road oil storage tanks. About $12,900 and $10,350 respectively. R. R. Godfrey, Court House, engr.

BIDS DESIRED

Locomotive Crane—Bridgeport, Conn.—Bilton Machine Tool Co. receiving bids for one 15 ton locomotive crane with magnet and clamshell bucket.

Heating and Ventilating Apparatus—New York, N. Y.—Until Aug. 23, by C. B. J. Snyder, supt. school bldgs., Municipal Bldg., altering and repairing heating and ventilating apparatus in P. S. 119, on 133rd and 134th Sts., east of 8th Ave. and P. S. 172, on 108th and 109th Sts., east of 2nd Ave., for Bd. Educ., 500 Park Ave.

Road Materials—New York, N. Y.—Until Aug. 24, by H. H. Curran, pres. Manhattan Boro., furnishing and delivering 200,000 gal. refined asphalt, 10,000 bags Portland cement, 1,500 cu.yd paving sand, and castings as called for in contract.

Window Guards—Thiells, N. Y.—Until Aug. 23, by F. A. Vanderlip, pres. Bd. Mgrs., Letchworth Village, 7 Wall St., New York City, furnishing window guards for storehouse, bakery, refrigerating plant and cold storage building, here. L. F. Pilcher, Albany, state archt.; advertised in this issue.

Riprap—Cape May, N. J.—Until Aug. 24, by Bd. Comrs., furnishing 2,400 ton riprap, f.o.b. cars at quarry. H. W. Bell, city engr.; advertised in this issue.

Heating and Ventilating System—Washington, D. C.—Until Aug. 26, by Dist. Comrs., Dist. Bldg., installing heating and ventilating system in Petworth School and addition, on 8th and Sheperd Sts., N. W.; advertised in this issue.

Sanitary Equipment—Columbus, O.—Until Sept. 3, by Bd. Educ., furnishing sanitary equipment for schools on Chicago, Franklington, Spring and Highland Sts., 1st Livingston, Michigan, Southwood, Eastwood and Bellows Aves. and South High School. About $80,000. D. Riebel & Sons, New 1st Natl. Bank Bldg., archts.

Breakwater — Chicago Ill. — Until Sept. 22, by South Park Comrs., 57th St. and Cottage Grove Ave., building breakwater along Lake Michigan from 11th Pl. to 24th St. J. F. Neil, secy.; advertised in this issue. Noted June 29.

Dike—St. Louis, Mo.—Until Sept. 7, by Bd. Pub. Serv., furnishing labor and material for building stone and timber dike at Low Service Pumping Sta. Chain of Rocks. About $75,000. E. E. Wall, City Hall, engr. Noted July 15.

Sluice Gates—Sacramento, Cal.—Until Sept. 2, by M. J. Desmond, city clk., furnishing sluice gates for city pumping and filtration works; advertised in this issue.

Transformers, etc.—Sacramento, Cal.—Until Sept. 30, by M. J. Desmond, city clk., furnishing transformers, centrifugal pumps, induction motors, intake and pumping works, electric crane, switchboard and force mains for city pumping and filtration works; advertised in this issue.

Breakwater—Quaco, N. B.—Until Sept. 2, by Dept. Pub. Wks., Ottawa, Ont., rebuilding eastern breakwater, involving 2[illegible] round timber cribwork with stone fill and 8 x 8 in. spruce sheathing. About [illegible]000. E. Lafleur, Ottawa, engr.

Wharf—Ottawa, Ont.—Until Sept. [illegible] Dept. Pub. Wks., building 21 x 80 ft. tension to western wharf, at Notre Dame des Sept Douleurs, open faced crib with stone ballast. About $25,000.

Railway Ties—Toronto, Ont.—Until [illegible] 3½, by E. Langham, purch. agt., Canadian Natl. Ry., 27 Wellington St. E., Toronto, furnishing 1,500,000 railway ties, to be delivered between Dec. 1, 1920 and Nov. 1921.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Castings—Boston, Mass.**—City let contract furnishing 70,050 lb. No. 2 castings to Mechanics Iron Co., 38 Kemble St., at $0.065 per lb.

★**Edgestone, etc.—Boston, Mass.**—City let contract furnishing 40,000 lin.ft. straight edgestone, 3,600 lin.ft. circle stone and 200 lin.ft. small corner pieces, to H. E. Fletcher Co., 31 State St.

★**Ferry Boat—Boston, Mass.**—Bridge & Ferry Div. let contract building ferry boat to Groton Iron Wks., Eastern Point, Groton, Conn., $379,950. Noted July 29.

★**Portable School Houses—Boston, Mass.**—City let contract building 15 portable school houses to P. F. and J. J. Lamont, 1105 Dorchester Ave., Dorchester, $65,010. Noted Aug. 5.

★**Coal Pockets—Holyoke, Mass.**—City let contract for alterations to concrete coal pockets, etc., at Municipal Electric Plant on Cabot St. to P. J. Kennedy & Co., Inc., 464 Maple St. About $50,000.

★**Playground, etc.—Holyoke, Mass.**—Farr Alpaca Co., Jackson St., let contract building playground and athletic field on old Berkshire Park grounds, to S. M. Green Co., 293 Bridge St., Springfield. About $25,000.

★**Dam, etc.—Wheelwright, Mass.**—G. W. Wheelwright Paper Co., 4th St., Fitchburg, let contract building concrete dam, flume and sedimentation plant, to H. P. Cummings Constr. Co., 14 Prospect St., Ware. About $25,000.

★**Transformer Station—New York, N. Y.**—New York Edison Co., Irving Pl. and 15th St., will build rein.-con. and steel, on Bowery. About $150,000. Work will be done by day labor under supervision of W. Whitehill, archt., 12 Elm St. Noted June 3.

★**Pier—Camden, N. J.**—Camden Harbor Comn. let contract building rein.-con. and steel pier, 472 ft. long and 102 ft. wide, to Tilt-Hargan Co., 90 West Bway., New York City, $201,799.

Generator, Condensers, etc.—Cleveland, O.—City received bids furnishing one 10,000 kw. steam turbo-generator, condensers, auxiliaries and switchboard, from Merchants' Light & Heat Co., Washington and Meridian Sts., Indianapolis, Ind., $284,350; Westinghouse Electric Mfg. Co., Union Bank Bldg., Pittsburgh, $285,567; Allis-Chalmers, Park Bldg., Pittsburgh, $300,000.

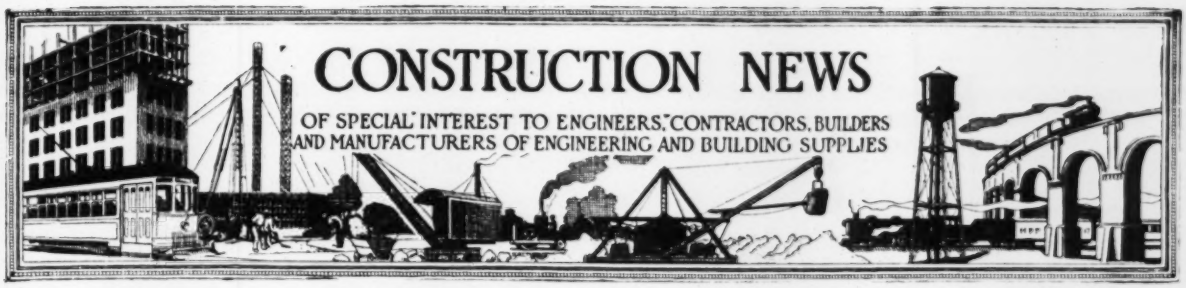
★**Conduits, etc.—Detroit, Mich.**—Pub. Lighting Com., 40-56 Atwater St., let contract furnishing labor and material building and installing conduits, manholes, handholes, and lamp post foundations in sections of Kercheval Junction and 14th Aves., Magnolia and Butternut Sts., to Contg. & Material Co., 3219 South Michigan Ave., Chicago, $325,447. Noted July 8.

★**Special Castings—Detroit, Mich.**—Fire Dept., West Larned St., let contract to Amer. Car & Fdry. Co., West Jefferson and Clark Aves., furnishing one thousand and fifty 6 and 8 in. and four hundred and five 4 and 6 in. c.i. sleeves and tees, 90, 45 and 22½ degree bends, at $7.50 per 100 lb.; to Flower Valve Mfg. Co., Clayton and Parkinson Aves., six hundred 6 in. water gates, at $39.25 each, total, $23,550, and 600 fire hydrants at $175 each, $105,000.

★**Grain Elevator—Marion, Kan.**—Marion Milling Co. let contract building grain elevator, capacity 20,000 bu., to O. F. Roberts, Sabetha. About $25,000.

★**White Way and Street Lighting System—Watertown, S. D.**—City let contract installing white way and street lighting system for business district to Electric Constr. Co., 174 East 6th St., St. Paul, Minn., $5[illegible]800. Noted Aug. 12.

★**Wire — Cape Girardeau, Mo.** — Little River D.D. let contract furnishing 1,260,000 sq.ft. No. 9, 6 in. mesh wire, to Pittsburgh Steel Co., Union Arcade, Pittsburgh, Pa



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 1	Springwells, Mich.	Aug. 19
Sept. 2	Allendale, N. J. Adv. Aug. 19 and 26.	Aug. 26
Sept. 7	Hightstown, N. J. Adv. Aug. 26.	Aug. 26
Sept. 8	Tunica, Miss.	Aug. 19

SEWERS

Aug. 31	Portland, Me. Adv. Aug. 26.	Aug. 26
Aug. 31	St. Louis, Mo.	Aug. 12
Aug. 31	Pawtucket, R. I. Adv. Aug. 19.	Aug. 19
Sept. 1	Haxton, Col.	Aug. 26
Sept. 1	Yuma, Col.	Aug. 26
Sept. 7	Patterson, N. J.	Aug. 26
Sept. 7	Plainfield, N. J. Adv. Aug. 26.	Aug. 26
Sept. 7	Wash., D. C.	Aug. 19
Sept. 9	Wabasso, Minn.	Aug. 26
Oct. 4	Pontiac, Mich.	Aug. 26

BRIDGES

Aug. 30	Ebensburg, Pa.	Aug. 19
Aug. 31	Wyoming	Aug. 26
Aug. 31	New Jersey Adv. Aug. 12 and 19.	Aug. 19
Aug. 31	Alabama	Aug. 26
Sept. 1	Harrisburg, Pa.	Aug. 26
Sept. 2	Pocahontas, Ia.	Aug. 26
Sept. 3	Mt Vernon, N. Y. Adv. Aug. 19 and 26.	Aug. 19
Sept. 3	Topeka, Kan.	Aug. 26
Sept. 3	Moundsville, W. Va.	Aug. 19
Sept. 4	Crookston, Minn.	Aug. 26
Sept. 6	Nenana, Alaska	Aug. 5
Sept. 6	Burlington, Ont.	Aug. 12
Sept. 6	Indiana	Aug. 26
Sept. 7	Nanty-Glo, Pa.	Aug. 26
Sept. 7	Indiana	Aug. 26
Sept. 10	Victoria, B. C.	Aug. 12
Sept. 13	Belleville, Kan.	Aug. 26
Sept. 14	Lock Haven, Pa. Adv. Aug. 26.	Aug. 26
Sept. 14	Perry, Ga.	Aug. 26
Sept. 15	Providence, R. I. Adv. Aug. 26.	Aug. 26
Sept. 15	Iola, Kan.	Aug. 26
Sept. 15	Portsmouth, N. H. Adv. Aug. 12 and 19.	Aug. 12
Sept. 30	New Orleans, La.	Aug. 26

STREETS AND ROADS

Aug. 29	North Bergen, N. J.	Aug. 5
Aug. 30	Richfield, Minn.	Aug. 19
Aug. 30	Camden, N. J.	Aug. 19
Aug. 30	Princeton, W. Va.	Aug. 19
Aug. 30	Eudora, Ark	Aug. 19
Aug. 30	Ft. Scott, Kan.	Aug. 26
Aug. 30	Newton, Ia. Adv. Aug. 26.	Aug. 26
Aug. 30	St. George, S. I., N. Y.	Aug. 26
Aug. 30	Rayville, La.	Aug. 26
Aug 31	St. George, S. I., N. Y.	Aug. 26
Aug. 31	New York, N. Y.	Aug. 26
Aug. 31	Cherokee, Ia.	Aug. 26
Aug. 31	Maryland Adv. Aug. 19 and 26.	Aug. 26
Aug. 31	Cleburne, Tex.	Aug. 26
Aug. 31	Ionia, Mich.	Aug. 26
Aug. 31	Long Branch, N. J. Adv. Aug. 12 to 26.	Aug. 19
Aug. 31	New Jersey Adv. Aug. 12 and 19.	Aug. 19
Aug. 31	Columbus, O.	Aug. 19
Aug. 31	South Dakota	Aug. 19
Sept. 1	Wilson, N. C. Adv. Aug. 12 to 26.	Aug. 12
Sept. 1	Madison, S. D.	Aug. 19
Sept. 1	Brooklyn, N. Y.	Aug. 26
Sept. 1	Missouri	Aug. 26
Sept. 1	Valleyfield, Que.	Aug. 19
Sept. 1	Hughesville, Pa.	Aug. 19
Sept. 1	Michigan	Aug. 26
Sept. 2	Muskegon, Mich.	Aug. 26
Sept. 3	Olathe, Kan.	Aug. 5
Sept. 3	Jourdanton, Tex.	Aug. 19
Sept. 3	Long Island City, N. Y.	Aug. 26
Sept. 3	Hillsdale, Mich.	Aug. 26
Sept. 3	Grosse Pointe Park (Detroit P. O.), Mich.	Aug. 26
Sept. 4	Crookston, Minn.	Aug. 26
Sept. 4	Hillsboro, Tex.	Aug. 26
Sept. 4	Ft. Wayne, Ind.	Aug. 19
Sept. 6	Indiana	Aug. 19
Sept. 6	Bethany, Mo	Aug. 26
Sept. 7	Indiana	Aug. 19
Sept. 7	Greenfield, Ind.	Aug. 12
Sept. 7	Aitkin, Minn.	Aug. 12
Sept. 7	Atlanta, Mich.	Aug. 26
Sept. 7	Carlton, Minn.	Aug. 26
Sept. 7	Red Bank, N. J. Adv. Aug. 26.	Aug. 26
Sept. 8	Cottonwood Falls, Kan.	Aug. 12
Sept. 8	North Arlington (Arlington P. O.), N. J.	Aug. 26
Sept. 9	Dodge City, Kan.	Aug. 19
Sept. 9	Jersey City, N. J.	Aug. 26
Sept. 10	Shakopee, Minn.	Aug. 19
Sept. 10	New Jersey Adv. Aug. 26.	Aug. 26
Sept. 13	Jasper, Tex.	Aug. 26
Sept. 13	Minneapolis, Minn.	Aug. 26
Sept. 14	Fergus Falls, Minn.	Aug. 19
Sept. 14	Charleston, W. Va.	Aug. 19
Sept. 14	Garnett, Kan.	Aug. 19
Sept. 16	Girard, Kan.	Aug. 26
Sept. 21	St. George, S. C.	Aug. 12

RAILWAYS

Sept. 3	Nova Scotia	Aug. 26

EXCAVATION AND DREDGING

Aug. 30	Harlan, Ia.	Aug. 26
Aug. 31	Fairmont, Minn.	Aug. 26
Aug. 31	Jersey City, N. J.	Aug. 26
Sept. 1	Belzoni, Miss.	Aug. 26
Sept. 2	Covington, Tenn.	Aug. 26
Sept. 3	Marshalltown, Ia.	Aug. 19
Sept. 4	Crookston, Minn.	Aug. 26
Sept. 10	Corsica, S. D. Adv. Aug. 19 and 26.	Aug. 19

INDUSTRIAL WORKS

Aug. 31	Wrentham, Mass.	Aug. 26
Aug. 31	New Orleans, La. Adv. Aug. 19 and 26.	Aug. 19
Sept. 1	Hutchinson, Kan.	Feb. 19
Sept. 1	Long Island City, N. Y.	Aug. 26
Sept. 7	New Orleans, La.	Aug. 26
Sept. 7	New York, N. Y.	Aug. 26
Sept. 8	Minnewaukon, N. D.	Aug. 26
Sept. 15	Ossining, N. Y.	Aug. 19
Sept. 29	Buffalo, N. Y.	Aug. 26

BUILDINGS

Aug. 30	Petersburg, Ind.	Aug. 12
Aug. 30	Austin, Tex.	Aug. 26
Aug. 30	Decorah, Ia.	Aug. 26
Aug. 30	McKeesport, Pa.	Aug. 19
Aug. 31	Manchester, N. H.	Aug. 12
Sept. 1	Cedar Rapids, Ia.	Aug. 5
Sept. 2	Jeanette, Pa.	Aug. 12
Sept. 3	Ft. Wayne, Ind.	July 29
Sept. 3	Ollie, Ia.	Aug. 12
Sept. 6	Detroit, Mich.	Aug. 26
Sept. 7	Hartford, Conn.	Aug. 26
Sept. 7	Marmarth, N. D.	Aug. 19
Sept. 7	Windsor, Conn.	Aug. 19
Sept. 8	Wash., D. C.	Aug. 19
Sept. 8	Detroit, Mich.	Aug. 26
Sept. 10	West Hartford (Hartford P. O.), Conn.	Aug. 19
Sept. 10	Great Neck, N. Y.	Aug. 26
Sept. 14	Montevideo, Minn.	Aug. 26
Sept. 14	Glassboro, N. J.	Aug. 26
Sept. 15	Edinburg, Tex.	Aug. 26
Sept. 15	Ossining, N. Y.	Aug. 26
Sept. 15	Denver, Col.	Aug. 12
Sept. 15	Denver, Col.	Aug. 5
Sept. 20	Brooklyn, N. Y.	Aug. 26

FEDERAL GOVERNMENT WORK

Aug. 30	Stern Wheel Steamboat — St. Louis, Mo.	Aug. 5
Aug. 30	School and Assembly Hall —Tahlequah, Okla. Adv. Aug. 12 to 26.	Aug. 19
Aug. 30	Road Work—Oregon	Aug. 26
Aug. 31	Remodeling Post Office—Astoria, Ore.	Aug. 12
Aug. 31	Bridge—Wash., D. C.	Aug. 19
Aug. 31	Lumber Storehouse—Philadelphia, Pa. Adv. Aug. 19 and 26.	Aug. 19
Sept. 1	Mechanics Shop, Filling, Shell and Magazine House —Spec. 4121—Mare Island, Cal.	Aug. 19
Sept. 3	Post Office—Columbia, S. C.	Aug. 5
Sept. 3	Levee Work — Vicksburg, Miss. Adv. Aug. 26.	Aug. 26
Sept. 4	Building, etc. — Ogden, Utah Adv. Aug. 19 and 26.	Aug. 19
Sept. 7	Removing Wreck—Wilmington, Del. Adv. Aug. 26.	Aug. 26
Sept. 8	Improving Hospital—Spec. 4262—Paris Island, S. C.	Aug. 26
Sept. 9	Structural Steel—Louisville, Ky. Adv. Aug. 19 and 26.	Aug. 26
Sept. 13	Barges—Nashville, Tenn. Adv. Aug. 1 9and 26.	Aug. 26
Sept. 14	Electric Freight Lift etc.—St. Paul, Minn.	Aug. 26
Sept. 15	Lifeboat House and Accessories—Marblehead, O.	Aug. 26
Sept. 15	Pontoon Catamarans—Jacksonville, Fla. Adv. Aug. 26.	Aug. 26
Sept. 15	Jetty—Jacksonville, Fla. Adv. Aug. 19 and 26.	Aug. 26
Sept. 16	Jetty—New Oreans, La. Adv. Aug. 19 and 26.	Aug. 19
Sept. 25	Harbor Development—Spec. 4136—Great Lakes, Ill.	Aug. 19

MISCELLANEOUS

Aug. 31	Wharf—Owen Sound, Ont.	Aug. 12
Aug. 31	Railway Ties — Toronto, Ont.	Aug. 19
Aug. 31	Riprap — Cape May City, N. J. Adv. Aug. 26.	Aug. 26
Aug. 31	Tank—Hightstown, N. J. Adv. Aug. 26.	Aug. 26
Aug. 31	Paving and Bridge Materials —Cleburne, Tex.	Aug. 26
Aug. 31	Swimming Pool, etc.—Pittsburgh, Pa.	Aug. 26
Aug. 31	Road Materials—New York, N. Y.	Aug. 26
Aug. 31	Yard—New York, N. Y.	Aug. 26
Sept. 1	Street Lighting System — Wichita Falls, Tex.	Aug. 26
Sept. 1	Heating System, etc.—Syracuse, N. Y.	Aug. 26
Sept. 2	Pier and Approach—Brooklyn, N. Y.	Aug. 26
Sept. 2	Pier—New York, N. Y.	Aug. 26
Sept. 2	Breakwater—Quaco, N. B.	Aug. 19
Sept. 2	Sluice Gates—Sacramento, Cal.	Aug. 19
Sept. 3	Wharf—Ottawa, Ont.	Aug. 19
Sept. 3	Sanitary Equipment—Columbus, O.	Aug. 19
Sept. 3	Motor Driven Trucks, etc. —New York, N. Y.	Aug. 26

Bids Close		See Eng. News-Record
Sept. 3	Underground Cables—New York, N. Y.	Aug. 26
Sept. 6	Retaining Wall, etc.—Cleveland, O.	Aug. 12
Sept. 7	Dikes—St. Louis, Mo.	Aug. 19
Sept. 7	Wharf—Thessalon, Ont.	Aug. 26
Sept. 8	Breakwater—West Chezzetcook, N. S.	Aug. 26
Sept. 8	Installing Domestic Hot Water System—Bath, N. Y.	Aug. 26
Sept. 9	Terminal—Buffalo, N. Y. Adv. Aug. 5 to 26.	Aug. 12
Sept. 9	Terminal — Rouses Point, N. Y. Adv. Aug. 5 to 26.	Aug. 12
Sept. 14	Foundation—Phila., Pa. Adv. Aug 26.	Aug. 26
Sept. 15	Lighting Equipment—Detroit, Mich.	Aug. 26
Sept. 21	Dam, Pump House, etc.—Norfolk, Va. Adv. Aug. 26	Aug. 26
Sept. 22	Breakwater—Chicago, Ill. Adv. Aug. 19 and 26.	Aug. 19
Sept. 30	Transformers, etc.—Sacramento, Cal.	Aug. 19

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Brockton—City plans to build filter bed. About $150,000.

Md., Aberdeen—See "Sewers."

Fla., Clermont—City voted $30,000 bonds to build waterworks system.

La., Cedar Grove—Town voted $125,000 bonds to improve sewerage system. B. M. Hendricks, mayor.

Mich., Detroit—City plans to build extensions to waterworks system in Marjorie Ave. from Center Line to Van Dyke Aves., Wayburn Ave. north of Warren Ave., Guthrie Ave. west of Center Line Ave. and Warren Ave. from Alter Rd. to Wayburn Ave., to include laying 6-16 in. c.i. pipe, furnishing valves, gate boxes, etc. About $50,000. Pipe will be purchased and laid by day labor under supervision of Water Bd. Supt. T. A. Leisen, Waterworks Park, engr.

Mich., Grand Rapids—City having plans prepared building extensions to waterworks system, to include pump house, 2 pumps with 8,000,000 gal. daily capacity, addition to filtration plant, 3,000,000 gal. clear water well and head house. C. A. Paige, city engr.

Wis., New Holstein—City had plans prepared and receives bids in spring building waterworks system, to include 80,000 gal. steel tank, artesian well, 6-10 in. c.i. pipe, etc. Bonds for $40,000 voted for project. L. Heppe, clk. J. Donohue, North 8th St., Sheboygan, engr.

Minn., Eveleth—City plans to build filter plant About $50,000.

Kan., Topeka — City retained Black & Veatch, engrs., Interstate Bldg., Kansas City, Mo., to prepare plans for water purification plant. About $400,000. Noted Jan. 22.

S. D., Madison—See "Sewers."

Mo., Fayette—City rejected bids received Aug. 12, building 14,000 ft. 8 in. c.i. or wood pipe line and earth filled dam. About $75,000. Work will be readvertised. Johnson & Benham, Firestone Bldg., Kansas City, consult. engrs. Noted Aug. 12.

Okla., Fairfax—City retained V. V. Long & Co., engrs., 1300 Colcord Bldg., Oklahoma, to prepare plans for extensions to waterworks system. About $50,000. E. C. Quigley, clk.

BIDS DESIRED

N. J., Allendale—Until Sept. 2, by Boro. Council, Municipal Bldg., furnishing and laying 1,100 ft. water mains in Crescent Ave. W. H. Mallinson, chn. L. M. Young, boro. clk.; advertised in this issue.

N. J., Hightstown—Until Sept. 7 (change of date), by mayor and Boro. Council, building and equipping waterworks pumping station and connecting same to certain wells. G. P. Dennis, clk. W. S. Coulter, 114 Liberty St., New York City, engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. C., Spindale**—Stonecutter Mills Co. let contract building waterwork and sewerage systems to supply about 75 houses, to Potter & Shackleford, Greenville, S. C.

★**O., Akron**—City let contract building 10 large filter beds, each having 2,000,000 gal. daily capacity, to Garrett Constr. Co. Kent, $313,624.

★**Wash., Everett**—City received no bids Aug. 10, installing water system. About $40,000. Work will be done by day labor.

★**N. S., Windsor**—Town let contract excavating, backfilling and laying 11,000 ft. 12 in. c.i. pipe, to D. Sutherland, c/o city clk., Windsor. About $17,050.

Sewers

PROPOSED WORK

Mass., West Springfield (Springfield P. O.)—Town plans to build sewerage system in south end section. About $45,000. Stelle Bros., Mitteneague, engrs.

R. I., West Warwick—City having preliminary plans prepared by S. M. Gray, engr., 933 Grosvenor Bldg., Providence, for new sewerage system. About $500,000.

Md., Aberdeen — City voted $100,000 bonds to build sewerage and waterworks systems.

Tex., Dallas—City having surveys made for finishing uncompleted portion of 88 ft. storm sewer in Lamar St. from Cadiz St. to Terminal R.R. About $150,000. G. Fairtrace, city engr.

Ill., Maroa—Bd. Local Impvts. soon receives bids building sewerage system and sewage disposal plant, 8-30 in. pipe. About $83,000. Miller, Holbrook & Warren, Millikin Bldg., Decatur, engrs.

Minn., North Branch—A. Nordstrom, city clk., opens bids about Sept. 1, building sewerage and waterworks systems, involving 25,000 ft. sewer pipe, deep well, pump and tower tank. About $75,000. J. F. Druar, 512 Globe Bldg., St. Paul, engr. Noted July 8.

S. D., Madison—City election Sept. 14 to vote on $100,000 bonds to extend sewer and waterworks systems.

La., Cedar Grove—Town voted $125,000 bonds to improve waterworks system. B. M. Hendricks, mayor.

Mich., Pontiac—City rejected bids Aug. 9, building Sects. 1, 2 and 3 of Trunk Sanitary Sewerage System. Work will be re-advertised. C. W. Hubbell, 2348 Penobscot Bldg., Detroit, engr. Noted July 29.

Mo., Kansas City — City plans to build new sanitary sewerage system in Blue Valley Dist. Cost between $4,000,000 and $5,000,000. Contract to be let in sections.

Mo., Plattsburg—City having plans prepared building extensions to sewers in various streets. About $50,000. E. T. Archer & Co., Kansas City, Mo., engrs.

Okla., Fairfax—City retained V. V. Long & Co., engrs., 1300 Colcord Bldg., Oklahoma, to prepare plans for sewage disposal plant. About $30,000. E. C. Quigler, clk.

Okla., Lawton—City had plans prepared building complete sewage disposal plant and sewage pumping station. About $200,000. J. C. Talmadge, comr. pub. property. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma, engrs.

BIDS DESIRED

Me., Portland—Until Aug. 31, at office of E. M. Hunt, Comr. Pub. Wks., City Hall, building Sect. 4, Fall Brook Branch Sewer and 1,268 ft. 24 in. pipe in Allen Ave.; advertised in this issue.

N. J., Paterson—Until Sept. 7, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, building Sect. 21, Prospect St. Branch Sewer, here, involving 1,352 lin.ft. earth excav. and refilling, 250 cu.yd. rock excav., 150 cu.yd. Portland cement mortar, 70 cu.yd. brick masonry, 1,160 lin.ft. c.i. pipes and specials, 300 ton riprap, etc. J. H. Quigg, clk.

N. J., Plainfield—Until Sept 7, by Common Council, building storm sewer in Central Ave. J. J. Carroll, clk; advertised in this issue.

Mich., Pontiac—Until Oct. 4, by E. F. Luebke, city clk., building trunk sanitary sewers in various streets; advertised in this issue.

Minn., Wabasso—Until Sept. 9, by G. A. Goblirsch, village clk., building sewage treatment plant and general sewer Dist. Sewer 1 involves 2,272 ft. 10-12 in. pipe, 4-10 ft. deep, Laterals Dist. 1, 8,110 ft. 8-1 in. pipe, 4-12 ft. deep; general sewer, 96 ft. 12 in. pipe 4-8 ft. deep, etc. About $45,000. J. F. Druar, 512 Globe Bldg., St. Paul, engr. Noted July 8.

Col., Haxton—Until Sept. 1, by City Council, building sanitary sewers and septic tank with necessary manholes, etc., involving 20,500 ft. 8 in. vitr. clay pipe and 7,000 ft. 10 in. segmental block. About $65,000. R. D. Salisbury, 1415 East Colfax Ave., Denver, engr.

Col., Yuma—Until Sept. 1, by City Council, building sanitary sewers and septic tank with necessary manholes, etc., involving 300 ft. c.i. pipe, 20,000 ft. 8 in. and 9,200 ft. 10 in. vitr. clay pipe. About $80,000. R. D. Salisbury 1415 East Colfax Ave., Denver, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Boston—City received bids Aug. 11 building sewers in Saville and Wren Sts. from J. Barletta, $40,962; J. Todesca, Roslindale, $41,889; A. Sefalo, $42,771. Noted Aug. 12.

★**Mass., West Roxbury** (Boston P. O.)—City of Boston let contract building Saville and Wren Sts. Sewerage System to J. Barletta, 364 Hanover St., Boston, $40,000; River St. Sewerage System to F. Drinkwater, 35 Hemlock St., $25,000. Noted July 29.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Aug. 16 building sewer in (a) Flushing Ave., (b) Prospect St., (c) Laurel Hill Ave., from Rotti & Co., Woodhaven, (a) $16,915; A. Paino, 2016 East 14th St., Coney Island (a) $18,791; F. L. Paino, Woodhaven, (a) $20,427, (c) $440,292; J. H. Johnson, (b) $3,764; Peace Bros., 20 Main St., Flushing, (a) $27,748, (b) $3,933, (c) $463,403; C. Kurth, (b) $4,164; Litchfield Constr. Co. 280 Madison Ave., New York City, (c) $442,216. Noted Aug. 12.

★**N. Y., New York**—H. Bruckner, pres. Bronx Boro., let contract building sewer and appurtenances in Leland, Wood and East Tremont Aves., to A. T. Del Balso, $33,245. Noted Aug. 19.

★**O., Cleveland**—City let contract building sewers in Central Ave. from East 14th to East 30th Sts., to Manson Co., 345 The Arcade, $80,401; Lambert Ave. from East 131st to East 138th Sts., to A. Lanese & Co., 224 Guardian Bldg., $5,223; East 105th St. from Kinsman Rd. southeast to Park Heights Rd., to Yahya Bros., 1138 Bolivar Rd., $3,573. Noted June 17.

★**Wis., Cumberland**—City will build sanitary sewerage system and sewage disposal plant. About $80,000. Work will be done by day labor. Noted July 8.

★**Wis., Kilbourn**—Village let contract laying sewers here, to H. E. Wolff, Winona. Noted July 22.

★**Minn., Pine Island**—City let contract building Dist. Sewer 1, involving 2,969 lin. ft. 8-15 in. pipe, 9-13 ft. deep; laterals, Dist. 1, 13,334 lin.ft. 8-10 in. pipe, 5-15 in. deep; Dist. Sewer 2, 1,909 lin.ft. 8-15 in. pipe, 7-15 ft. deep; Laterals, Dist. 2, 3,441 lin.ft. 8-10 in. pipe, 5-17 ft. deep, to J. G. Rae, Tracy, $40,577. Noted July 22.

★**Minn., Rush City** — City let contract building sanitary sewerage system, involving 19,025 lin.ft. 8-15 in. pipe, etc., to Woodrich Constr. Co., Minneapolis, $42,092. Noted July 29.

Ore., Portland—City received bids Aug. 11, building (a) Ainsworth Ave. and Kerby St. Sewerage System, (b) Killingsworth and Vernon Aves. Sewerage System, (c) building sewer in East 18th St. from Prescott to Emerson Sts., (d) East 17th St. from Wygant to Alberta Sts., (e) East 20th St. from Prescott to Alberta Sts., (f) East 65th St. from Hassalo to Willow Sts., (1) cement pipe, (2) vitr., from Azar & Co. (a1) $39,783, (b) $29,271; J. Keating, (a1) $40,217, (b1) $28,313, (e1) $5,271; Lundstrom & Carlson, (b2) $29,111; A. A. Kaady, 3421 50th St., S. E., (c1) $9,501 (d1) $1,413, (e1) $4,896, (f1) $1,515; Portland Realty & Trust Co., Ry. Exch. Bldg. (c) $10,451; Mehemarie & Co., (d) $1,506 (e1) $4,763; Lane & Pasanen, (f2) $1,546

Bridges

PROPOSED WORK

Mass., Andover—Town and Essex Co. (Salem) having plans prepared for rein. con. bridge over Shawsheen River. About $50,000. R. M. Evans, Salem, engr.

Mass., Hoyloke—Dept. Pub. Wks. plans to repair bridges over canal. About $3[illegible]000. T. J. McCarthy, city engr.

Bridges (Continued)

N. Y., Marcellus—Town plans to build 60 ft. span concrete arch bridge, 30 ft. wide, over 9 mi. creek. About $25,000. Engineer not selected.

Wis., Sauk City—City having plans prepared building 1,000 ft. concrete and steel bridge, with 20 ft. roadway, across Wisconsin River. About $210,000. State will appropriate $70,000 toward cost, village and Sauk Co., $70,000, town of Roxbury and Dane Co., $70,000.

Wis, Sparta—Monroe Co. had plans prepared building Lies Bridge, 16 x 20 ft., Jefferson Twp., cost, $3,500; Munson Bridge, 16 x 24 ft., Portland Twp., $2,750; Brown Bridge, 20 x 22 ft., Lafayette Twp., $3,450; Schindler No. 1 Bridge, 16 x 20 ft., Wellington Twp., $2,150; Buholtz Bridge, 20 x 20 ft., Wellington Twp., $3,150; Rowan Bridge, 16 x 16 ft., Lafayette Twp., $3,000; Peters Bridge, 16 x 26 ft., Jefferson Twp., $3,700; Kanable Bridge, 16 x 20 ft., Jefferson Twp., $3,500; Linchan Bridge, 16 x 18 ft., Tomah Twp., $2,650; Hill Bridge, 14 x 16 ft., Tomah Twp., $2,650; Thorson Bridge, 16 x 18 ft., Portland Twp., $2,400; Ruhland Bridge, 16 x 22 ft., Portland Twp., $2,400; Mayers Bridge, 16 x 16 ft., Adrian Twp., $2,400; Schindler No. 2 Bridge, 14 x 20 ft. Wellington Twp., $2,700; all bridges I-beam type with mass concrete abutments on wood piles. C. H. Millard, Sparta, comr. Noted June 24.

Tex., Wharton—Wharton Co. having plans prepared building 880 ft. rein.-con. bridge over San Bernardo River, to have 16 ft. roadway, involving 726 cu.yd. structural excav., 1,770 cu.yd. Class "A" rein.-con. and 153,360 lb. reinforcing steel. About $78,000. Nagle, Witt & Rollins Eng. Co., Gaston Bldg., Dallas, engrs.

Que., Maniwaki—Dept. Pub. Wks., Quebec, soon receives bids building steel bridge over Gatineau River, here. About $100,000. A. Galipeau, c/o Dept. Pub. Wks., engr.

BIDS DESIRED

R. I., Providence—Until Sept. 15, at office of Water Supply Bd., City Hall, building rein.-con. girder bridge of 35 ft. span and adjacent embankment, in North Scituate. F. E. Winsor, ch. engr.; advertised in this issue.

N. J., Newark—Essex Co. and Morris Co. (Morristown) receiving bids building Hanover Cook and Columbia Bridge over Passaic River. About $70,000. F. J. Reimer, Essex Co. Court House, engr. Noted July 29.

Pa., Harrisburg—Until Sept. 1 (change of date), by T. W. Templeton, supt. Pub. Grounds & Bldgs., constructing Soldiers and Sailors Memorial Bridge, in Capitol Park. Noted July 29.

Pa., Lock Haven—Until Sept. 14, by T. W. Templeton, supt. Pub. Grounds & Bldgs., Capitol Bldg., Harrisburg, furnishing labor and material rebuilding superstructure and repairing abutments and piers 1, 2 and 3 and necessary work in connection with approaches of bridge over Susquehanna River, here. F. A. Young, 127 Hanover St., Wilkes-Barre, engr.; advertised in this issue.

Pa., Nanty-Glo—Until Sept. 7, by Boro. Council of Ebensburg, building concrete and stone culvert on Roberts St., here. About $25,000. D. E. Bradley, Trust Bldg., Ebensburg, engr.

Ga., Perry—Until Sept. 14, by Bd. Comrs. Rds. and Revenues, Houston Co., building rein.-con. bridge at Big Indian Creek, near here. Work involves 128 cu.yd. wet and dry excav., 4,505 cu.yd. borrow, 306 cu.yd. sand clay surfacing, 427.7 cu.yd. Class "A" and 107.5 cu.yd. Class "B" concrete, 47,901 lb. reinforcing steel, 576 sq.yd. rock asphalt surfacing.

Ia., Pocahontas—Until Sept. 2, by Comrs. Pocahontas Co., building three 16 ft., one 22 ft. and one 32 ft. I-beam spans, three 50 ft. and two 55 ft. pony truss spans. Work involves 1,031 cu.yd. rein.con., 63,955 lb. steel bars, 167,390 lb. structural steel, etc. About $50,000. A. L. Thornton, co. engr.

Minn., Crookston—Until Sept. 4, by H. J. Welte, aud. Polk Co., building Bridge 3408, 30 ft. rein.-con. deck girder, Bridge 3411, 18 x 40 ft. low truss, rein.-con. abutments, Bridge 3422, 35 ft. rein.-con. beam span, rein.-con. abutments over S and Hill River; Bridge 3423, 23 ft. rein.-con. deck girder, rein.-con. abutments; Bridge 3424, 18 x 45 ft. low truss, rein.-con. abutments over Burnham Creek; Bridge 3428, 18 x 45 ft. truss span, rein.-con. abutments, Bridge 3429, 18 x 20 ft., rein.-con. abutments. About $27,000. S. Steenerson, co. engr.

Kan., Belleville—Until Sept. 13, by Comrs. Republic Co., building one 3 span steel bridge, 8 rein.-con. bridges and 2 rein.-con. culverts. E. A. D. Parker, co-engr. Noted Aug. 5.

Kan., Topeka—Until Sept. 3, by Comrs. Shawnee Co., building 130 ft. span rein.-con. arch bridge, 20 ft. roadway, near Wakarusa. Work involves 792 cu.yd. rein.-con., 31,313 lb. steel bars, 135,300 lb. structural steel, etc. About $40,000. J. E. Williams, co. engr. March Eng. Co., 205 Masonic Temple, Des Moines, designing engrs.

Wyoming—Until Aug. 31, at office of D. S. McCalman, supt. State Highway Comm., Capitol Bldg., Cheyenne, building following projects: Ln-4, Federal Aid Project 22, 650 ft. steel bridge over Snake River, near Wilson, Lincoln Co., work includes taking down, moving and re-erecting three 130 ft. steel spans, furnishing and erecting two 130 ft. steel spans, and building 1,000 lin.ft. pile jetties; Hs-3, Federal Aid Project 80, 272 ft. rein.-con. bridge over Big Horn River at Thermopolis, Hot Springs Co.

Missouri—See Streets and Roads."

Tex., Cleburne—See "Streets and Roads."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Maine—Dept. Pub. Wks., Quebec, Que., Canada, received bids Aug. 18, building substructure of Edmundson N. B.-Madawaska, Me. International Bridge, over St. John River, from D. C. Burpee & Son, South Devon, N. B., Canada, $122,204, Rendle-Stoddard Co., Chelsea, Mass., $126,416, J. Gosselein, 85 Dalhousie St., Quebec, Que., Canada, $166,712; superstructure, from Dominion Bridge Co., Montreal, Que., Canada, $147,820, Canadian Bridge Co., New Birks Bldg., Montreal, Que., Canada, $154,280, United Constr. Co., 24 James St., Albany, N. Y., $239,590. Noted Aug. 5.

★**N. H., Bedford**—Boston & Maine R.R., North Sta., Boston, let contract rebuilding 5 timber bridges to W. W. Pike & Sons., 264 Essex St., Lawrence. About $30,000.

★**Conn., Norwich**—City let contract building rein.-con. bridge over Yantic River on West Main St., to C. A. Sibley, 902 Chapel St., New Haven. About $25,000. Noted June 24.

N. Y., New York—Dept. Plants & Structures, Municipal Bldg., received only bid building Eastchester Bridge over Eastchester Creek, from Lupfer & Remick, Ellicott Sq., Buffalo, $479,000.

N. Y., Rochester—E. S. Walsh, supt. bd. pub. wks., Capitol, Albany, received lowest 3 bids Aug. 17 completing approach on Court St. at barge canal terminal here. Contr. 71, from I. M. Ludington Sons Co., Inc., 124 Powers Bldg., $308,650; Brown & Lowe & Law Bros., Foster Ave., Schenectady, $338,763; Grant Smith & Co., Utica, $339,709. Noted July 22.

Md., Baltimore—Bd. Awards, c/o City Register, received low bid building 180 ft. bridge over Gwynns Falls, on Windsor Mill Rd., from Consolidated Eng. Co., Calvert Bldg., $105,280. Noted Aug. 12.

★**Ia., New Hampton**—Chickasha Co. let contract building 2 bridges, to A. Olson Constr. Co., 410 Black Hawk Natl. Bank Bldg., Waterloo. About $27,660.

Minn., Cambridge—Isanti Co. received bids building State Bridge 332, to have three 18 x 75 ft. truss spans on rein.-con. abutments and gravity piers, from W. O'Shea & Son, 526 Ridgewood Ave., $29,372; M. A. Adams & Co., 928 Andrus Bldg., $29,874; Independent Bridge Co., 1101 Metropolitan Life Bldg., Minneapolis, $31,250. Noted July 29.

★**Tex., Groesbeck**—Limestone Co. let contract building several rein.-con. and steel bridges and culverts, on Highway 14, to Tibbets Constr. Co., Mineral Wells, $115,965; including 10% for engineering and contingencies. Noted Aug. 19.

Streets and Roads

PROPOSED WORK

Maine—State Highway Comm., Augusta, plans to build highway from Skowhegan to Fairfield, macadam. About $226,000. P. D. Sargent, comr.

Mass., Boston—City receives bids about Sept. 15, improving Stark St. from Cambridge to Roland Sts., Charlestown; Thorndike St. from Commonwealth Ave. to Boundary line between here and Brookline, Brighton; Brenton St. from Glenway to Greenwood Sts., Dorchester; Melton Rd. from Wallingford to Colonial and Nottingham Rds., Brighton; Arbutus St. from Blue Hill Ave. to Irma St., Dorchester; Oriole St. from Bellevue St. to Emmons Rd., West Roxbury; Allenwood St. from Anawan Ave. to Pelton St., West Roxbury; widening Province St. on southeasterly and northeasterly side from Prom Province Court and discontinuance of part of northeasterly side of Province Court at southeasterly end; Washington St. on southeasterly side between Nonautum and Tremont Sts., Brighton; widening and building 4 corners at intersection of Canterbury and Walk Hill Sts., West Roxbury. Cost to exceed $25,000.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids Aug. 13, repaving with asphalt block 179th and 182nd Sts. Work will be re-advertised. Noted Aug. 5.

W. Va., Madison—Boone Co. voted $67,000 bonds to grade Charleston-Logan Turnpike. J. P. Blundon, co. engr.

N. C., Nashville—Rd. Aldermen plans to pave 1½ mi. various streets. Mees & Mees, 310 Trust Bldg., Charlotte, consult. engrs.

S. C., Anderson—Comrs. Anderson Co. plan to build 20 mi. Anderson-Abbeville Rd., also 25 mi. Anderson-Greenville Rd. C. H. Morefield, Columbia, engr.

S. C., Camden—Comrs. Kershaw Co. plan to build 30 mi. Camden-Ridgeway Rd. C. H. Moorefield, Columbia, engr.

S. C., Spartanburg—Comrs. Spartanburg Co. plan to build 18 mi. road from here to North Carolina line. C. H. Moorefield, Columbia, engr.

S. C., York—Comrs. York Co. plan to build 15 mi. road from here to Cherokee line. C. H. Moorefield, Columbia, engr.

Fla., Haines City—City voted $60,000 bonds improve streets.

Ohio—State Highway Comm., Columbus, canceled bids received Aug. 20, building roads in following counties:

Hardin Co., Sect. "E" Findlay-Kenton Rd., 2.08 mi., grading, constructing bridges and culverts and paving with either bituminous concrete or Kentucky rock asphalt.

Ashtabula Co., Sect. "E" Jefferson-Andover Rd., 2.22 mi., resurfacing old surface with brick and granulated slag cushion. Noted July 29.

Ohio—State Highway Comm., Columbus, received no bids Aug. 20, building roads in following counties:

Richland Co., Sect. "M" Mansfield-Galion Rd., 0.682 mi., grading and paving with brick.

Guernsey Co., Sect. "M" National Rd., 1.28 mi., grading, constructing bridges and culverts and paving with brick.

Clermont Co., Sect. "K" Cincinnati-West Union Rd., 5.489 mi., grading, constructing bridges and culverts and paving with waterbound macadam.

Sect. "A" Milford-Vera Cruz Rd., 2.433 mi., grading, constructing bridges and culverts and paving with waterbound macadam. Noted July 29.

Mich., Hamtramck (Detroit P. O.)—Village rejected bids furnishing labor and material paving Jos. Campau Ave. from Caniff to Carpenter Aves., Dequindre St. from Caniff to Carpenter Aves., Caniff Ave. from Jos Campau to Conant Aves., involving 20,000 sq.yd. concrete, brick, asphaltic concrete or creosoted wood block. About $120,000. Work will be readvertised. G. Jerome, 1331 Majestic Bldg., Detroit, engr.

Minn., St. Paul—City receives bids paving 16 blocks of Arcade St. between Maryland St. and north city limits, asphaltic concrete, from Fielding & Shepley, 216 University Ave., $70,500; White Constr. Co., St. Paul, $71,549. Noted Aug. 12.

Missouri—State Highway Dept., Hermitage, received no bids July 31, building 4.49 mi. Preston-Collins Rd. (Preston Special Rd. Dist.), 24 ft. wide, Federal Aid Project 46, cost $26,094, and 7.4 mi. Springfield-Sedalia Rd. (Preston Special Rd. Dist.), 24 ft. wide, Federal Aid Project 45, both Hickory Co., $42,010. Noted July 22.

Mo., Oregon—Holt Co. having plans prepared paving 66½ mi. Mound City-Oregon Rd., 18 ft. wide, concrete. Leslie-Barnes Eng. Co., Amer. Natl. Bank Bldg., St. Joseph, engrs.

Mo., St. Joseph—Bd. Pub. Wks. passed ordinance to pave Marion St. from Circle Drive to Goff St., Goff Ave. from Marion St. to Circle Drive, 15th St. from Hickory to Atchison Sts. W. K. Seitz, St. Joseph, engr.

Mo., Savannah—Andrew Co. having plans prepared grading and building bridges on 26 mi. North and South Rd., 18 ft. wide. Leslie-Barnes Eng. Co., Amer. Natl. Bank Bldg., St. Joseph, engrs.

Streets and Roads (Continued)

Tex., Clarksville—Red River Co. having plans prepared grading, surfacing and draining 10,341 mi. Highway 5B from Bowie Co. line to English, 16 ft. wide, involving 13.46 acres clearing and grubbing, 52,840 cu.yd. borrow, 6,263 cu.yd. earth excav., 260.3 cu.yd. Class "A" concrete, 16,467 cu.yd. gravel surfacing, 17,609 lb. reinforcing and 21,568 lb. structural steel. About $129,500, plus 10% for engineering and contingencies. P. Y. Creager, Clarksville, co. engr.

Tex., Dallas—Dallas Co. soon receives bids building 12 in. gutters and 8 ft. sidewalks on 1 mi. Harwood St. from Ross to Cedar Springs Sts. About $50,000. Rescinded former contract let to Klein Bros., Junios and Walton Sts. G. Fairtrace, Dallas, engr.

Tex., Ft. Worth—City had plans prepared paving about 1 mi. Commerce St., 30 and 40 ft. wide, involving 18 car loads vitr. brick (same being purchased by City). About $250,000. Work will probably be done by day labor.

Okla., Chandler—City having plans prepared repaving various streets in business district. About $150,000. D. D. Landsaw, clk. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma, engrs.

Ont., Ottawa—Bd. Control soon receives bids paving Somerset St. from Bank to Bay Sts., wood block, and Welling St. from Pooleys Bridge to west limit of Government property, asphalt. About $67,900. A. F. Macallum, city engr.

Ont., Ottawa—Dominion Government has approved plans for expenditure of $22,200,000 for Ontario highways and $17,390,000 for Quebec highways.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 1, by E. Riegelmann, boro. pres., regulating and repaving with permanent Grade 1 granite on 6 in. concrete foundation, roadway of Columbia St. from Hamilton Ave. to Sigourney St., Kingsland Ave. from point 268 ft. north of Calyer St. to point 453 ft. south, with permanent asphalt on 6 in. concrete foundation, strip 24 ft. wide in centre of 7th Ave. from 64th to 65th Sts., 57th St. from 2nd to 3rd Aves., with 3 in. asphalt block, 57th St. from 2nd to 3rd Aves., resurfacing with asphalt by heater method, Atlantic Ave. from Pennsylvania to Miller Aves., Autumn Ave. from Glen St. to Liberty Ave., De Koven Court from East 17th St. to Brighton Beach R.R., Euclid Ave. from Jamaica to Atlantic Aves., Irvington Pl. from East 17th St. to Brighton Beach R.R., Lorraine St. from Columbia to Smith Sts., Prospect Park, southwest from Prospect Park, west to Park Circle, St. Edwards St. from Park to Myrtle Ave., 16th St. from Prospect Park west to Prospect Park southwest, restoring and repaving asphalt pavements in roadways of various streets, when and where directed.

N. Y., Long Island City—Until Sept. 3, by M. S. Connolly, pres. Queens Boro., partially regulating and grading for sodding or seeding side slope adjacent to park, laying gutters, and building retaining wall for width of 60 ft. centrally located from Myrtle Ave. to point about 155 ft. north of Chestnut St., and for width of 70 ft. adjoining southeasterly and easterly side of Park Lane from point about 220 ft. southwest from point of curve at southwest corner Park Lane near 115th St. to Union Turnpike; regulating and grading sidewalk space for width of 10 ft. and gutter space and for laying sidewalks on easterly side of 42d St. from Jackson to Hayes Aves., regulating, grading, curbing and laying sidewalks and paving with permanent sheet asphalt on concrete foundation, 94th St. from Jamaica to 89th Aves., regulating and grading Harper Ave. from Jackson Ave. north for distance of 450 ft.; for partially filling vacant lot on southwest side of Tompkins Pl. from Myrtle to Cooper Aves.

N. Y., New York—Until Aug. 31, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with granite and wood block on concrete foundation, areas included between parkways on Delancey St. at intersections of Norfolk and Suffolk Sts.

N. Y., S. I., St. George—Until Aug. 30, by C. D. Van Name, pres. Richmond Boro., repairing and building sidewalks on north side of Heusden St from Simonson to Van Pelt Aves., on both sides of Richmond Terrace from Harbor Rd. to Granite Ave. and on south side of Richmond Terrace from Morningstar Rd. to Granite Ave.

N. Y., S. I., St. George—Until Aug. 31, by C. D. Van Name, pres. Richmond Boro., repaving roadway of Arthur Kill Rd. from Kentley St. to Sharrots Rd., concrete.

New Jersey—Until Sept. 10, by State Highway Comn., Broad St. Bank Bldg., Trenton, repairing State Highway Route 1, from Highland Park to Hotel Pine, involving 8,000 sq.yd. 2 in. grade "W" bituminous concrete surface. A. L. Grover, ch. clk; advertised in this issue.

N. J., Jersey City—Until Sept. 9, by Bd. Freeholders Hudson Co., improving 2.22 mi. Schuyler Ave. in towns of Harrison and Kearny, involving 26,246 sq.yd. bituminous surface pavement and 5,250 cu.yd. foundation. About $126,000. Noted June 17.

N. J., North Arlington (Arlington P. O.)—Until Sept. 8, by Mayor and Boro. Council, grading Front St. from Kearny Ave. to Lorrigan Pl., involving 1,695 cu.yd. earth excav. and 1,140 cu.yd. earth fill; building concrete walks on Kearny Ave. from Astor Pl. to Chauncey Ave., 2,117 cu.yd. earth fill, 311 cu.yd. earth excav. and 20,700 sq.ft. concrete sidewalk. J. H. Shields, clk.

N. J., Red Bank—Until Sept. 7, by Boro. Council, paving 920 ft. Bridge Ave. from Front St. to Prospect St. A. A. Patterson, mayor. G. K. Allen, 60 Broad St., engr.; advertised in this issue.

Maryland—Until Aug. 31, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building 1.4 mi. Legislative Rd. between Morantown and Allegany, (Contr. A-18); 2.14 mi. Mountain Rd. from end of concrete section to Jacobsville, (Contr. AA-19); 2.04 mi. Hereford Rd., (Contr. B-38). J. N. Mackall, chn.; advertised in this issue.

Alabama—Until Aug. 31, by State Highway Comn., Montgomery, building 3.2 mi. road from Browns Sta., Dallas Co., to Perry Co. line, involving 5 acres clearing and grubbing, 12,672 cu.yd. common excav., 192.5 lin.ft. 18-24 in. culvert pipe, 41.56 cu.yd. Class "B" concrete in headwalls, 97.82 cu.yd. Class "A" concrete in culverts, 7,480 lb. reinforcing steel, 7,400 cu.yd. gravel, etc. W. S. Keller, state highway engr.

La., New Orleans—Until Sept. 30, by W. B. Davey, city engr., paving 9.5 mi. residential streets, bitulithic, bituminous concrete, refined Trinidad Lake asphalt, sheet asphalt or creosoted wood block; 1.7 mi. in business section, granite blocks, vitr. brick or block, or creosoted wood block; 10.8 mi. various streets, chert or concreting clay gravel.

La., Rayville—Until Aug. 30, by State Highway Dept., New Orleans, building 10.75 mi. Sect. T. and 13.26 mi. Sect. C, Richland Co., involving drainage structures, 3,767.8 cu.yd. concrete in bridges and 270.63 cu.yd. concrete in culverts. D. Buie, state highway engr.

Ohio—Until Sept. 3, by State Highway Comn., Columbus, building roads in following counties:

Ashtabula Co., Sects. "C" and "D," Cleveland-Meadville Rd., 6.7 mi., resurfacing old road with macadam, cost $167,000.

Belmont Co., Sect. "M," Bellaire-Barnesville Rd., 2.999 mi., grading and draining, $52,499.

Sect. "H-1," Barnesville-Woodsfield Rd., 1.778 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $68,836.

Sect. "I," Barnesville-Woodsfield Rd., 2.061 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $74,065.

Crawford Co., Sect. "A," Shelby-Galion Rd., 2.434 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $90,600.

Clermont Co., Sect. "N-2," Milford-Hillsboro Rd., 3.548 mi., grading, constructing bridges and culverts and paving with waterbound macadam, $100,197.

Geauga Co., Sect. "G," Cleveland-Meadville Rd., constructing bridge, $8,000.

Jackson Co., Sect. "F," Chillicothe-Jackson Rd., 1.85 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $62,305.

Sect. "K," Chillicothe-Jackson Rd., 2.332 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $109,275.

Mahoning Co., Sect. "N-2," North Lima-East Palestine Rd., .65 mi., grading, constructing bridges and culverts and paving with brick, $28,292.

Paulding Co., Sect. "G," Paulding-Woodburn Rd., 2.025 mi. grading, constructing bridges and culverts and paving with concrete, bituminous macadam or Kentucky rock, $79,671.

Sect. "A-2," Payne-Hicksville Rd., 2.01 mi., grading, constructing bridges and culverts and paving with concrete, bituminous macadam or Kentucky rock, $78,841.

Scioto Co., Sect. "R-1," Ohio River Rd., grading, constructing bridges and culverts and paving with brick, $204,086.

Sect. "B," Portsmouth-Oak Hill Rd., 1.99 mi., grading, constructing bridges and culverts and paving with brick, $91,850.

Van Wert Co., Sect. "A," Van Wert-Fort Wayne Rd., 5.826 mi., grading, constructing bridges and culverts and paving with reinforced concrete, bituminous concret, bituminous macadam or Kentucky rock, $295,429.

Ashtabula Co., Sect. "E," Jefferson-Andover Rd., 1.22 mi., resurfacing old macadam road with No. 3 brick, $35,054.

Cuyahoga Co., Sects. "C-1" and "C-2," Cleveland-Elyria Rd., 8.021 mi., widening pavement, waterbound macadam, $63,000.

Lorain Co., Sect. "T," Oberlin-Elyria Rd., 1.69 mi., grading, constructing bridges and culverts and paving with brick, $50,337.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Sept. 6, Warren Co., Williamsport, 13,008 ft. H. Brutus et al. Rd., Warren Twp., gravel; 3,166 ft. C. L. Messner et al. Rd., Washington Twp., concrete; 10,586 ft. J. A. Borders et al. Rd., Prairie Twp., gravel, also 10,711 ft. O. B. Johnson et al. Rd., gravel; 13,332 ft. J. M. Salts Rd., Steuben Twp., gravel; 11,424 ft. A. R. Jones et al. Rd., Mound-Kent Twp. line, gravel; 11,930 ft. J. C. Haslet et al. Rd., Pine Twp., gravel; 15,152 ft. R. Silvia et al. Rd., Kent Twp., gravel. W. H. Stephens, aud.

Sept. 7, Pulaski Co., Winamac, 15,045 ft. A. D. Paine Rd., Rich Grove Twp., gravel. J. C. Howe, aud.

Montgomery Co., Crawfordsville, 15,840 ft. W. C. Lydick et al. Rd., Brown Twp., gravel. W. McClelland, aud.

Michigan—Until Sept. 1, by State Highway Dept., Lansing, grading, surfacing and draining Assessment Dist. Rd. 205, 16 ft. wide, St. Clair and Macomb Counties, involving 33,138 cu.yd. earth excav., 75,320 sq.yd. gravel, 438 cu.yd. concrete in culverts, etc. Former bids rejected. Noted July 15.

Mich., Atlanta—Until Sept. 7, by Comrs. Montmorency Co., grading, draining and gravel surfacing 3.277 mi. State Trunk Line Rd. 32-4, Sect. B, involving 30,760 sq.yd. gravel surface, 39,923 cu.yd. excav., etc. State Highway Dept., Lansing, engrs.

Mich., Grosse Pointe Park (Detroit P. O.)—Until Sept. 3, by C. H. Marden, engr., 502 Whitney Bldg., Detroit, grading, shaping and paving 2,400 ft. Beaconsfield Ave. from Kercheval to Mack Aves., 26 ft. wide, involving 65,000 sq.yd. concrete. Noted July 15.

Mich., Hillsdale—Until Sept. 3, by Comrs. Hillsdale Co., grading and gravel surfacing 6.032 mi. State Trunk Line Rd. 23-3, Sect. C, involving 8,882 cu.yd. gravel surface and 318.5 fine grading. State Highway Dept., Lansing, engrs.

Mich., Ionia—Until Aug. 31, by Comrs. Ionia Co. draining, grading and gravel surfacing 7.329 mi. Assessment Dist. Rd. 137, Ionia and Kent Counties, involving 6,325 sq.yd. excav., 22,392 sq.yd. gravel surface base course, 47,113 sq.yd. gravel surface top course. State Highway Dept., Lansing, engrs.

Mich., Muskogon—Until Sept. 2, by Comrs. Muskegon Co., draining, grading and surfacing 1.993 mi. State Trunk Line Rd. 24-12, involving 4,550 cu.yd. excav., 18,710 gravel, stone-gravel or waterbound macadam surfacing, etc. State Highway Dept., Lansing, engrs.

Ia., Cherokee—Until Aug. 31 by Comrs. Cherokee Co., building 14.03 mi. roads, involving 90,384 cu.yd. excav., 3,245 lin.ft. 6 and 8 in. tile and 2 tile intakes. H. R. Bates, Cherokee, engr.

Ia., Newton—Until Aug. 30, by city, paving various streets, involving 30,600 lin.ft. curb or curb and gutter and 36,000 sq.yd. concrete, brick or asphalt pavement; advertised in this issue.

Minn., Carlton—Until Sept. 7, by Carlton Co., graveling 2¾ mi. State Rd. 7 and improving 2¾ mi. Federal Aid Project 127, State Rd. 1, including excav., clearing, grubbing, graveling two 26 ft. clear span bridges, etc. About $30,000. P. D. Mold, Carlton, engr.

Minn., Crookston—Until Sept. 4, by Polk Co., graveling 13.5 mi. Federal Aid Project 155, Co. Job 2001, involving 35,093 cu.yd.

Streets and Roads (Continued)

gravel and 71,259 lin.ft. shaping and compacting, also 1.9 mi. Federal Aid Project 94, Co. Job. 1910, involving 43,323 cu.yd. gravel and 52,300 lin.ft. shaping and compacting. About $52,000 and $40,000 respectively. E. H. Harding, Crookston, engr.

Minn., Minneapolis — Until Sept. 13, by Hennepin Co., grading 3.85 mi. State Rd. 45 and portion of State Rd. 6. About $25,000. A. P. Erickson, aud.

Kan., Ft. Scott—Until Aug. 30, by Comrs. Bourbon Co., completing 9,113 ft. Garland Branch Rd., Federal Aid Project 7, 16 ft. wide. B. Boyle, Ft. Scott, co. engr. Noted July 1.

Kan., Girard—Until Sept. 16, by Comrs. Crawford Co., grading and building culverts on 9.085 mi. Federal Aid Project 40, Sects. A, B, C, D, E and F, 18 ft. wide, cost $150,000; 5.033 mi. Ringo-Edson Rd., Federal Aid Project 39, 18 ft. wide, $75,000. W. J. Arnold, Girard, engr.

Kan., Iola—Until Sept. 15, by Comrs. Allen Co., building concrete road, grading and constructing culverts on 2 mi. Ft. Scott-Wichita Highway, Federal Aid Project 65, 18 ft. wide. About $100,000. A. Stroup, Iola, engr.

Missouri—State Highway Dept., Jefferson City, receiving bids building 26 mi. Jefferson Highway from Buchanan Co. line to Parkville Rd. Dist., 18 ft. wide, Platte Co. Leslie-Barnes Eng. Co., Amer. Natl. Bank Bldg., St. Joseph, engrs.

Missouri—Until Sept. 1, by State Highway Dept., Harrisonville, building 19 mi. Harrisonville-Belton Rd., 24 ft. wide, Federal Aid Project 20, Cass Co., involving 66,464 cu.yd. earth and 8,127 cu.yd. rock excav., 1,880 cu.yd. borrow, 2,500 cu.yd. per 100 ft. overhaul, 539.6 cu.yd. Class "B" and 27.5 cu.yd. Class "C" concrete masonry, 41,487 lb. reinforcement for concrete masonry, 225 lin.ft. 14-18 in. vitr. clay pipe, etc., cost $93,144; Frahm Bridge, rein.-con. spandrel filled arch, 13.9 cu.yd. Class "A," 421.2 cu.yd. Class "B," concrete, 42,420 lb. reinforcing steel, $19,533; Brown Bridge, rein.-con. skew deck girder to have 2 rein.-con. abutments and 1 concrete pier, 5.5 cu.yd. Class "A," 190.9 cu.yd. Class "B" and 58.3 cu.yd. Class "C" concrete, 21,520 lb. reinforcing steel, $10,107; Longshore Bridge, rein.-con. deck girder with 2 rein.-con. abutments, 2.6 cu. yd. Class "A" and 116.1 cu.yd. Class "B" concrete, 10,400 lb. reinforcing steel, $5,195, all bridges on Harrisonville-Belton Rd.

Mo., Bethany—Until Sept. 6, by city, paving 4 blocks 17th St. between Main and Miller Sts., involving 3,300 sq.yd. concrete. About $50,000. O. Stratton, city engr.

Tex., Cleburn—Until Aug. 31, by Comrs. Johnson Co., Precinct 1, improving 16 mi. Rio Vista and Lone Willow Rds., also building steel bridge on concrete pier and abutments, across Nolan River. Work involves 151,000 cu.yd. gravel surfacing, 1,500 cu. yd. concrete, 79,000 lb. structural steel, 8,500 cu.yd. loose rock excav., etc. C. White, co. aud.

Tex., Hillsboro—Until Sept. 4, by R. F. Burns, judge Hill Co., grading, gravel surfacing and building rein.-con. bridges and culverts on 14.9 mi. Highway 31 through Hill Co., 15 ft. wide, involving 114,077 cu.yd. borrow and 28,970 cu.yd. earth excav., 27,375 cu.yd. gravel, 105,200 lb. reinforcing steel, 1,020 cu.yd. Class "A" and 330 cu.yd. Class "B" concrete. About $224,000. Bryant & Huffman, Littlefield Bldg., Austin, engrs.

Tex., Jasper—Until Sept. 13, by C. C. Brown, judge Jasper Co., grading and building rein.-con. bridges and culverts on 12.48 mi. Highway 8 from Buna southeast to Newton Co., 24 ft. wide, involving 71,765 cu.yd. earth excav., 42,860 lb. steel bars, 506.9 cu.yd. Class "A" and 57.9 cu.yd. Class "B" concrete. About $47,000. C. P. Hunter, Jasper, co. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Vermont—State Highway Dept., Montpelier, let contract building .73 mi. waterbound macadam highway in Barnet Twp., to Arboris Co., Hartford, Conn, $28,497.

Vermont—State Highway Comn., Montpelier, received bids building (a) .71 mi. State Highway, Project 5, St. Albans, involving 1,175 cu.yd. earth excav., 878 cu.yd. stone, 1,388 cu.yd. waterbound macadam, 1,250 lin.ft. standard underdrain, etc., (b) .73 mi. Project 3, Barnet, 3,236 cu.yd. earth and 387 cu.yd. rock excav., 2,286 cu. yd. stone, 1,200 ft. 6 in. drain, etc.; (c) 4.07 mi. Project 13, New Haven and Waltham, 8,324 cu.yd. earth excav., 2,000 cu. yd. stone, 9,078 cu.yd. waterbound macadam, 623 lb. reinforcing and 1,995 lb. structural steel, etc.; (d) 6.81 mi. Project 12, Sect. A, Mt. Tabor, Dorset and Danby, 26,879 cu.yd. earth excav., 16,154 cu.yd. gravel, 691 cu.yd. concrete, 1,914 cu.yd. stone, 3,898 cu.yd. borrow, 614 ft. 12-18 in. corrugated pipe culverts, etc.; (e) 6.76 mi. Sect. B, 20,675 cu.yd. earth excav., 16,687 cu.yd. graveling, 616 ft. 12-18 in. corrugated culvert piping, etc. J. H. Button, St. Albans, (a) $23,538; Arborio Co., 80 Park St., New Haven, (b) $28,497; Perine & Sons, Inc., Ashland, Mass., (b) $32,661; W. F. Loud & Sons Co., 94 Hall Pl., Quincy, (c) $108,110; G. L. Gregoire & Co., Barre, (d) $132,717; P. C. Risci, Rutland, (e) $123,829; W. E. Dix, Corp., Springfield, (d) $142,398, (e) $120,242; Alco Contr. Co., Boston, (d) $154,666, (e) $143,998.

Massachusetts — State Highway Dept., Boston, received bids Aug. 17 building 4,200 ft. cement concrete and bituminous macadam highway, Palmer, from C. Bianchi & Co., Framingham, $44,820; Adams & Ruxtan Constr. Co., 33 Lyman St., Springfield, $44,841.

Mass., Boston—City received bids Aug. 18 paving Centre and South Sts., West Roxbury, (a) sheet asphalt, (b) Topeka, from Bermudex Co., 246 1st St., Cambridge, (a) $75,877; Rowe Constr. Co., 45 Milk St., (b) $76,562; Central Constr. Co., 228 Southampton St., Roxbury, (b) $80,252.

Mass., Boston — City received bids Aug. 10 paving Cushman Rd., Easton St., Glenville Ave., etc., from J. J. Lane (sheet asphalt) $62,072, (Topeka) $62,257, (bituminous) $62,812; Warren Bros. Co., 142 Berkeley St., (bituminous) $65,970.

★Mass., Palmer—Bd. Comrs. let contract paving 4,200 ft. North Main St., cement concrete, to C. Bianchi & Co., Framingham, $44,820. Noted Aug. 19.

Conn., New Haven — City received bids paving (1) Norton St., (2) Rose St., (3) New Hall St., (4) Highland St., (5) Cedar St., (a) National, (b) sheet asphalt, (c) Topeka, (d) concrete, (e) bituminous macadam, from C. W. Blakeslee & Sons, 58 Waverly St., (1e) $9,677, (2b) $4,388, (2c) $3,751, (3b) $10,683, (3c) $9,418, (4b) $8,968, (4d) $11,688, (5b) $2,013, (5c) $1,715; R. D. Daley & Co., 6 Church St., (1e) $7,825, (4b) $8,735, (4d) $9,130; Connecticut Natl. Pavements, Inc., 185 Church St., (1e) $8,131, (2a) $4,702, (2b) $4,207, (2c) $3,927, (3a) $11,516, (3b) $10,256, (3c) $9,290, (4a) $7,988, (b) $7,148, (4c) $6,545, (4d) $11,377, (5b) $1,917, (5c) $1,809, (5e) $2,154.

★New York—State Highway Comr., Capitol, Albany, let contract repairing Rd. 432, Dutchess Co., to Kennedy Constr. Co., Albany, $83,935; Rd. 5534-A, Schuyler and Yates Cos., to W. Hazard, Ithaca, $8,293. Noted Aug. 19.

★N. Y., Brooklyn—E. Riegelman, boro. pres., let contract regulating and grading, (a) East 7th St. from Ave. T to Ave U, (b) East 19th St., (c) East 45th St., (d) 52nd St., (e) 82nd St., (f) Bath Aves., (g) Hegeman Ave., (h) regulating, grading and laying sidewalks on Hegeman Ave., (i) regulating, grading and laying curbs on Neptune Ave., (j) regulating and paving East 47th St., (k) 51st St., (l) 52nd St., (m) 81st St., (n) 82nd St., (o) regulating and paving with asphalt East 7th St. from Ave. T to Ave. U, (p) furnishing and delivering 2,500 bbl. portland cement, to J. Pallidino, (a) $4,912, (b) $4,049, (d) $6,473, (e) $7,116; Uvalde Asphalt Paving Co., 1 Bway., New York City, (c) $42,118, (m) $13,981, (n) $10,090; Brooklyn Alcatraz Co., 407 Hamburg Ave., (j) $22,403, (k) $11,394, (l) $14,461, (o) $14,155; B. Turacama, 8706 Bay 12th St., (f) $12,174; Cassel Bros., (g) $1,300; C. A. Myers, (h) $2,245; Wolfman & Greenbaum, (i) $7,533; Burroughs Bldg. Material Co., Johnson Ave., (p) $12,000. Noted Aug. 5.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., let contracts regulating, grading, curbing and laying sidewalks on 16th Ave. from Grand to Vandeventer Ave., to N. Lascalso, $3,850; North Jane St. from Vernon Ave. to terminus 368.55 ft. west, to Spalone Contg. Co., $50,876; regulating and repaving with asphaltic concrete on macadam foundation, Laurel Hill Blvd., Rockaway Blvd. from Cronins Crossing to Park Ave., Atlantic Ave. from Nortons Creek to Long Island R.R.; on concrete foundation Corona Ave. from Louona to Colonial Aves., also with sheet asphalt on concrete foundation Jamaica Ave. from Van Wyck Ave., Grand St., to Uvalde Asphalt Paving Co., $49,848, $64,250, $17,450, $39,333 and $181,792 respectively; regulating roadway for 30 ft. width and laying for 18 ft. width both centrally located, a preliminary pavement of bituminous macadam on 104th St. from Farmers Blvd. to Hollis Ave., to Kennedy & Smith, $6,490; Myrtle Ave., to C. Kurth, $6,849. Noted July 22.

N. Y., New York — H. Bruckner, pres. Bronx Boro., received bids repaving with sheet asphalt in railroad area, where directed, from Union Paving Co., Bway. and 112th St., $25,120; Asphalt Constr. Co., 2197 Madison Ave., $26,690; J. L. Brusstar, Harlem River and 150th St., $25,910; Uvalde Asphalt Paving Co., 1 Bway., $26,950.

★N. Y., New York—H. H. Curran, pres. Manhattan Boro., let contract repaving Madison Ave., sheet asphalt, to Cleveland Trinidad Paving Co., Flushing, $31,172. Noted Aug. 12.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Aug. 19 regulating and repaving with sheet asphalt (a) West 54th St., (b) West End Ave. from 69th to 72d Sts., (c) West End Ave. from 76th to 91st Sts., (d) with asphalt block West End Ave. from 69th to 72d Sts., (e) with wood block West 54th St., (f) with granite block, Hudson St., from W. J. Fitzgerald, 547 West 45th St., (a) $42,758, (b) $29,644, (c) $162,881, (e) $62,156, (f) $109,131; J. L. Brusstar, Harlem River and 150th St., (a) $44,794; Davney Asphalt Co., 177th St. and Westchester Creek, (a) $46,042; Uvalde Asphalt Paving Co., 1 Bway., (a) $46,477, (b) $30,975, (c) $163,785; Cleveland Trinidad Paving Co., Flushing, (a) $46,874, (b) $30,241, (c) $163,241; Hastings Paving Co., 25 Broad St., (d) $34,930; P. J. Kearns, 2306 Creston Ave., (f) $122,760. Noted Aug. 12.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Aug. 16 regulating and repaving with sheet asphalt, (a) Madison Ave. from 91st to 94th Sts., (b) with granite block, Delancey St. between parkways, (c) Lexington Ave. from 125th to 130th Sts., (d) 125th St. from 1st to 3d Aves., (e) with wood block, Delancey St. between parkways, (f) Lexington Ave. from 125th to 130th Sts., (g) 125th St. from 1st to 3d Aves., (h) regulating, grading and flagging Hillside Ave., etc., from Cleveland Trinidad Paving Co., Flushing, (a) $32,933; J. L. Brusstar, Harlem River and 150th St., (a) $33,801; Uvalde Asphalt Paving Co., 1 Bway., (a) $34,621; Asphalt Constr. Co., 2197 Madison Ave., (a) $35,042, (c) $55,514, (d) $69,142; D. J. McCarthy, (b) $2,965, (e) $2,894, (h) $984; W. J. Fitzgerald, 547 West 45th St., (b) $3,425, (c) $57,146, (e) $3,351, (f) $58,534, (g) $85,884; Burnside Constr. Co., 270 Burnside Ave., (c) $56,063, (d) $70,062, (h) $1,348; P. J. Kearns, 2306 Creston Ave., (c) $56,942, (d) $69,462; C. Helbock, 633 Wales Ave., (d) $69,843; L. DiMenna, (h) $1,336.

★N. Y., New York—H. H. Curran, pres. Manhattan Boro., let contract regulating and repaving State and East 39th Sts. to C. Helbock, 633 Wales Ave., $19,075 and $46,101 respectively; Prince St., to W. J. Fitzgerald, 547 West 45th St., $15,308; 122d St., to Burnside Contg. Co., 270 Burnside Ave., $61,294; 182d St. from Wadsworth Ave. to Bway., to Hastings Paving Co., 25 Broad St., $6,615; 179th St. and 182d. St. from Amsterdam to Wadsworth Aves., to Davney Asphalt Co., 177th St. and Westchester Creek, $35,309 and $28,531 respectively; building sewers in 122d St. at foot of Harlem River, to P. F. Reilly, $7,302. Noted Aug. 19.

★New Jersey — State Highway Comn., Broad St. Bank Bldg., Trenton, let contract paving .9 mi. highway at Rahway, Union Co., to Weldon Constr. Co., Westfield, $115,850.

★N. J. Belvidere—Bd. Freeholders Warren Co. let contract building 7,718 sq.yd. rein.-con. road on South Main St., to Korp & Korp, Phillipsburg, $33,947.

★N. J., Flemington—Hunterdon Co. let contract building .6 mi. concrete road near Flemington Jct., 20 ft. wide, to Smith Bros. & Co., Hackettstown, $29,651. Noted Aug. 12.

★N. J., Newark—City let contract paving with concrete, Hansbury Ave. from Elizabeth to Bergen St. and Goldsmith St. from Clinton to Bergen Sts., to J. E. Gilligan, 919 Broad St., $73,256. Noted May 27.

Streets and Roads (Continued)

★**N. J., Newark**—Essex Co. let contract paving 4,000 ft. Sanford St., from Central Ave., East Orange, to Newark city line, 20 ft. wide, to Standard Bitulithic Co., 50 Church St., New York City, $54,904.

N. J., North Bergen (Weehawken P. O.)—Town let contract improving South St. to W. Baker Contg. Co., South St., Jersey City. About $55,000. Noted July 29.

★**N. J., West Orange**—Essex Co. (Newark) let contract improving Mt. Pleasant Ave., here, to Franklin Constr. Co., 52 Vanderbilt Ave., New York City, $116,700. Noted Aug. 5.

★**N. J., Woodbury**—Gloucester Co. let contract paving 4 mi. Westville and Crown Point Rds., concrete, to E. R. Mixner, Goshen, N. Y. About $154,000.

★**Pa., Dormont**—City let contract grading, paving, curbing, etc., Mississippi Ave. to Pittsburgh Paving Co., Bakewell Bldg., $8,500; Connecticut and Wisconsin Aves. to P. A. Binintind & Bros., 310 Dawn Ave., $10,000 and $8,000 respectively; building sewers in various streets, to M. Ott Co., 416 Warington Ave., $12,000; all contractors of Pittsburgh.

★**Pa., Phila.**—City let contract grading Sedgwick, Sherman, Mt. Airy Ave. and Wayne Sta., to F. Mark Constr. Co., 2820 North 21st St., $36,806, paving with asphalt, Torreedale Ave. from Kingston to Franklin, to Eastern Paving Co., Colonial Trust Bldg., $28,969.

★**Pa., Pittsburgh**—City let contract grading, paving and curbing Woodville Ave. from Independence St. to Bankville Ave., to T. Cronin Co., 18th and Fox Sts., $58,739. Noted Aug. 5.

★**Tennessee**—State Highway Dept., Nashville, let contract building 16.304 mi. state highway, from Davidson Co. line to Murfreesboro, Rutherford Co., Project 47, bituminous macadam penetration, using oil asphalt, to B. Williams, Lawrenceburg, $424,121; grading and draining 14.544 mi. highway, Carroll and Weakley Counties, Project 22, to W. S. Knight & Co., Horn Lake Rd., Memphis, $117,902; 9.94 mi. highway between Cheatham Co. line and Burns, Dickson Co., Project 46, to F. H. Crow & Co., Dickson, $56,480.

Ohio—State Highway Comn., Columbus, received bids Aug. 20, building roads in following counties:

Ashland Co., Sect. "Haysville" Mansfield-Wooster Rd., 0.624 mi., grading, constructing bridges and culverts and paving with monolithic brick, from D. A. Philips & Son, Ashland, $33,125.

Sect. "D" Mansfield-Wooster Rd., 3.509 mi., grading, constructing bridges and culverts and paving with monolithic brick, D. A. Philips & Son, Ashland, $152,221.

Section "Jeromeville" Mansfield-Wooster Rd., 0.039 mi., grading, construction bridges and culverts and paving with monolithic brick, D. A. Philips & Son, Ashland, $7,942.

Crawford Co., Sect. "H" Bucyrus-Sandusky Rd., 4.087 mi., grading, constructing bridges and culverts and paving with bituminous concrete, cement base, Disher Bros., Upper Sandusky, $222,966; same paving with bituminous macadam, waterbound macadam base, W. F. Drake, Upper Sandusky, $202,745.

Lucas Co., Sect "H-2" Toledo-Wauseon Rd., 1.105 mi., grading, constructing bridges and culverts and widening present macadam and surface treatment, C. M. Gray, Waterville, $12,971; Jos. H. Doran, Toledo, $13,153.

Sandusky Co., Sect. "U" Sandusky-Clyde Rd., 0.995 mi., grading, constructing bridges and culverts and paving with rein.-con., Lee Bros. & Petticord, Clyde, $41,625.

Sect. "C-1" and "C-2" Fremont-Bowling Green Rd., 2.222 mi., grading, constructing bridges and culverts and paving with brick on concrete base, Modern Constr. Co., Fremont, $84,928.

Vinton Co., Sect. "Hamden" McArthur-Jackson Rd., 0.96 mi., grading, constructing bridges and culverts and paving with brick on rolled surface, King & Sharp, McArthur, $31,948; Winchell & McDaniels, Columbus, $32,359.

Crawford Co., Sect. "A" Galion-Bucyrus Rd., 1.13 mi., widening and resurfacing with bituminous concrete, J. W. Carey, Ada, $32,104.

Huron Co., Sect. "C" Monroeville-Chicago Junction Rd., 1.78 mi., grading, widening, repairing foundation and resurfacing with waterbound macadam, Barnes & Tabbert, Rocky Ridge, O., $23,779.

Lorain Co., Sect. "M" Oberlin-Elyria Rd., 1.72 mi., resurfacing with 2-inch bituminous concrete on top with penetration macadam curb and widening base, Highway Constr. Co., Elyria, $42,914; Ohio Eng. Co., Lorain, $44,074.

Richland Co., Sect. "H" Mansfield-Mt. Gilead Rd., 4.36 mi., widening and resurfacing with bituminous macadam, Trumbull Constr. Co., Warren, $92,637.

Warren Co., Sect. "D" Cincinnati-Chillicothe Rd., 2.99 mi., resurfacing with waterbound macadam, S. B. Craig, Blanchester, $49,456; T. D. Van Camp, Cincinnati, $50,643; Curry & Hayes, Eaton, O., $51,335. Noted July 29.

★**O., Cleveland Heights** (Warrensville P. O.)—Village let contract grading, draining, curbing and paving Caledonia Ave. from Taylor Rd. to village limits, involving 7,900 sq.yd. asphalt, 71,000 sq.ft. 6 in. concrete base, 4,800 lin.ft. each stone curb and tile gutter and 6,300 cu.yd. earth excav., to Lake Erie Paving Co., 915 Society for Savings Bldg., Cleveland, $49,266.

★**O., Cleveland Heights** (Warrensville, P. O.)—Village let contract grading, draining, curbing and paving with asphalt, Wood Rd. from Crest Rd. to Crest Drive, Maple Rd. from Mayfield to Wood Rds., Glenwood Ave. from Cleveland Heights Blvd. to Noble Rd., to Spence Bros., Woodhill Rd., Cleveland, $45,862, $62,086 and $28,910 respectively.

★**O., Dayton**—Montgomery Co. let contract paving 1.6 mi. Bessie Little Rd. from Dayton Corp. line to Troy Pike, 20 ft. wide, Kentucky rock asphalt, to Bigler Bros., Middletown, $57,869. Noted Aug. 12.

★**O., Reynoldsburg**—Franklin Co. let contract grading and paving 3,122 ft. Natl. Rd., 32 ft. wide, tarvia macadam, to Baker Constr. Co., 547 School St., Columbus, $24,035.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing .809 mi. State Trunk Line Rd. 15-6, 20 ft. wide, to Houghton Co. Rd. Comrs., Houghton, $25,220; 4.039 mi. State Trunk Line Rd. 28-6, Sect. A, 16 ft. wide, Gogebic Co., involving 15,770 cu.yd. earth excav., 37,911 sq.yd. gravel surface, 2,136 lin.ft. guard rail, etc., to Oxnam & Brown, Ironwood, $70,239; 1.23 mi. State Trunk Line 11-11, 20 ft. wide, St. Joseph Co., 4,106 cu.yd. earth excav., 13,900 sq.yd. bituminous macadam, 541.9 cu.yd. concrete base, 709.8 cu.yd. waterbound macadam, base, etc., to Howard & D. Vander Veen, 320 Briarwood Ave., Grand Rapids, $42,616. Noted April 29.

Mich., Detroit—City received bids furnishing labor and material for grading and paving with sheet asphalt on 8 in. concrete foundation, (1) Ashland Ave. from Jefferson Ave. to Lots 270 and 299, (2) Chalmers Ave. from Charlevoix to Mack Aves., (3) Green Ave. from Cahalan to Ferndale Sts., (4) Marlborough Ave. from Waterloo to Charlevoix Aves., (5) Philip Ave. from Kercheval to Mack Aves., all 26 ft. wide, paving with 1 course concrete, (6) alley 1193 between 10th, 12th, La Brosse and Baker Sts., 15 and 20 ft. wide, from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $9,669, (2) $30,866, (3) $28,194, (4) $21,164, (5) $64,749; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $10,628, (2) $33,720, (3) $30,985, (4) $23,102, (5) $70,710; R. Porath, 1131 McKinley Ave., (6) $10,089; R. A. Mercier, 746 Hudson Ave., (6) $10,670; Otis Cement Constr. Co., 806 Hammond Bldg., (6) $9,872; R. J. Powelson & Co., 1577 Iroquois St., (6) $10,305. Noted July 22.

Wisconsin—State Highway Dept., at div. office 6, 213 South Barstow St., Eau Claire, received bid grading and paving 7.6 mi. Ellsworth-River Falls Rd., Federal Aid Project 122, Pierce Co., from Isaacson Bros. & Mulheron, Spring Valley, work involves 36,427 cu.yd. earth excav., at $0.60 per cu.yd., 580 cu.yd. changes in creek channel, $0.65, 417 cuyd. Class "A" concrete in culverts, $28, 66,791 sq.yd. 15 ft. macadam surfacing, $0.43, 1,200 sq.yd. 18 ft. concrete surfacing, $3, etc., total cost, $69,673; 4.5 mi. Medford-Cornell Rd., Federal Aid Project 125, Taylor Co., from Universal Eng. Co., Eau Claire, work involves 18,263 cu.yd. earth excav., $1.17, 696 cu.yd. ditching, $1.17, 170 cu.yd. Class "A" concrete in culverts, $38, 147 cu.yd. excav., (Morrow Bridge), $0.40, 87,125 lb. structural steel, $0.12, 1,714 cu.yd. borrow excav., $1.17, 18.3 cu.yd. Class "A" concrete, $40, 121.5 cu.yd. Class "B" concrete, $40, 53.9 cu.yd. Class "E" concrete, $41, etc., total cost, $50,506. Noted Aug. 12.

★**Wis., Elkhorn**—City let contract grading, surfacing and building culverts in Martin and Grace Sts., to T. H. Gharity & Sons, Beloit, $29,758.

★**Minn., Hastings**—Dakota Co. let contract improving Federal Aid Project 197 (extension of Federal Aid Project 23), involving 48,000 ft. grading and 10,650 sq.yd. paving, etc., to Warren Bros., 323 Plymouth Bldg., Minneapolis, $56,447. Noted July 2[illegible]

★**Minn., Red Lake Falls**—Red Lake Co. let contract grading and graveling 8 mi. Federal Aid Project 144 to A. F. Turner, Grand Forks, N. D., $30,541. Noted July 2[illegible]

★**Minn., Walker**—Cass Co. let contract grading 12.66 mi. Job 2004, involving 124,858 cu.yd. excav. and 14,820 cu.yd. overhaul, also 12.6 mi. Federal Aid Project 14[illegible] State Rd. 11, involving 69,279 cu.yd. excav. and 31,962 cu.yd overhaul, to P. W. Roark, Thief River Falls, $93,787 and $43,700 respectively; 7.59 mi. Federal Aid Project 142, State Rd. 6, involving 10 acres clearing and grubbing, 77,067 cu.yd. excav., 99,18[illegible] cu.yd. overhaul, and 5,098 cu.yd. gravel to L. and L. Constr. Co., Walker, $57,089 grading and graveling 7.5 mi. Job 2001, involving 30 acres clearing and grubbing, 55,831 cu.yd. excav., 29,394 cu.yd. overhaul and 7,000 cu.yd. clay surfacing, to Wilkinson & Pettijohn, Walker, $44,558.

Kan., Leavenworth—Comrs. Leavenworth Co. and Wyandotte Co. (Kansas City), received bids Aug. 17, improving 7.968 mi. Fort to Fort to Highway, Federal Aid Project 52, 18 ft. wide, (1) Sect. A, (2) Sect. B, (a) grading, (b) building culverts, from Davidson Constr. Co., Kansas City, (1a) $48,567, (2b) $15,673; Cook & O'Brien, Kansas City, (1b) $15,676; Blue Valley Constr. Co., Manhattan, (2a) $29,037; building bridge on Sect. D, from F. M. Clark, $6,729. Noted Aug. 5.

★**Kan., Leavenworth**—Leavenworth Co. let contracts grading 4.416 mi. Fort to Fort Highway, Federal Aid Project 13 C, 18 ft. wide, to Davidson Constr. Co., Kansas City, Mo., $23,387; culverts, to A. A. Diekman, Tonganoxie, $15,874. Noted July 22.

★**Mo., Mound City**—City let contract paving 4 blocks Nebraska St., concrete, to Reinert Bros., 1208 North 5th St. About $82,000.

★**Mo., New Madrid**—New Madrid Co. let contract improving 19.3 mi. Sect. A State Rd., Project S 18.93, 24 ft. wide, to E. Prendergast, St. Louis, $57,186. Noted Aug. 5.

★**Tex., Angleton**—Brazoria Co. let contract grading, surfacing and building timber pile trestles on 5.73 mi. Highway 36, through Rd. Dist. 24, 16 ft. wide, to S. I. Stratton and M. Palmer, Freeport, representing Com. Rd. Dist. 24, $45,052; including 10% for engineering and contingencies. Noted Aug. 19.

★**Tex., Coleman**—Coleman Co. let contract building 42.17 mi. crushed rock or gravel road in Precinct 2, to A. Smith, Santa Anna. About $140,000. Noted April 8.

★**Tex., Dallas**—City let contract building 2 in. bitulithic topping on concrete base, on Park Row, Ruskin and Newton Sts., to Texas Bitulithic Co., 1101-6 Praetorian Bldg., $59,472.

★**Tex., Dallas**—Dallas Co. let contracts paving with 2 in. bitulithic topping on 6 in. concrete base, Gilbert St. from Throckmorton to Herschel Sts., 30 ft. wide, involving 15,000 sq.yd. bituminous macadam and 15,000 sq.yd. concrete base, also 1,800 ft. Irving St. from Oak Lawn to Throckmorton Sts., 30 ft. wide, 6,000 sq.yd. bituminous macadam and concrete base, to Texas Bitulithic Co., Praetorian Bldg., $44,038 and $12,852 respectively.

Tex., Ft. Worth—Tarrant Co. received bids Aug. 14, grading and building concrete culverts on 5.8 mi. Dallas-Ft. Worth Pike (Bankhead Highway), Federal Aid Project 1, 20 ft. wide, from Womack Constr. Co., Ft. Worth, $68,698; Echols Bros., 1010½ Main St., $75,528; Healy Constr. Co., Burk Burnett St., $80,067. Noted July 8.

★**Tex., Ft. Worth**—Tarrant Co. let contract grading and building concrete drainage structures on 5.8 mi. Bankhead Highway, Project 1, 20 ft. wide, to Womack Constr. Co., Ft. Worth, $68,698.

★**Tex., Groesbeck**—Limestone Co. let contract grading and gravel surfacing 23.37 mi. Highway 14 from Falls Co. north, 15 ft. wide, to Tibbetts Constr. Co., Mineral Wells, $219,023; including 10% for engineering, contingencies and material furnished by county. Noted Aug. 19.

★**Tex., San Angelo**—Tom Green Co. let contract surfacing 5 mi. State Highway 1, 16 ft. wide, to J. E. Ward, 520 East 13th St., Dallas. About $330,000.

Streets and Roads (Continued)

★**Tex., San Antonio**—City let contract paving 21 streets, to Southwestern Bituthic Co., Gunter Bldg., $280,000, and Uvalde Rock Asphalt Co., Milam St., $80,000.

Tex., Spur—Dickens Co. received bids improving 7.5 mi. Highway 37 from here to Crosbyton, 16 ft. wide, (a) scarifying and reshaping roadway, grading and surfacing road, (b) building concrete drainage structures, from C. L. Douglas, Spur, (a) $19,745; Lea Constr. Co., Lovington, N. M., (a and b) $44,742; C. Whitner, Spur, (b) $14,644. Work involves 15,104 cu.yd. borrow, 1,364 cu.yd. earth excav., 10,124 cu.yd. gravel, 284.1 cu.yd. Class "A," 37.5 cu.yd. Class "B" concrete and 55.3 cu.yd. concrete pavement.

★**Wash., Everett**—City let contract laying concrete sidewalks and roadway on Summitt Ave. et al, to J. W. Hoover & Co., 1607 Hoyt St. About $47,200. Noted Aug. 5.

★**Wash., Seattle** — City let contract improving 40th Ave., N., et al., to Olympic Constr. Co., Green Bldg., $63,756. Work involves 6,945 lin.ft. Type "A" armored concrete curbing and 10,900 sq.yd. 7 in. concrete paving.

★**Wash., Tacoma**—Pierce Co. let contract clearing and grading 2.2 mi. Bond Rd. 12, involving 10 acres clearing and grubbing, 33,387 cu.yd. earth excav. and 4,504 cu.yd. overhaul, to Maxham & Morgan, Buckley, $30,058; grading, draining and paving 1.831 mi. Bond Rd. 11, 18,987 lin.ft. concrete curbing, 2,312 cu.yd. earth excav., 17,516 sq.yd. 1 course concrete and 17,518 sq.yd. subgrade, to S. A. Moceri, Seattle, $50,860.

Ore., Portland—City received bids Aug. 11, improving Portland Blvd. from Interstate to Union Aves., from Cochran Bros., 415 South Syracuse St., concrete No. 3 in roadway, $2.50 per sq.yd., total $80,830; United Contg. Co., Northwest Bank Bldg., asphaltic concrete No. 2, 2 in. top on crushed rock base in roadway, $2.52 per sq.yd., $85,150.

Railways

PROPOSED WORK

Minnesota—Chicago & Northwestern R.R., 226 West Jackson Blvd., Chicago, plans to improve road and lay 26 mi. of 80 lb. steel rails in Sanborn and Cobden and from Sleepy Eye to Milford Siding. L. J. Putnam, Chicago, ch. engr.

BIDS DESIRED

Nova Scotia—Until Sept. 3, by Dept. Pub. Wks., Western Blk., Ottawa, extending railway spur at Barrington Passage, involving 9 blocks cribwork, stone filled, each 12 ft. long by 20 ft. wide. About $30,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Michigan**—Detroit United Ry., Interurban Bldg., Detroit, will build 10½ mi. street railway track (part, standard construction, part on unpaved streets) on 3rd Ave. from North Saginaw to Wilcox Sts., Stewart St. from North Saginaw St. to Industrial Ave., Detroit St. from Dayton to Bray Sts., Bray St. from North Saginaw to Detroit Sts., Lewis St. from Bway. to Fairview St. and Fairview to Delaware Sts., Delaware St. from Lewis St. to Western Rd., Western Rd. from Delaware St. to Davison Rd. and West Court from Vosburg St. to Grand Trunk Ry. About $750,000. Work will be done by day labor. U. S. Rodgers, genl. traffic mgr.

★**Texas**—Ringland, Eastland & Gulf. Ry., Eastland, let contract extending line 3 mi. from Wayland to connection with Wichita Falls, Ranger & Gulf Ry. near Necessity, to Mayne Bros., Oklahoma. About $200,000; cost plus percentage basis.

★**Oregon** — Willamina & Grande Ronde Ry., Willamina, let contract building 10 mi. standard main line railroad, ballasted, fences, depot, etc., from Willamina to Grand Ronde, to Bates & Rogers Constr. Co., Old Colony Bldg., Chicago.

Excavation and Dredging

PROPOSED WORK

N. J., Jersey City — Excavation — City Comn. plans to excavate, widen and refill Hackensack River front from Bayonne boundary line to West Newark Ave. About $650,000.

Miss., Greenwood—Abiaca Creek D.D., Le Floro, Holmes and Carroll Counties, plan to build open ditch system to reclaim 11,000 acres overflowed land near here, also control hill stream. About $175,000. Engineer not selected. J. I. Lundy, Sidon, chn.

BARGE CANAL WORK—NEW YORK

Bids were received by E. S. Walsh, supt. Pub. Wks., Capitol, Albany, Aug. 17, for completing Court St. approach to Rochester Terminal, Contr. No. 71, from (A) I. M. Ludington & Sons, Inc., 124 Powers Bldg., Rochester; (B) Brown & Lowe & Law Bros., Foster Ave., Schenectady; (C) Grant, Smith & Co., 918 Downer Ave., Utica; (D) Lupfer & Remick, Ellicott Sq., Buffalo, $356,836. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
100 lin.ft. drilling holes in existing masonry	$2.25	$2.25	$2.25
100 lin.ft. painting old masonry	.50	.50	.50
Removing stone-filled cribs and fenders (lump sum)	200.00	200.00	200.00
Cofferdams, pumping, bailing and draining (lump sum)	9,000.00	3,000.00	5,000.00
19,800 cu.yd. excavation	2.00	1.82	2.30
12,200 cu.yd. compacting backfill	.25	.20	.25
20 M.f.b.m. sheeting and bracing	100.00	100.00	120.00
7,900 cu.yd. second-class concrete	17.00	18.10	19.00
2,000 cu.yd. first-class reinforced concrete	26.25	36.00	31.00
1,100 lin.ft. concrete balustrade	6.50	8.00	7.50
125 cu.ft. cutting old masonry	3.00	3.00	3.00
9 cast iron drains and outlet pipes	80.00	80.00	80.00
2 cast iron lamp poles	50.00	50.00	50.00
3 setting lamp poles	25.00	25.00	25.00
175 lin.ft. 6-in. vitrified pipe and specials	.60	.60	.60
1,500 lin.ft. 10-in. vitrified pipe and specials	1.10	1.00	1.10
170 lin.ft. 12-in. vitrified pipe and specials	1.50	1.50	1.50
170 lin.ft. 15-in. vitrified pipe and specials	1.70	1.70	1.70
345,000 lb. metal reinforcement	.08	.09	.09
49,000 lb. structural steel	.20	.17	.18
1,050 lin.ft. metal curb bar	.60	.35	.70
770 lin.ft. wrought iron pipe railing	2.70	2.25	3.00
640 sq.yd. brick pavement	4.00	5.00	4.00
4 manholes	142.75	142.75	150.00
6 gutter basins	85.00	85.00	85.00
12,100 lb. metal duct	.20	.20	.24
930 lin.ft. duct	.20	.40	.20
40,000 sq.ft. waterproofing concrete	.05	.06	.05
9,000 sq.ft. waterproof membrane	.75	1.85	.85
Extended totals	$306,750	$338,763	$339,709

Minn., Waseca—Waseca Co. received no bids Aug. 10, building Co. Ditch 16. About $50,000. Work may be re-advertised. J. W. Hruska, Waseca, engr. Noted July 29.

Ark., Little Rock—Ditch—Roland D.D., Pulaski Co., plans to build open ditch system to drain 3,500 acres near here. O. G. Baxter, Moore & Turner Bldg., engrs.

BIDS DESIRED

N. J., Jersey City—Dredging—Until Aug. 31, by Bd. City Comrs., dredging and deepening Hudson River adjacent to Morgan St. Pier, here. F. A. Dolan, clk.

Miss., Belzoni—Levee—Until Sept. 1, by Comrs. Belzoni D.D., building Levee 2 (Belzoni-South), 13,200 ft. long, 2 ft. high, involving 8,160 cu.yd. excav., Levee 3 (Belgrade), 9,500 ft. long, 2.1 ft. high, 7,656 cu.yd. excav., Levee 4 (Wasp Lake), 5,000 ft. long, 1.3 ft high, 1,224 cu.yd. excav., also enlarging Levee 1 (Belzoni-North), 11,200 ft. long, height to be increased 2 ft., 13,000 cu.yd. excav. S. Castleman, Belzoni, pres.

Tenn., Covington—Drainage—Until Sept. 2, by Bd. Dir. Town Creek D.D. 1, Tipton Co., clearing and cleaning 73 acres right-of-way for main canal, from Sta. 0 to Sta. 116, 50 ft. wide, from Sta. 116 to 375, 100 ft. wide, involving 97,175 cu.yd. excav. W. H. Green, Covington, engr.

Ia., Harlan—Drainage—Until Aug. 30, by Shelby Co., draining 22½ mi. Dist. 10, involving 1,460,000 cu.yd. excav. About $850,000. Mayne Eng. Co., 207 Pearl St., Council Bluffs, engrs.

Minn., Crookston—Ditches—Until Sept. 4, by H. J. Welte, aud. Polk Co., building Co. Ditch 33, involving 48,911 cu.yd. excav., 7.5 mi. grading, etc., cost $9,910; Co. Ditch 58, 15,102 cu.yd. excav., 2.25 mi. grading, 1 steel and concrete bridge, etc., $4,923; Co. Ditch 51, 33,531 cu.yd. excav., 3.84 mi. road building, culverts, $11,221.

Minn., Fairmont—Ditches—Until Aug. 31, by H. C. Nolte, aud. Martin Co., reconstructing Judicial Ditch 85, involving 89,290 ft. 6-30 in. tile, average depth 4-9 ft., 36,630 ft. open ditch, 163,506 cu.yd. excav., etc., cost $105,561; Ditch 88, 23,805 ft. 6-22 in. tile, 3-6 ft. deep, 1,492 cu.yd. open ditch excav., etc., $17,554; Ditch 89, 145,675 ft. 6-38 in. tile, 4-9 ft. deep, 129,309; Ditch 90, 18,250 ft. 6-22 in. tile, 4-8 ft. deep, $13,991; Ditch 91, 56,540 ft. 6-30 in. tile, 4-9 ft. deep, $54,934; Ditch 92, 17,200 ft. 6-18 in. tile, 4-7 ft. deep, $8,007; Ditch 95, 16,100 ft. 6-20 in. tile, 4-9 ft. deep $9,970.

Alta, Waterhen — Drainage — Until Sept. 27, by Dept. of Interior, Langevin Blk., Ottawa, Ont., constructing drains, Waterhen Recl. Project. About $75,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. C., Spindale—See "Waterworks."

★**Wis., Sheboygan** — Drain — Sheboygan Valley D.D., c/o J. Donohue, engr., North 8th St., let contract draining low lands in several villages, involving 6-12 in. tile, to J. Corbett, South Milwaukee. About $125,000.

★**Ia., Marengo**—Ditch—Iowa Co. let contract building North English River D. D. 9, involving 957,000 cu.yd. excav., to C. A. Walb, La Grange, Ind. Noted July 8.

Industrial Works

PROPOSED WORK

Mass., Fall River—Amer. Printing Co., Water St., soon lets contract building 100 x 119 ft., concrete, steel and brick factory, also 1 story, 44 x 133 ft. power plant and brick chimney. About $165,000. Private plans.

Mass., Pittsfield — General Electric Co. having plans prepared by M. M. Throne, engr., c/o owners, for 5 story, 70 x 400 ft., rein.-con. addition to factory.

Mass., Provincetown — Colonial Fisheries Co. plans to build fireproof warehouse. About $50,000. Private plans.

Mass., West Springfield (Springfield P. O.)—McClintock & Craig, engrs., 33 Lyman St., Springfield, soon receive bids building 2 story, concrete and steel plant, rein.-con. flooring, concrete foundation, for Springfield Automatic Screw Machine Corp., Springfield. About $200,000. Noted July 29.

Mass., Worcester—H. Glick, 36 Portland St., having plans prepared by E. T. Chapin, archt., $10 Main St., for 2 story, 60 x 135 ft., rein.-con., brick and steel addition to garage, rein.-con. flooring, concrete foundation, on Portland St. About $80,000.

R. I., Pawtucket — Hope Webbing Co., 1005 Main St., having plans prepared by Perry & Whipple, archts. and engrs., Rhode Island Hospital Trust Bldg., Providence, for large brick and steel addition to factory.

Conn., New Britain—G. A. Zunner, archt., 756 Main St., Hartford, soon lets contract building 2 story, 40 x 150 ft., brick and mill construction addition to factory, concrete foundation, on Cherry and Ellis Sts., for P. Jahn Mfg. Co., 6 Chestnut St. About $50,000. Noted June 3.

Conn., New Haven—Yale University having sketches prepared by Delano & Aldrich, archts. and engrs., 126 East 38th St., New York City, for 2 story, brick and stone chemical laboratory, rein.-con. flooring, brick foundation. About $250,000.

Conn., Waterbury—Lux Clock Mfg. Co., 105 Sperry St., plans to build 4 story, brick and mill construction addition to factory. Private plans.

N. Y., Brooklyn—J. Riley, c/o H. Holden, archt. and engr., 242 Franklin Ave., soon lets contract building 1 story, 100 x 250 ft., rein.-con., brick and steel foundry, rein.-con. flooring, concrete foundation on Columbia St. About $250,000.

Industrial Works (Continued)

N. Y., Jamaica—Scott & Williams, 366 Bway., New York City, had plans prepared by C. M. Hart, archt. and engr., 12 East 44th St., New York City, for 2 story, brick and concrete machine shop, rein.-con. flooring, concrete foundation, on Archer and Middletown Sts., here. About $50,000.

N. Y., Long Island City—J. Weldon having plans prepared by J. M. Baker, archt. and engr., 9 Jackson Ave., for 4 story, 90 x 100 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on 1st Ave. near Freeman Ave. About $125,000.

N. Y., New York—M. Courland, archt. and engr., 47 West 34th St., preparing sketches for 4 story, brick and steel garage, rein.-con. flooring, concrete foundation, on 2nd Ave. About $75,000. Owner's name withheld.

N. Y., New York—C. E. Birge, archt. and engr., 29 West 34th St., soon lets contract building 3 story, 42 x 100 ft., brick, concrete and steel publishing plant, rein.-con. flooring, concrete foundation, at 337 West 58th St., for Veronica Realty Corp., c/o architect. About $100,000. Noted June 17.

Pa., New Castle—Lehigh Portland Cement Co., 718 Hamilton St., Allentown, had plans prepared for 3 story, 44 x 140 ft. power house, 2 story, 22 x 22 ft. clinker building, 2 story, 40 x 72 ft. storage, all brick, concrete and steel, also 225 ft. concrete trestle. About $200,000. Private plans.

Md., Baltimore—Amer. Can Co., 120 Bway., New York City, having plans prepared for rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation. About $500,000. Private plans.

Md., Curtis Bay (Baltimore P. O.)—Union Acid Wks. have acquired 250 x 520 ft. site on Aspen St. near Curtis Ave. and plans to extend plant.

N. C., China Grove—United Mills Co., Hickory, N. C., plans to build 1 story, 125 x 400 ft. cotton mill, brick and timber, along tracks of Southern R.R. here. About $50,000. R. C. Biberstein, 614 Elizabeth Ave., Charlotte, archt. and engr.

Fla., Tampa—Bd. Port Comrs. considering plans submitted by W. M. Black, for terminal, to include 850 ft. slip, warehouses on both sides, phosphate elevator, naval stores, general terminal facilities, machinery, etc. About $1,500,000.

Fla., Tampa—O. Daniels, Estuary, plans to build 3 story, 100 x 105 ft. garage, on Franklin St.

O., Cincinnati — Rendigs, Panzer & Martin, archts., Palace Theatre Bldg., open bids about Sept. 15 building 1 story, brick and steel, pottery, with 45,000 sq.ft. floor space, on Lester Rd., for Wheatley Pottery Co., 2426 Reading Rd.

O., Cleveland—J. H. Rooke, 507 Williamson Bldg., had plans prepared by W. W. Hodges, archt. and engr., Lennox Bldg., for 4 story, 200 x 280 ft., rein.-con., brick and steel factory, rein.-con. flooring, brick foundation, on Ashland Rd. and Cedar Ave. About $250,000.

Ind., Bedford—Bedford Steel & Constr. Co., Engrs., Bedford, preparing plans for 1 story canning factory. Owner's name withheld.

Ind., Michigan City—Amer. Iron & Steel Corp. plans to build 1 story concrete, brick and steel plant, to have 250 tons daily capacity. First unit to include 6 open hearth furnaces, 12-mill sheet steel plant and other mills for manufacture of plates, rods, bars, slabs, rails, wire and other direct and by-products of industry. About $50,000,000. L. L. Slick of Slick-Knox Co., Pittsburgh, Pa., dir. Architect's name withheld.

Ind., Valparaiso—Pioneer Truck Co. plans to build 100 x 300 ft. plant. About $100,000. O. M. Freir, pres.

Mich., Detroit — Detroit Motor Bus Co., 1701 Dime Bank Bldg., plans to build 1 story, brick and steel garage and repair shop, rein.-con. flooring, concrete foundation, on Jefferson Ave. Architect not selected.

Mich., Detroit—Ft. Shelby Garage, c/o J. Gillespie, Ft. Shelby Hotel, plans to build 4 story, 130 x 150 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Howard and 1st Sts. A. Kahn, Marquette Bldg., archt.

Mich., Saginaw—See "Buildings."

Wis., Sheboygan—Sheboygan Parlor Furnture Co., South Water St., having preliminary plans prepared by Juul & Smith, archts., Imig Bldg., for 4 story, 60 x 174 ft., rein.-con., brick and steel factory, rein.-con. flooring. About $75,000.

Mont., Forsyth—Montana Sugar Co. having preliminary plans prepared by W. E. Farlow, archt., Forsyth, for sugar factory. About $1,500,000.

Mo., Aurora—Juvenile Shoe Co., Advertising Bldg., St. Louis, soon receives bids building brick factory here. About $60,000. T. P. Barnett Co., Arcade Bldg., St. Louis, archts. and engrs. Noted June 10.

Mo., Butler—City voted $65,000 bonds to build new electric power plant. J. F. Smith, clk. Engineer not selected.

Mo., St. Louis—Bowen Motor Ry., Title Guarantee Bldg., having plans prepared by O. J. Popp, archt., Odd Fellows' Bldg., for factory and power house on Maplewood St. About $385,000.

Okla., Henryetta—Cogswell Refining Co. having plans prepared by J. C. Bertsch, engr., Tulsa, for petroleum refinery of 2,000 bbl. capacity. About $250,000. J. F. Cogswell, pres.

Col., Denver—Federal Glass Co. c/o Sylvester & Co., 1st Natl. Bank Bldg., plans to build plant, to include office building, circular glass house, factory with 10,000 sq. ft. floor space, and gas plant. About $250,000.

Col., Denver — Mountain States Packing Co., Gas & Electric Bldg., plans to build packing plant, to include not less than 5 buildings, adjoining stock yards, in northeastern section of city. About $2,000,000. Architect's name withheld.

Col., Denver — Western Mfg. Co., Evans Blk., plans to build 1 story plant. About $250,000. Architect not selected.

Wash., Yakima—Puritan Rubber Co., 16-17 Wilson Bldg., plans to build 60 x 250 ft. factory. About $250,000. W. L. Lanning, Wilson Bldg., engr.

N. S., North Sydney—Farquohai & Son soon receives bids building 2 story, 50 x 100 ft. rein.-con. warehouse, office, etc. H. E. Gates, Halifax, archt.

Ont., Ford City—Fisher Body Co. of Canada having plans prepared by A. Kahn, archt., Walker Rd., Walkerville, for 4 story, 90 x 192 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, also 12 x 92 ft. rein.-con. loading platform, on St. Lukes Rd.

Ont., Kingston — Thomas Watson Co., Woodstock, soon receives bids building factory here. About $100,000.

BIDS DESIRED

Mass., Wrentham — Until Aug. 31, by Kendall, Taylor & Co., archts. and engrs., 93 Federal St., Boston, constructing 1 story, 50 x 70 ft. cold storage plant and 1 story, 40 x 90 ft. industrial building, brick and steel, concrete flooring and foundations, at State School here for Commonwealth of Massachusetts. About $100,000. Noted April 22.

N. Y., Buffalo—Until Sept. 29, by State Hospital Comn., Capitol, Albany, building addition to central heating plant and coal and ash handling equipment at State Hospital here. L. F. Pilcher, state archt.

N. Y., Long Island City—Until Sept. 1, by J. M. Baker, archt. and engr., 9 Jackson Ave., building 1 story, 67 x 100 ft., rein.-con., brick and steel, addition to garage, rein.-con. flooring, concrete foundation, on 8th St., for J. P. Conato. About $50,000.

N. Y., New York—Until Sept. 7, by J. H. Delaney, comr. Transit Constr., 49 Lafayette St., building 2nd brick, concrete and steel addition to shops, on Lenox Ave. and 148th St.

La., New Orleans—Until Sept. 7, by Bd. Port Comrs., furnishing or furnishing and erecting all structural steel required for the Poydras St. freight shed and extension; advertised in this issue.

O., Hamilton — Herring - Hall — Marion Safe Co., receiving bids building 2 story, rein.-con. and brick factory, rein.-con. flooring, concrete foundation. About $75,000.

O., Norwood (Cincinnati P. O.) — Safe Cabinet Co. receiving bids building 1 story, 80 x 150 ft., brick and steel factory. B. L. Baldwin, 2d Natl. Bank, archt. and engr.

Ind., Indianapolis—Westinghouse Lamp Co., Watsessing Ave., Bloomfield, N. J., receiving bids building 4 story, 100 x 200 ft., rein.-con., brick and steel factory, rein.-con. flooring, on La Salle Ave., here. Cost including equipment $2,000,000. Private plans.

Wis., Sheboygan—Phoenix Chair, South 12th and Virginia Sts., and Juul & Smith, archts., Imig Bldg., receiving bids building 4 story, 200 x 400 ft., brick, rein.-con. and steel factory, rein.-con. floors, brick foundation. About $200,000. Juul, 805 North 8th St., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Cambridge**—C. A. Briggs Co., 1[illegible] Main St., let contract building 5 story, [illegible] x 180 ft., rein.-con. factory, rein.-con. flooring, concrete foundation, on Ames St., to W. M. Bailey Co., 88 Broad St., Boston. About $200,000.

★**Mass., Everett** (Boston P. O.)—Boston Varnish Co., 2d St., let contract building 3 story, 60 x 100 ft. addition to paint and varnish factory, brick and steel, concrete foundation, on East Sumner St., to J. E. Locatelli & Co., Inc., 46 Cornhill St., Boston. About $75,000.

★**Mass., Framingham**—Record Realty Co. let contract building 1 and 2 story, 80 x 175 ft. concrete, brick and steel factory, rein.-con. flooring, concrete foundation, on Union Ave., to E. A. Abbott Co., 3 Park St., Boston. About $100,000.

★**Mass., Lynn**—Hilliard & Merrill, Inc., 206 Broad St., let contract building 7 story, 130 x 480 ft., rein.-con., steel and brick factory and warehouse, rein.-con. flooring, concrete foundation, on Eatern Ave., to W. M. Bailey Co., 88 Broad St., Boston. About $1,000,000.

★**Mass., New Bedford**—Nashawena Mills Co., Bellevue Ave., let contract building 2 story, 70 x 150 ft., concrete, brick and steel addition to mill, rein.-con. flooring, concrete foundation, to J. W. Bishop Co., 411 Times Bldg. About $100,000.

★**Mass., Peabody**—A. C. Lawrence Leather Co., 161 South St., Boston, let contract building 1 story, 70 x 70 ft., concrete, steel and brick garage, rein.-con. flooring, concrete foundation, to E. H. Porter Co., 13 Wallis St., here. About $50,000.

★**Mass., South Hanover**—R. C. Waterman Co. c/o J. M. Hall, 101 Milk St., Boston, let contract building 1 story, brick, concrete and steel factory, rein.-con. flooring, concrete foundation, here, to E. Curtiss, Scituate. About $70,000.

★**Mass., Springfield**—Armory Sq. Realty Trust, 274 Main St., will alter present building and construct 1 story, 80 x 125 ft. brick, concrete and steel garage, concrete flooring and foundation, on North Main St. About $75,000. Work will be done by day labor.

★**R. I., Auburn** (Providence P. O.)—Universal Winding Co. let contract building 3 story, concrete, brick and steel addition to plant, concrete foundation, to C. I. Bigney Constr. Co., 357 Westminster St., Providence. About $175,000.

★**R. I., Pawtucket**—B. McCaughey & Co., Slater Trust Bldg., let contract building 3 story, 65 x 90 ft., brick, concrete and steel warehouse, concrete foundation, on East Ave. and Timothy St. About $80,000. Private plans.

★**R. I., Pawtucket**—What Cheer Chemical Co., Grotto Ave., let contract building 3 story, 40 x 62 ft., brick and concrete addition to boiler house, rein.-con. flooring, concrete foundation, to J. F. Cole, 81 Niagara St., Providence. About $50,000.

★**Mass., Taunton** — Municipal Lighting Comn. let contract improving and building addition to plant on West Water St. to Westinghouse Electric Co., 6905 Tusquehoma St., Pittsburgh, Pa. About $400,000. Noted July 22.

★**Conn., Bridgeport** — United Illuminating Co., 84 Temple St., New Haven, let contract building superstructure of 1 story, 140 x 150 ft., brick, rein.-con. and steel power plant, rein.-con. flooring, on East Main St., to Casey & Hurley, 120 Pequonnock St. About $1,500,000.

★**Conn., Hartford**—S. K. F. Ball Bearing Co., 330 New Park Ave., let contract building 1 story, 77 x 200 ft., brick and steel factory, rein.-con. flooring, concrete foundation, to J. H. Grozier Co., 721 Main St. About $75,000.

★**Conn., New Haven** — New York, New Haven & Hartford R.R., Meadow St., let contract remodeling machine shop, locker buildings and storehouse, also constructing 1 story, 100 x 120 ft. brick and steel addition to freight yard, rein.-con. flooring, concrete foundation, to C. W. Murdock, Inc., 185 Church St. About $150,000.

dustrial Works (Continued)

★**Conn., Plantsville** — Atwater Mfg. Co. cently let contract building machine shop stroyed by fire, 2 story, 62 x 80 ft., brick d steel, concrete foundation, to H. Wales nes Co., 134 State St., Meriden. About 50,000. Noted July 15.

★**Conn., Portland** — Portland Fdry. Co., reestone St., let contract building 2 story, 0 x 50 ft., brick, concrete and steel addition foundry, rein.-con. flooring, concrete foundation, to T. Sellew, Portland. About 50,000.

★**Conn., Waterbury**—M. J. Daly & Sons Co., 543 Bank St., let contract building 1 story, 100 x 175 ft., brick and concrete warehouse, rein.-con. flooring, concrete foundation, to G. S. Chatfield Co., 138 Division St. About $100,000.

★**Conn., Waterbury**—Maltby Garage, 33 Union St., let contract building 1 story, 65 x 200 ft., brick, concrete and steel garage, rein.-con. flooring, concrete foundation, on East Main St., to Tracy Bros. Co., 52 Benedict St. About $50,000.

★**N. Y., New York**—J. J. Buckley Syndicate, 233 Bway., let contract building 8 story, brick, rein.-con. and steel printing plant and office, rein.-con. flooring, concrete foundation, on 9th Ave. between 33rd and 34th Sts., to J. O. Devlin Constr. Co., 233 Bway. About $3,500,000.

★**N. Y., New York**—Castle Realty Co., c/o G. F. Pelham, archt. and engr., 200 West 72nd St., will build additional rein.-con. steel and brick story to factory, rein.-con. flooring, at 446 West 31st St. About $200,000. Work will be done by day labor.

★**N. Y., New York**—C. Schuckin, 1601 University Ave., will build 2 story, 100 x 100 ft., brick and steel garage, rein.-con. flooring, on 176th St. About $125,000. Work will be done by day labor.

★**N. J., Passaic**—Smith Tire Co. let contract building 60 x 200 ft. tire factory, rein.-con. and steel, to Egan & Montague, 1 Montgomery St., Jersey City. About $150,000.

★**Pa., Phila.**—Hellwig Silk Dyeing Co., 9th and Buttonwood Sts., let contract building 2 story, 95 x 235 ft., concrete and brick factory, on Holmstead and Milnor Sts., to F. W. Van Loon, Perry Bldg. About $90,000.

★**Md., Baltimore** — Coca-Cola Co., Pratt St. and Market Pl., let contract building 4 story, 196 x 534 ft. factory and cooperage plant, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Fort Ave., to A. Tufts Co., c/o Raymond Co., 921 Munsey Bldg. About $1,000,000. Noted Aug. 5.

★**Md., Crisfield** — Potomac Poultry Food Co., 802 Keyser Bldg., let contract for concrete work on 1 story, 125 x 144 ft., rein.-con. and steel plant, to Spencer Constr. Co., 514 Garrett Bldg., Baltimore; sheet metal, to Vaile & Young, Bush and Ridgely Sts., Baltimore; steel work, to Shoemaker & Satterthwait, Pottstown, Pa. Noted Aug. 12.

★**O., Bedford**—D. Round & Son Co. let contract building 1 story, 90 x 120 ft., brick and steel addition to foundry, brick foundation, at Stop 2, to Du Perow Constr. Co., Plymouth Bldg., Cleveland. About $50,000.

★**O., Cincinnati** — Nash Motor Car Co., Gilbert Ave., let contract building 3 story, 80 x 225 ft., concrete and steel garage, on Reading Rd. and Morgan St., to Fisher-Devore, Blymer Bldg. About $150,000. Noted July 29.

★**O., Cleveland**—Bd. Educ., East 6th St. and Rockwell Ave., let general contract building 1 story, 40 x 200 ft. machine shop addition to high school, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Bway. and Fullerton Ave., to A. A. Lane Constr. Co., 1836 Euclid Ave., $87,960.

O., Cleveland Heights (Warrensville P. O.)—Bd. Educ. received bids building 2 story, 50 x 67 ft., rein.-con., brick and steel power plant, rein.-con. flooring, concrete foundation, at Public School, on Lee Rd., from P. Kirschner, Hippodrome Bldg., $41,-382; piping, Warden & Lees, 2450 Prospect Ave., $18,250; chimney, A. Custodis Chimney Co., 95 Nassau St., New York City, $12,150; ash pit, coal and ash handling machinery, Link Belt Co., Rockefe'ler Bldg., $18,430. Noted July 29.

★**O., Massillon**—Lucius Reinforced Tank Co. let contract building 1 story, 70 x 160 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to H. K. Ferguson Co., 6532 Euclid Ave., Cleveland. About $75,000.

★**O., Painesville**—Light Alloys Co. let contract building 1 story, 75 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to H. K. Ferguson Co., 6532 Euclid Ave., Cleveland. About $65,-000.

★**Ill., Chicago**—United States Industrial Alcohol Co. Inc., 27 William St., New York City, let contract building rein.-con. and steel warehouse, rein.-con. flooring, concrete foundation, on 37th and Western Aves., here, to G. A. Fuller Co., 175 5th Ave., New York City. About $500,000.

★**Wis., Sheboygan**—Ebenreiter Lumber Co., 1215 Erie Ave., let contract building 2 story, 42 x 157 ft., brick, rein.-con. and steel garage, rein.-con. flooring, brick foundation, to Verhulst Bros., 1615 Erie Ave.

★**Wis., Sheboygan**—Jenkins Machine Co., 315 North 8th St., let general contract building 1 and 2 story, 150 x 200 ft., brick, rein.-con. and steel machine shop, rein.-con. flooring, brick foundation, on North 8th St., to Verhulst Bros., 1615 Erie Ave. About $75,000.

★**Minn., Minneapolis**—Russell Miller Milling Co., Security Bldg., let contract building 1 story, 50 x 140 ft., rein.-con. and brick addition to warehouse, to B. H. Stahr, 401 Metropolitan Bank Bldg. About $65,-000. Noted July 15.

★**Cal., Pt. Loma**—See "Buildings."

★**Ont., Brantford**—Caxslutt Plow Co. let contract building 1 story, 70 x 200 ft. rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to H. K. Ferguson Co., 6532 Euclid Ave., Cleveland, O. About $75,000.

★**Sask., Saskatoon** — Canadian Natl. Ry., Ottawa, Ont., let contract building roundhouse to Shamon Bros., Saskatoon. About $125,000.

Buildings

PROPOSED WORK

Me., Brunswick — Church — C. R. Greco, archt., 8 Beacon St., Boston, soon lets contract building 1 story, 50 x 100 ft., brick and stone, for St. John the Baptist Society. About $100,000. T. Remy, pastor. Noted July 8.

Mass., Fall River—School—City having plans prepared by E. M Corbett, archt., 70 Bedford St., for 1 story, 140 x 200 ft., concrete, brick and steel, concete flooring and foundation, on Bowen St.

Mass., Fall River—Temple—Masonic Society having plans prepared by W. B. Robinson, archt., 57 North Main St., for 4 story, 72 x 140 ft., concrete and steel, on North Main and Elm Sts. About $150,000. D. T. Burdick, chn. Noted Aug. 5.

Mass., Gloucester—Hospital—Gloucester Hospital, Inc., having plans prepared by E. L. Phillips, archt., 191 Main St., for 2 story, brick, concrete and steel addition to Addison Gilbert Hospital.

Mass., Malden (Boston P. O.)—Business—F. H. Gowing, archt., 18 Tremont St., Boston, soon lets contract building 3 story, 72 x 105 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Common Sq., for Trafton Realty Co. Cost between $150,000 and $200,000. Noted July 22.

Mass., Malden (Boston P. O.)—Store and Office—F. H. Gowing, archt., 18 Tremont St., Boston, preparing plans for 3 story, 76 x 100 ft. brick and steel, on Main St. About $125,000. Owners name withheld.

Mass., Needham (Boston P. O.)—School—School Comn. having plans prepared by MacNaughton & Robinson, archts., 101 Tremont St., Boston, for 2 story, 44 x 160 ft. with 40 x 60 ft. wing, concrete, brick and steel, concrete foundation. About $125,000. Noted Aug. 5.

Mass., New Bedford—School—Bd. Educ. rejected bids July 29, and will have revised plans prepared by Smith & Howland, archts., Bartlett Bldg., for 3 story, 153 x 166 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Summer St. About $700,000. Work will be readvertised. Noted Aug. 12.

Mass., Roxbury (Boston P. O.)—School—Congregation Adath-Jeshuron, 397 Blue Hill Ave., plans to build 2 story, 70 x 120 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Howland St. About $160,000. Blackall, Clapp & Whittemore, 20 Beacon St., Boston, archts.

Mass., South Byfield—Dormitory, etc.—Dummer Academy plans to build brick and steel dormitory, gymnasium and central heating plant. About $250,000. Architect not selected.

Mass. Webster—Store, etc.—M. Holden, 51 Klebert Ave., plans to build 3 story, 100 x 120 ft., concrete, brick and steel store, auditorium, bowling alley, etc., rein.-con. flooring, concrete foundation, on Main St. About $100,000. Funk & Wilcox, 294 Washington St., Boston, archts.

Mass., Winchester—Memorial—City having plans prepared by R. S. Vinal, archt., 46 Cornhill St., Boston, for Memorial Community Building. About $100,000.

Mass., Worcester—Hotel—Bancroft Realty Co., Franklin St., plans to build rein.-con., brick and steel addition to Bancroft Hotel on Portland St. About $1,000,000. Eisenwein & Johnson, Buffalo, N. Y., archts.

R. I., Providence — Laboratory — Brown University, Prospect St., having plans prepared by Day & Klauder, archts. and engrs., 925 Chestnut St., Phila., for 3 story, 50 x 200 ft., brick.

Conn., Bridgeport — Church — St. Peter's Roman Catholic Society, 1562 Fairfield Ave., having plans prepared by O'Connell & Shaw, archts., 18 Boylston St., Boston, for 1 story, 70 x 150 ft., brick and steel. About $100,000. C. A. Leddy, pastor.

Conn., Bristol—High School—Bd. Educ. rejected bids Aug. 3, and will have revised plans prepared by W. Potter, archt., 22 East 17th St., New York City, for 4 story, 150 x 250 ft. brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, at Dunbar Meadows. About $950,000. Work will be readvertised. Noted Aug. 12.

Conn., New Britain—School—Bd. Educ. soon lets contract building 3 story, 60 x 240 ft. ell, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Tremont St. About $35,000. D. K. Perry, 27 West Main St., archt. Noted April 29.

N. Y., New York—Office—Union Sulphur Co., 17 Battery Pl., having plans prepared by H. O. Chapman, archt. and engr., 334 5th Ave., for 14 story, 30 x 89 ft., rein.-con., brick and steel, rein.-con. flooring concrete foundation, on Rector and West Sts. About $400,000.

N. Y., Schenectady — Theatre — F. F. Proctor, 1564 Bway., New York City, having plans prepared by J. M. Merron, archt. and engr., 1564 Bway., New York City, for brick and steel, here. About $400,000.

N. J., Elizabeth—High School—Bd. Educ. plans to build 24 room school. About $700,000. V. Myralag, mayor.

N. J., Franklin—School—Bd. Educ. receives bids about Sept. 1, building 2 story, 60 x 100 ft., brick and stone addition, stone foundation. About $150,000. Guilbert & Betelle, 2 Lombardi St., Newark, Archt.

N. J., Madison — Convent — Sisters of Charity plan to build addition to St. Elizabeth's Convent here. About $350,000. Architect not selected.

N. J., Morris Plains—Infirmary—State Hospital Comn., Trenton, plans to build 3 story, 88 x 230 ft., brick and steel. About $400,000. F. H. Bent, 142 West State St., Trenton, archt.

N. J., Newark—Office—Bd. Trade, 800 Broad St., soon receives bids building 10 story, steel, brick and stone, on North Treat Pl. About $1,000,000. Guilbert & Betelle, 2 Lombardi St., archt.

N. J., Newark—School—Bd. Educ. soon receives bids building 4 story, 106 x 128 ft. addition to Cartaret School on Oliver St., concrete and brick. Cost to exceed $100,000. J. H. and W. C. Ely, Firemans Trust Bldg., archts. Noted July 22.

N. J., West Orange—School—Bd. Educ. having sketches made by Guilbert & Betelle, archts., 2 Lombardi St., Newark, for Gregory School, brick and stone. About $450,000.

Pa., Altoona—Community Hall—City having plans prepared by J. Millard archt., Hutchinson Bldg., and F. D. Hain, city engr., for 3 story, concrete, brick and steel, on 13th Ave. and 12th St. About $500,000. Election Nov. 2 to vote on bonds.

Pa., Altoona—Theatre—J. and I. Silverman, 1512 11th Ave., having plans prepared by H. C. Hodgens, archt., 130 South 15th St., Phila., for 3 story, 150 x 200 ft., concrete, brick and steel, tile flooring, on 11th Ave. About $300,000.

Buildings (Continued)

Pa., Phila.—Office—M. Fielding, archt., 520 Walnut St., soon lets contract altering 4 story, concrete and brick, on 12th and Chestnut Sts. About $100,000. Owner's name withheld.

Pa., Reading—Hospital—Reading Hospital, Front and Spring Sts., plans to build addition. Cost to exceed $100,000. E. F. Stevens, 9 Park St., Boston, Mass., archt.

Pa., Roxborough (Phila. P. O.)—Club—Green Valley Country Club having plans prepared by J. S. Fuller, archt. and engr., 1537 Chestnut St., for 2 story, 50 x 80 ft., granite addition to include laying gravel walks, etc. About $100,000.

Pa., Sipesville—Bank—Sipesville First Natl. Bank plans to build 3 story, 80 x 100 ft. concrete, brick and steel. About $100,000. C. B. Korns, pres.

Md., Baltimore — Club — Maryland Club, Charles and Read Sts., plans to improve building. About $100,000.

Md., Baltimore—Hospital—J. E. Sherry, archt., 409 Calvert Bldg., opens bids about Sept. 15, building 7 story, 70 x 185 ft., rein.-con. and brick addition to Woman's Hospital, concrete foundation, on Wolfe and Monument Sts., for Johns Hopkins Hospital About $125,000. W. Smith, Bway. and Monument St., supt.

Md., Baltimore—Office—C. N. Friz, archt., 814 Lexington Bldg., revising plans and receives bids about Sept. 5, building 10 story, 90 x 140 ft. steel, brick and stone, concrete foundation, on Courtland and Franklin Sts., for Standard Oil Co., Pratt and South Sts. About $850,000. Noted April 15.

Md., Salisbury—Hotel—Shoremans Hotel Corp. soon lets contract building 5 story, 71 x 149 ft. rein.-con., steel and brick, concrete foundation. About $250,000. J. Posey, 11 East Pleasant St., Baltimore, engr. T. W. Pietsch, Amer. Bldg., Baltimore, archt.

D. C., Wash.—Church and Chapel—Gunton Memorial Temple, Mathers Bldg., soon receives bids building church and temple. About $100,000 and $60,000 respectively. G. A. Prevost, chn. D. H. Smith, Union Trust Bldg., archt.

N. C., Greensboro—Community Houses—White Oak & Proximity Mills had plans prepared for 2 rein.-con. community houses, near here. About $250,000 each. T. Stafford, c/o Proximity Mills, ch. engr. Architect's name withheld.

N. C., Kernersville — School — Bd. Educ. plans to build school. About $100,000. A. Armfield, Greensboro, archt.

S. C., Columbia — Administration — Epworth Orphanage, Garners Ferry Rd., plans to construct new administration building. About $100,000.

Fla., Orlando—Hotel—F. H. Trimble, archt., Orlando, and associates, plan to build $1,000,000 hotel.

Tenn., Memphis—Church—La Belle Baptist Church having plans prepared by C. Deas, archt., Goodwyn Trust Bldg., and receives bids about October for brick and stone, on South Wellington St. and Edith Pl. About $100,000. D. A. Ellis, 462 Edith Pl., pastor.

Tenn., Memphis — Temple — Trades & Labor Council plans to build 65 x 168 ft. labor temple, on North 2nd St. About $250,000. A. Schwaeb, pres. Architect not selected.

Ky., Bowling Green—Hotel—G. M. Williamson plans to build 6 story hotel. About $700,000.

O., Cheviot (Cincinnati P. O.)—Bank—Garber & Woodward, archts., Union Central Bldg., Cincinnati, soon let contract building 2 story, 47 x 60 ft., brick and cut stone addition, on Glenmere and Harrison Aves., for Brighton Bank & Trust Co., Harrison and Coleraine Aves. About $100,000.

O., Cincinnati—Synagogue—Keneseth Israel Congregation, Hickman St., plans to build brick and steel, on Rochdale and Washington Sts. About $100,000. H. M. Price, Mercantile Library, archt.

O., Cleveland—Commercial—Chafer Co., 131 Champlain Ave., plans to build 4 story, brick and steel, brick foundation. About $100,000. J. E. Shafer, pres. Architect and engineer not selected.

O., Cleveland—Hospital—City having plans prepared for 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Scranton Rd. About $3,500,000. J. H. McDowell, city archt. S. S. Goldwater, 1 East 100th St., New York City, consult. archt. Noted May 6.

ROAD WORK—IDAHO

Bids were received by Bureau of Public Roads, Missoula, Mont., for constructing r in Nez Perce National Forest, Idaho Co., from (A) Otto Hansen, Empire State Bl Spokane, Wash.; (B) Rich, Markus & Crowe, Missoula; (C) General Constr. Co., Pey The unit bids were as follows:

	A	B	C
31.66 acres clearing, with burning	$200.00	$250.00	$22
16.17 acres grubbing	200.00	250.00	300
48,325 cu.yd. excavation (rock)	2.00	2.25	1
91,627 cu.yd. excavation (common)	.90	1.00	1
6,000 sta.yd. overhaul	.05	.10	
11.17 mi. finishing earth road	200.00	200.00	150
644.4 cu.yd. dry rubble masonry retaining wall	10.00	6.00	8
1,073 lin.ft. 1x2 log culverts in place	3.00	1.50	4
50 lin.ft. 1½x2 log culverts in place	3.50	1.75	4
206 lin.ft. 2x2 log culverts in place	3.75	2.00	4
78 lin.ft. 2x3 log culverts in place	5.00	2.25	5
72 lin.ft. 3x3 log culverts in place	5.50	3.00	6
324 sq.ft. log bridge abutments in place	1.00	1.50	5
48 lin.ft. bridge decking	10.00	12.00	11
Extended totals	$203,415	$222,579	$232,665
Alternate:			
31.66 acres clearing, without burning	$175.00	$240.00	$200.00
1,073 lin.ft. 12-in. corrugated metal pipe in place	2.75	2.25	3.00
50 lin.ft. 18-in. corrugated metal pipe in place	3.90	3.25	5.00
206 lin.ft. 24-in. corrugated metal pipe in place	5.25	4.25	6.50
78 lin.ft. 30-in. corrugated metal pipe in place	7.50	5.50	7.50
72 lin.ft. 36-in. corrugated metal pipe in place	9.50	6.00	8.50
Extended totals	$203,959	$224,391	$232,532
East Side of River:			
14.6 acres clearing, with burning	200.00	250.00	225.00
7.3 acres grubbing	200.00	250.00	300.00
22,947 cu.yd. excavation (rock)	2.00	2.25	2.05
34,729 cu.yd. excavation (common)	.90	1.00	1.35
Extended totals	$81,530	$91,835	$99,400
Alternate for East Side of River:			
14.6 acres clearing, without burning	$175.00	$240.00	$200.00
Extended total	$2,555	$3,504	$2,920
Main sub-total	203,415	222,579	232,665
Main alternate subtotal	203,959	224,391	232,532
100,000 lb. T.N.T. (subtract)	15,000	27,000	15,000
20,000 detonators, fuse fire, No. 8 (subtract)	500	400	600
Main subtotal	$187,915	$195,179	$217,065
Main alternate subtotal	$188,459	196,991	216,932
Freight on explosives	3,000	3,000	3,000
Engineering and contingencies	14,000	14,000	14,000
Extended main total	$204,915	$212,179	$234,065
Extended main alternate total	$205,459	$213,991	$233,932

O., Cleveland—Office—Syndicate, c/o J. Laronge, 214 Williamson Bldg., plans to build 2 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, at rear 1900 Euclid Ave. About $150,000. Architect not selected.

O., Fairport—Theatre—E. E. Lawrence having plans prepared by R. H. Hinsdale, archt., Bangor Bldg., Cleveland, for 1 story, 44 x 112 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $100,000.

Mich., Detroit — Club — Detroit Council 305, Knights of Columbus, c/o Columbus Bldg. Co., 930 Woodward Ave., plans to build 3 story, brick, concrete, stone and steel, rein.-con. flooring, concrete foundatoin, on Woodward Ave. About $500,000. Architect not selected.

Mich., Detroit — Temple — Congregation Temple Beth El, 580 Woodward Ave., plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 153 x 200 ft. lot on Woodward Ave. About $1,000,000. A. Kahn, Marquette Bldg., archt. and engr.

Mich., Saginaw—Office, etc.—Amer. Safety Navigation Co., c/o Managing Secretary Bd. Commerce, having tentative plans prepared for first unit of plant, to include 6 story office building and 1 story factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 6th St. along Saginaw River. Total cost, $10,000,000. Private plans.

Wis., Clintonville—Armory and Community—City plans to build 4 story, 100 x 200 ft. rein.-con. brick and steel on Main St. About $100,000. J. Spearbraker, clk Architect not selected.

Wis., Durand—High School—Bd. Educ. plans to build 2 story, brick, concrete and tile, rein.-con. flooring, concrete foundation. About $100,000. H. Miles, secy. Architect not selected.

Wis., Hartford—High School—Bd. Educ. plans to build 4 story, 130 x 300 ft. Junior High School, brick, rein.-con. and steel, brick foundation. About $500,000. A. Sawyer, Hartford, chn. Architect not selected.

Ia., Cloverdale—School—Bd. Educ. voted $100,000 bonds to build school. Architect not selected.

Ia., Coon Rapids—School—Bd. Educ. having plans prepared by Kieffer & Jones, archts., Masonic Temple, Des Moines, for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete flooring. About $100,000.

Ia., Mason City — Temple — Masonic Cathedral Assn. plans to build rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $250,000. Architect and engineer not selected

Ia., Red Oak—School—Bd. Educ. plans to build school. About $110,000 Architect not selected.

Minn., Albert Lea — Church — First Lutheran congregation plans to build church here. About $100,000. Architect not selected.

Minn., Bemidji—High School—Bd. Educ. plans to build 3 story, rein.-con. and brick high school. About $500,000. Architect not selected.

Minn., Duluth—Schools—City having plans prepared by Croft & Boerner, archts., Lonsdale Bldg., for school in Chester Park Dist., cost $200,000, addition to Stowe School on 101st and Grand Aves., $100,000, and addition to Morgan Pk. School, $100,000. Bonds voted for above projects.

Minn., Fergus Falls—Hotel—City plans to build 150 room, rein.-con. and brick. About 150,000. Architect not selected.

Minn., Lake Park—School—Bd. Educ. rejected bids July 27, building 2 story, 60 x 90 ft., brick and frame. Noted July 8.

Minn., St. Paul—Club and Hall—German Hall Bldg. Assn., c/o J. K. Schmit, 623 Fuller Ave., plans to build 3 story, 110 x 120 ft., brick and stone, on Rice and Aurora Sts. About $200,000.

Minn., Wayzata — School — Bd. Educ having revised plans prepared and receives bids in fall building 1 story rein.-con. and brick. About $270,000. Hewitt & Brown, 716 4th Ave. S., and Tyrie & Chapman, 320 Auditorium Bldg., Minneapolis, archts. Noted May 13.

Kan., Coffeyville — High School — City voted $350,000 bonds to build Junior High School, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. Architect not selected.

Buildings (Continued)

Neb., Bellevue—Seminary—Chinese Mission Society plans to build seminary. About $650,000. Address, E. J. McCarthy, 5035 Bedford Ave., Omaha.

Neb., Belvidere—School—Bd. Educ. plans to build 3 story, 56 x 94 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $110,000 W. E. Hulse & Co., Hutchinson, Ky., archts.

Neb., Gering—School—Bd. Educ. plans to build school in 2d Ward. About $120,000. Architect not selected.

Neb., Hastings—Club—Elks Lodge plans to build 4 story, rein.-con. and brick, rein.-con. flooring. About $200,000. Architect not selected.

Neb., Nebraska City—Memorial—City Comrs. plan election to vote on $100,000 bonds to build soldiers' memorial. F. Cook, clk.

Mo., Kansas City—Sales—R. P. Dice Motor Sales Co., 3823 Bway., had plans prepared by Smith, Rea and Lovitt, archts., Finance Bldg., constructing 3 story, 60 x 123 ft., rein.-con., brick and terra cotta, on 14th and Baltimore Sts.

Mo., St. Louis—Church—Eden Emanuel Church had plans prepared by Lee & Rush, archts., Syndicate Trust Bldg., for brick and timber. About $100,000.

Mo., St. Louis—Hospital—Sisters of Charity, 3529 Pine Blvd., having preliminary plans prepared by Lee & Rush, archts., Syndicate Trust Bldg., for rein.-con. and brick, rein.-con. flooring. About $2,000,000.

Mo., St. Louis—Institution—Little Sisters of the Poor having plans prepared by Lee & Rush, archts., Syndicate Trust Bldg., for brick addition. About $250,000.

Mo., St. Louis—Office—Central States Life Insurance Co., Central Natl. Bank Bldg., soon receives bids constructing rein.-con. and brick. About $150,000. T. P. Barnett Co., Arcade Bldg., archts. and engrs.

Mo., St. Louis—Office—Widman, Walsh & Pankan, archts., Wainwright Bldg., open bids about Sept. 15, building 4 story, 144 x 250 ft., rein.-con. and brick, rein.-con. flooring, on Olive St., for Lowenstein Bros. Real Estate Co., Wainwright Bldg. About $750,000.

Mo., St. Louis—School—Washington University, Skinker and Lindell Sts., having plans prepared by Cann & Corrubia, archts., De Menil Bldg., for 3 story, 35 x 85 ft., rein.-con. and brick. About $100,000.

Tex., Austin—Hospital—State Bd. Control having plans prepared by C. H. Page & Bro., archts., Austin Natl. Bank Bldg., for 2 story, rein.-con., on West 6th St., for Texas State Confederate Home. About $110,000. S. B. Corvell, chn.

Tex., Dallas—Theatre—J. H. Jones, 708 Goggan Bldg., Houston, having plans prepared by Lang & Mitchell, archts., Amer. Exch. Natl. Bank Bldg., for 4 story, 100 x 150 ft., rein.-con. on Commerce and Prather Sts. About $300,000.

Tex., Ft. Worth—Home—Comrs. Tarrant Co. having plans prepared by Sanguinett & Staats, archts., 1st Natl. Bldg., for 2 story concrete and brick, concrete foundation. About $100,000. R. V. Glenn, engr.

Okla., McAlester—Temple—Abbott Pike Lodge having plans prepared by Thompson & Harding, archts., 504 Southern Trust Bldg., Little Rock, Ark., for 5 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $500,000.

Col., Denver — Office — See "Industrial Works."

Col., Greeley—Hospital—Weld Co. having plans prepared by W. N. Bowman, archt., Central Savings Bank Bldg., Denver, for 3 story, 40 x 130 ft., rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation. About $110,000.

Cal., Los Angeles—Theatre—A. R. Erlanger, 214 West 42nd St., New York City, plans to build brick and stone, here. About $500,000. R. R. Anderson, 214 West 42nd St., New York City, archt. and engr.

Cal., San Francisco—Theatre—A. R. Erlanger, 214 West 42nd St., New York City, plans to build brick and stone, here. T. R. Anderson, 214 West 42nd St., New York City, archt. and engr. About $500,000.

N. S., North Sydney—Office—See "Industrial Works."

BIDS DESIRED

Conn., Hartford—High School—Until Sept. 7, by Bd. Educ., building 3 story, 90 x 160 ft., brick, concrete, steel and stone, rein.-con. flooring, brick and concrete foundation, on Maple Ave. About $750,000. Whiton & McMahon, 36 Pearl St., archts. Noted Feb. 26.

Conn., Waterbury—Hospital—Until Sept. 15, by City Health Bd., building 2 story brick, concrete and steel, rein.-con. flooring, concrete foundation, on Watertown Ave. About $200,000. Cross & Cross, 681 5th Ave., New York City, archts. Noted Aug. 5.

N. Y., Brooklyn—Hospital—Until Sept. 20, by Dept. Pub. Welfare, Municipal Bldg., New York City, furnishing labor and material for general construction and electrical work excluding plumbing, heating and ventilating, for hospital on New Cumberland St., here. B. S. Coler, comr. Former bids rejected. Noted June 17.

N. Y., Great Neck—Schools—Until Sept. 10, by W. S. Bessell, archt. and engr., 56 West 45th St., New York City, building two 2 story, brick and stone, brick foundation, for Bd. Educ. About $400,000. Noted Aug. 19.

N. J., Glassboro—School, etc.—Until Sept. 14, by F. H. Bent, archt., 142 West State St., Trenton, building 3 story, 125 x 301 ft. school and 1 story, 41 x 48 ft. boiler plant, rein.-con., brick, steel and terra cotta, here, for State Bd. Educ., Trenton. About $700,000. Noted July 29.

N. J., Newark—Office—J. H. and W. C. Ely, archts., Firemans Trust Bldg., receiving bids building 16 story, 100 x 200 ft. concrete, steel and stone, on Broad and Clinton Sts., for Merchants Natl. Bank, 770 Broad St.

O., Cincinnati—Clubhouse—University Club, 4th St. and Bway., receiving bids remodeling 4 story, 50 x 125 ft., rein.-con., brick and steel, concrete foundation. About $100,000. Noted June 10.

Mich., Detroit—Library—Until Sept. 6, by Library Comn., building 2 story, 60 x 100 ft., brick, rein.-con. and steel, rein.con. flooring, concrete foundation, on Davison Rd. About $100,000. Donaldson & Meier, 1314 Penobscot Bldg., archts. Noted July 29.

Mich., Detroit—Schools—Until Sept. 8, by Bd. Educ., building 2 story, 56 x 100 ft. addition to Lincoln School, on Brady and Livingstone Sts., also 2 story, 85 x 120 ft. addition to Thirkell School on 14th Ave. and La Salle Gardens North, rein.-con., brick and steel, rein.-con. flooring, concrete foundations. Malcolmson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Ia., Decorah—Library—Until Aug. 30, by Magney & Tusler, archts., 450 Builders Exch., Minneapolis, constructing 2 story, 70 x 80 ft., brick and stone, at Luther College, here. About $100,000. C. K. Preus, pres.

Minn., Montevideo—School—Until Sept. 14, by Bd. Educ. building 2 story rein.-con. and brick. About $125,000. W. B. Ittner, Bd. Educ. Bldg., St. Louis, Mo., and Stebbins & Haxby, 450 Auditorium Bldg., Minneapolis, archts.

Tex., Austin—Administration, Dormitory, etc.—Until Aug. 30, by Dept. Educ., constructing 40 x 80 ft. administration building, 40 x 80 ft. dormitory and 30 x 32 ft. heating plant, all 2 story, brick, rein.-con. and steel, rein.-con. flooring. About $110,000. A. W. Blanton, secy. Rose & Reed, 208 Bankers Trust Bldg., Waco, engrs.

Tex., Austin—Hospital—Until Aug. 30, by S. B. Cowell, ch. State Bd. Control, building 2 story, brick, rein.-con. and steel, rein.-con. flooring, on West 6th St. C. H. Page & Bro., Austin Natl. Bank Bldg., archts.

Tex., Edinburg—Jail and Court House—Until Sept. 15, by G. P. Brown, judge Hidalgo Co., building 2 story, 42 x 118 ft., brick, rein.-con. and steel, rein.-con. flooring. About $100,000. H. F. Kuehne, 824 Littlefield Bldg., Austin, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Arlington** (Boston P. O.)—School—Town let contract building 3 story, 63 x 140 ft., brick, rein.-con. and steel, rein.-con. flooring, on Acton St., to M. N. Ryan, 2 Central Sq., Cambridge. About $230,000.

★**Mass., Boston**—Bank and Business—Workingmen's Co-operative Bank, 101 Tremont St., let contract building 7 story, 45 x 75 ft., brick, concrete, steel and stone, rein.-con. flooring, concrete foundation, on Cornhill St., to W. A. and H. A. Root, Inc., 1 Beacon St. Cost between $150,000 and $175,000. Noted July 29.

Mass., North Beverly (Beverly P. O.)—School—Bd. Educ. received low bid Aug. 16, building 2 story, 100 x 102 ft., brick and steel, concrete foundation, on Conant St., from G. H. Hurd, 12 Giddings Ave. Beverly, $126,940. Noted Aug. 12.

★**Mass., Springfield**—Synagogue—Sons of Jacob congregation, 69 Belmont Ave., let contract building 1 story, 50 x 66 ft., brick, concrete and steel, concrete foundation, on Congress Ave., to F. Shour, 63 Church St. About $100,000.

★**Mass., Worcester**—Convent—St. Paul Roman Catholic Society, c/o E. P. Fitzgerald, archt., State Mutual Bldg., let contract building 3 story, 42 x 80 ft., concrete, brick and steel, concrete foundation, on High St., to J. J. Roberts, 4 Wall St.

★**N. Y., New York**—Office—See "Industrial Works."

★**N. Y., Poughkeepsie**—Church and Parish House—Dutch Reformed Society let contract building 3 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Hanscom Ave., to G. D. Campbell, 52 Market St. About $300,000.

★**N. J., Clinton**—Maternity Cottage, etc.—State Hospital Comn., Trenton, let contract building 2 story, 40 x 80 ft. maternity cottage and 59 ft. laundry, here, brick and steel, to Carroll & Pullen, Branch Ave., Princeton, $84,871 and $27,057 respectively.

★**Pa., Chambersburg**—Hospital—Chambersburg Hospital let contract altering and building 4 story, 45 x 150 ft., brick and concrete addition, to J. H. Eroh, Chambersburg. About $100,000.

★**Pa., Easton**—Martin & Kirkpatrick, archts, 130 South 15th St., Phila., let contract to Wark & Co., 239 South Broad St., Phila., constructing 4 story, 105 x 125 ft., brick, stone and concrete building, for Y. M. C. A., 9 Centre Sq., here. About $450,000. Noted July 22.

★**Pa., Johnstown**—Housing—Cambria Steel Co. let contract building one hundred 2 story 25 x 40 ft., brick and concrete dwellings, in Overbrook Sect., Southmont, to Nicola Constr. Co., Pennsylvania and Denniston Aves., Pittsburgh. About $400,000.

★**Pa., Philipsburg**—Hotel—Philipsburg Hotel will build 6 story, 80 x 100 ft., brick and stone. Cost to exceed $100,000. Work will be done by day labor. Noted Feb. 12.

★**O., Cleveland**—Bank—Morris Plan Bank, East 6th St. and Rockwell Ave., let contract building 2 story, 30 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Huron Rd. near East 9th St., to Central States Eng. Co., Citizens Bldg. About $200,000. Noted Aug. 12.

★**O., Cleveland**—Commercial—Knight-Norris-Gibbs Co., Wurlitzer Bldg., let contract building 4 story, 64 x 130 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 21st St. and Oregon Ave., to Serv. Constr. Co., 6110 Euclid Ave. About $200,000.

★**O., Cleveland**—Sales—Templar Realty Co., c/o M. Marmorstein, Williamson Bldg., let contract building 1 story, 60 x 180 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Serv. Constr. Co., 6110 Euclid Ave. About $100,000.

★**O., Cleveland**—Store—May Co., Ontario St., let contract remodeling 2 story brick, steel and terra cotta, to J. E. Christian & Co., 1307 St. Clair Ave. About $100,000. Noted Aug. 12.

★**O., Cleveland**—Synagogue—Ohr Chudose Beth Jacob Anshe Sfard-Congregation, c/o B. Gittlesohn, 2564 East 38th St., let contract building 2 story, 50 x 160 ft., brick and steel, brick foundation, on East 105th St. and Armor Ave., to A. Schwartz, 3599 East 131st St. About $100,000.

★**O., New Concord**—Dormitory—Muskingun College let contract building 2 story, 110 x 180 ft. fireproof, on college grounds, to Duiezweiler Bros., Zanesville. About $175,000; cost plus percentage basis.

★**Ind., Indianapolis**—Hospital—Methodist Hospital let contract building 6 story, 80 x 170 ft., rein.-con., brick and steel addition, rein.-con. and cork flooring, on 16th Ave., to J. G. Karstedt Constr. Co., Lemcke Bldg. Noted Aug. 12.

★**Ind., Lafayette**—Store—Hub Clothing Co. let contract building 4 story, 60 x 95 ft., rein.-con., brick and steel, rein.-con. flooring, to A. E. Kemmer, 644 North 7th St.

★**Ind., Lafayette**—Theatre—Luna Amusement Co. let contract building 2 story, 77 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, to A. E. Kemmer, 644 North 7th St.

★**Ind., Onward**—School—Bd. Educ. let general contract building 2 story, 80 x 125 ft., brick and stone, to S. I. Barnes, Logansport, $95,000; heating, to Orth Plumbing Co., Lafayette, $25,000.

Buildings (Continued)

Mich., Detroit—Schools—Bd. Educ., 50 Bway., received bids Aug. 11, building (1) addition to Leland School, (2) Carstens School, (3) Cooper School, (4) Custer School, (5) addition to Crossman School, (a) masonry, (b) carpentry, (c) heating, ventilating and plumbing, (d) electrical wiring, from J. Bollin Co., 906 Bellevue Ave., (1a) $117,490, (5a) $94,885; Corrick Bros., 507 Owen Bldg. (1a) $122,922, (2a) $80,500, (4a) $247,737; F. N. Cooper, Penobscot Bldg., (1a) $126,000; W. W. Horen, 470 Dix Ave., (1b $47, 992; H. M. Martens, 221 Moffat Bldg., (1b) $48,200, (4b) $66,800; E. Thiede, 287 Berlin St., (1b) $51,950, (2b) $32,595, (3b) $85,530, (4b) $65,950; Drake Avery Co., 40 State St., (1c) $91,915, (4c) $91,212; (5c) $51,821; Hub Electric Co., 41 East Jefferson Ave., (1d) $8,451, (4d) $15,980, (5d) $11,345; Iron City Eng. Co., 1332 Dime Bank Bldg., (1d) $8,620, (2d) $7,572, (3d) $12,650; J. Miller Electric Co., 258 Randolph St., (1d) $8,970, (3d) $12,668; W. H. Mueller, 1531 Vinewood St., (2a) $73,915; A. W. Kutche, 1742 3rd St., (2d) $76,200, (4a) $260,543; McEnhill Bros., 637 Baker Ave., (2b) $35,-981; W. J. Rewoldt, 506 Owen Bldg., (2c) $62,108; Irvine & Meier, 2289 Woodward Ave., (2c) $64,389, (4c) $96,293; J. H. Busby, 36 Cherry St., (2d) $7,800, (4d) $16,477, (5d) $11,178; Cooper Weidenmann Constr. Co., 1430 Penobscot Bldg., (3a) $191,270; Brayton Eng. Co., 907 Kresge Bldg., (3a) $197,379; Lennane Bros., 809 Union Trust Bldg., (3a) $225,338; Harcus & Co., 774 Russel St., (3b) $87,128, (4b) $66,896; J. W. Partlan, 51 Park Pl., (3c) $93,800, (5c) $53,886; Central Electric Co., 96 Bway., (2d) $13,275; (5d) $10,900; F. H. Goddard, 516 Franklin St., (4a) $251,-986; O'Connor Bros., Owen Bldg., (4c) $98,-115, (5c) $54,195; Gray Electric Co., 71 Jones St., (4d) $15,687; M. A. Mahoney, Penobscot Bldg., (5a) $84,848; H. G. Christman Co., 315 Stevens Bldg., (5a) $99,000; Southwick Pom Co., 1244 St. Jean Ave., (5b) $29,668. Noted July 22.

★**Minn., St. Paul**—Theatre, etc.—A. H. Heinmach, 467 Roy St., will build 3 story, 71 x 110 ft., rein.-con. and brick, on Prior Ave. About $200,000. Work will be done by day labor.

★**Neb., Omaha**—Lodge Bldg.—Woodmen of the World, c/o W. A. Fraser, W. O. W. Bldg., let general contract building 6 story, 44 x 132 ft., rein.-con., brick and steel, on 13th and Farnam Sts., to Vaughn Constr. Co., W. O. W. Bldg. About $150,000.

★**Mo., St. Louis**—Mercantile—Boyd Clothing Co., 7th and Olive Sts., let contract building 6 story, 88 x 150 ft., rein.-con. and brick, rein.-con. flooring, on Olive St., to J. Hill Constr. Co., Syndicate Trust Bldg. About $400,000.

★**Okla., Oklahoma**—Theatre—J. Sinopolou let contract building rein.-con. and brick, to Gross Constr. Co., 132½ West 2nd St. About $150,000.

★**Col., Sargents**—School—School Dist. let contract building 3 story, 100 x 130 ft. rein.-con. and brick, concrete foundation, to W. R. Sharpe, Monte Vista, $90,000; plumbing and heating, to Johnson-Davis Plumbing & Heating Co., Denver, $11,000.

★**Cal., Pt. Loma**—Club, etc.—California Natl. Club, 1023 2nd St., San Diego, let contract to Simpson Constr. Co., Marshall-Strong Bldg., Los Angeles, constructing club, $700,000, servants' building and garage, $100,000, bathing pavilion, $35,000, also golf links, $150,000, on Sunset Cliffs.

★**Ont., Ottawa**—School—School Bd. let contract building York St. School, to Bate MacMahon, Elgin St. About $458,000.

Federal Government Work

PROPOSED WORK

D. C., Washington — Electric Traveling Crane—Spec. 4239—Bureau Yards & Docks, Navy Dept., rejected bids received July 28 furnishing and installing 40 ton electric traveling bridge cranes for shipbuilding slips at Navy Yards at Phila., New York and Norfolk, Va. Work will be readvertised. Noted Aug. 19.

D. C., Wash.—Road Work—Bureau Pub. Rds., U. S. Dept. Agriculture, rejected bid received Aug. 18, grading dirt road in North Carolina, South Carolina and Georgia, known as Three State Project.

Wyoming — Irrigation — Federal Government Engineers making surveys in Valley of North Platte River, west of Casper, with view to possible irrigation of 7,500 acres. Alternate dam sites in Bessemer Canyon and Alcova will be considered.

Cal., San Diego — Hospital, Warehouse, etc.—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids building naval hospital, warehouse, repair base, shipyard and training station.

BIDS DESIRED

Del., Wilmington—Removing Wreck—Until Sept. 7, by U. S. Engr. Office, Old Federal Bldg., removing sunken steamer Sylvan Dell from Salem, N. J., the wreck to become property of contractor; advertised in this issue.

S. C., Paris Island—Improving Hospitals—Spec. 4262—Until Sept. 8, by Bureau Yards & Docks, Navy Dept., Wash., D. C., repairing, here; $10 deposit required for plans and spec. Noted Aug. 19.

Fla., Jacksonville — Pontoon Catamarans—Until Sept. 15, by U. S. Engr. Office, building and delivering, for dredge Major J. C. Mallery; advertised in this issue.

Miss., Vicksburg — Levee Work — Until Sept. 3, at office of 3d Mississippi River Dist., Box 404, building 260,000 cu.yd., here; advertised in this issue.

Tenn., Nashville—Barges—Until Sept. 13, by U. S. Engr. Office, 4th and 1st Natl. Bank Bldg., for 4 steel barges; advertised in this issue.

Ky., Louisville — Structural Steel, etc. — Until Sept. 9, by U. S. Engr. Office, furnishing and delivering structural steel, castings, etc., for Lock 44, Ohio River; advertised in this issue.

O., Marblehead—Lifeboat House and Accessories—Until Sept. 15, by Treas. Dept., Wash., D. C., constructing for Coast Guard at Sta. 241 here. J. A. Wetmore, superv. archt.

Minn., St. Paul—Electric Freight Lift, etc. —Until Sept. 14, by Treas. Dept., Wash., D. C., installing complete electric freight lift, hoistway, etc., in U. S. Post Office, Courthouse and Customhouse, here J. A. Wetmore, superv. archt.

Oregon—Road Work—Until Aug. 30, by Bureau Pub. Rds., 204 Post Office Bldg., Portland, crushing, hauling and laying rock surfacing on 6 mi. road from Prospect to Union Creek, Jackson Co., involving 12,000 cu.yd. crushed rock surfacing; grading 3 mi. road from Tiller to Drew, Douglas Co., involving 45,000 cu.yd. general excav., 14 acres clearing, 675 ft. culverts and timber trestle. C. H. Purcell, Post Office Bldg., Portland, dist. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Boston—Removing and Installing —Treas. Dept., Wash., D. C., received bids removing old conduit and installing new main, here, from M. Serretto, $2,973; T. F. Jackson, 99 John St., New York City, $6,389.

★**Mass., Fall River**—Remodeling Post Office—Treas. Dept., Wash., D. C., let contract remodeling, here, to R. M. Kearns, 692 Washington St., New York City, $13,244. Noted Aug. 5.

D. C., Wash.—Dispensary—Spec. 4226—Bureau Yards & Docks, Navy Dept., received lowest 3 bids Aug. 18, building, at Navy Yard, here, (1) work complete, from W. F. Martens, 244 Cutler Bldg., Rochester, N. Y., (1) $104,402 (180 days), (2) $81,-180, (3) add $1,800, (4) deduct $975, (5) deduct $1,175; Boyle Robertson Constr. Co., Evans Bldg., (1) $135,461, (2) $103,988, (3) add $1,400, (4) deduct $200, (5) deduct $900; G. E. Wyne, Home Life Bldg., (1) $135,950 (180 days), (2) $103,950, (3) add $1,400, (4) deduct $200, (5) deduct $900. Noted July 29.

Va., Front Royal—Post Office—Treas. Dept., Wash., D. C., received bids Aug. 13, building, here, from King Lumber Co., Charlottesville (1) $54,700, (2) $54,500; Charlottesville Lumber Co., Charlottesville, (1) $46,892, (2) $46,992. Noted July 1.

★**Va., Hampton Roads**—Electric Underground Distributing System—Spec. 4240—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in 3 storehouses on Block "Z," at Naval Operating Base, here, to J. R. Proctor, 74 Cortlandt St., New York City, $34,880 (150 days). Noted Aug. 19.

★**O., Cincinnati** — Metal Work — U. S. Engr. Office, 415 Customhouse, let contract for metal work for Dam 34, Ohio River, to General Iron Wks. Co., Front and Harriet Sts., $12,378.

O., Cleveland — Boiler — Treas. Dept., Wash., D. C., received bids remodeling old boiler and installing new one in Marine Hospital, here, from J. B. Casey Co., Chicago, $8,360; Becker Seidel Co., Cleveland, $10,200; Whittlesey Eng. Co., Cleveland, $11,457. Noted Aug. 5.

Minnesota—Road Work—Bureau Pub. Rds., Post Office Bldg., Minneapolis, received bids Aug. 12, building 15 mi. Nat. Forest Rd. Project in Minnesota Nat. Forest, Cass Co., from Latvalla, Lake Lidberg, Grand Rapids, $144,097; S. Groves & Sons Co., Russell Ave. N. and Superior Blvd., Minneapolis, $151,919; J. McKusick, Hibbing, $156,449. Noted Aug. 5 under "Streets and Roads."

N. M., Ft. Stanton—Boiler—Treas. Dept., Wash., D. C., received only bid Aug. 16, installing in power plant, here, from J. R. Proctor, Inc., 74 Cortlandt St., New York City, (1) $39,990, (2) $36,990 (3) $39,490, (4) $36,490 (300 days). Noted July 29.

★**Wash., Seattle**—Dredging—U. S. Engr. Office, Burke Bldg., let contract dredging harbor at Port Gamble, to Puget Sound Bridge & Dredge Co., Central Bldg., $30,875. Noted July 15.

★**Cal., San Francisco**—Deep Well—Treas. Dept., Wash., D. C., let contract building at Quarantine Sta., here, to J. B. Rogers, 110 Suttle St., $2,860

Cuba, Guantanamo — Pier — Spec. 4165—Bureau Yards & Docks, Navy Dept., Wash., D. C., received only bid Aug. 18 building at Naval Sta. here (1) work complete, from M. F. Kelley, 51 East 42d St., New York City, (1) $179,551 (240 days), (4) add $6,000 for each additional 10 ft. bay, (7) add $1.90 per ft. for each additional foot, (8) add $3 per ft. for each additional foot, deduct $2 for each foot less than specified lengths. Noted July 22.

Miscellaneous

PROPOSED WORK

Swimming Pool—Noroton, Conn.—J. A. Harris, Collenders Point, soon lets contract building 50 x 110 ft., concrete and marble swimming pool, here. About $50,000.

Dam—Windsor Locks, Conn.—Connecticut River Co., 201 Devonshire St., Boston, plans to build 30 x 2,000 ft. rein.-con. dam on Connecticut River. Private plans.

Wood Paving Blocks—Brooklyn, N. Y.—E. Riegelmann, boro. pres., received no bids Aug. 11, furnishing and delivering 40,000 wood paving blocks. Work will be readvertised.

Vehicular Tunnel—New York, N. Y.—New York State and New Jersey Tunnel Comn., Hall of Records, open bids about Sept. 21, building 9,000 ft., rein.-con. and c.i. vehicular tunnel from here to Jersey City. About $28,760,000. J. M. Holland, Hall of Records, engr.

Heating System, etc.—Jacksonville, Fla.—Florida Christian Home having plans prepared by J. H. Lynch & Son., archts. and engrs., Dolf Bldg., St. Louis, Mo., for installing new heating system and laundry machinery, also altering present buildings. About $50,000.

Lighting System—Litchfield, Minn.—City plans to rewire for light and power. About $40,000. F. O. Holm, clk.

Transmission Line — Ellendale, N. D. — Ellendale Electric Co. plans to build electric transmission line from here to Guelph and Ludden. About $25,000. G. E. Phillips, mgr.

Tunnels—Colorado—State election Nov. 2, to vote on $18,500,000 bonds, to build following tunnels, Moffat tunnel, 6.4 mi. long, at an elevation of 9,100 ft. at James Peak, on Denver & Salt Lake R.R., cost $6,750,000; Monarch tunnel, 6 mi. long, at elevation of 9,500 ft., near Garfield, on Denver & Rio Grande R.R., $6,336,000; San Juan tunnel near Cumbres Pass on Denver & Rio Grande R.R. All above to be of sufficient size for standard gauge railroad, automobiles and U. S. Army trucks. L. D. Blauvelt, Gas & Electric Bldg., Denver, ch. engr. Colorado Railroad Comn.

BIDS DESIRED

Hot Water System—Bath, N. Y.—Until Sept. 8 by R. P. Bush, pres. Bd. Trustees, New York State Soldiers' and Sailors' Home, installing domestic hot water system

Pier and Approach—Brooklyn, N. Y.—Until Sept. 2, by M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., North River, New York City, furnishing labor and material building pier and approach, north of Barren Island, Jamaica Bay. Alternate bids will be received on wooden pier with wooden approach and rein.-con. pier with wooden approach.

Miscellaneous (Continued)

Coal and Ash Handling Equipment—Buffalo, N. Y.—See "Industrial Works."

Crane—New York, N. Y.—E. F. Callan, 17 Battery Pl., receiving bids for 1 locomotive crane, caterpillar type.

Motor Driven Trucks, etc.—New York, N. Y.—Until Sept. 3, by Bd. Purchase, Municipal Bldg., furnishing and delivering 100 gasoline motor driven trucks with parts as per schedule, and 150 tractors for Street Cleaning Dept.

Pier—New York, N. Y.—Until Sept. 2, by M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., North River, furnishing labor and material rebuilding pier at foot of East 29th St., East River.

Road Materials—New York, N. Y.—Until Aug. 31, by H. H. Curran, pres. Manhattan Boro., furnishing and delivering 2,000 cu.yd. binder stone and 100,000 wood paving blocks.

Underground Cables—New York, N. Y.—Until Sept. 3, by R. E. Enright, police comr., at office of Bookkeepers Office, Headquarters of Police Dept., 240 Centre St., installing new underground cables for installing telephone cable on Manhattan Bridge structure between Manhattan and Brooklyn anchorages to said bridges.

Yard—New York, N. Y.—Until Aug. 31, by J. H. Delaney, comr. Transit Constr., 49 Lafayette St., building yard on Jerome Ave., Route 16, a part of 7th Ave.-Lexington Ave. Rapid Transit R.R., and widening elevated railroad on westerly side of Jerome Ave. between Bedford Park Blvd. Sta. and railroad yard.

Heating System, etc.—Syracuse, N. Y.—Until Sept. 1, by pres. of Bd. Trustees, New York State College of Forestry, repairing heating system in Roosevelt Wild Life Laboratories here.

Riprap—Cape May, N. J.—Until Aug. 31, by Bd. Comrs., furnishing 2,400 ton riprap, f.o.b. at quarry. H. W. Bell, city engr.; advertised in this issue.

Tank—Hightstown, N. J.—Until Aug. 31, by Mayor and Boro. Council, furnishing and erecting 150,000 gal. steel tank on steel tower 90 ft. high to balcony. W. S. Coulter, 114 Liberty St., New York City, engr.; advertised in this issue.

Foundation—Phila., Pa.—Until Sept. 14, by F. H. Cave, dir. Dept. Pub. Wks., City Hall., and Bd. Trustees, building foundation for Free Library on Vine, Wood, 19th and 20th Sts. H. L. Trumbauer, 1406 Land Title Bldg., Phila., archt.; advertised in this issue.

Swimming Pool, etc.—Pittsburgh, Pa.—Until Aug. 31, by City Comptroller, building 48 x 98 ft. concrete swimming pool, also 2 story, 30 x 50 ft. stucco bath house. About $30,000.

Dam, Pump House and Road Diversions—Norfolk, Va.—Until Sept. 21, at office of City Manager, building dam, pump house and road diversions. W. H. Taylor, 3d, dir. pub. wks.; advertised in this issue.

Lighting Equipment—Detroit, Mich.—Until Sept. 15, by G. J. Finn, Comr. Purchases & Supplies, furnishing following materials, freight prepaid to Detroit: 3,000 ft. No. 6 B. & S. "G" solid copper wire, 8-32 in. varnished cambric insulation, covered with asbestos braid; 30,000 ft. No. 6 B. & S. copper wire, stranded 4-32 in. 30% para rubber insulation, double braid; 3,000 ft. No. 6 B. & S. "G" stranded copper wire 8-32 in. 30% para rubber insulation, double braid; 4,000 ft. No. 10 B. & S. "G" stranded copper wire, 2-32 in. 30% para rubber insulation, double braid; hard drawn copper wire, triple braid weatherproof insulation as follows, 5,000 lb. No. 2, 2,000 lb. No. 4 and 30,000 lb. No. 6 B. & S. "G" solid conductor, 1,500 lb. No. 4 B. & S. "G" stranded conductor, 500 lb. No. 10 B. & S. solid conductor; soft drawn copper wire, double braid weatherproof insulation, as follows, 3,000 lb. No. 6 B. & S. "G" stranded conductor, 5,000 lb. No. 12 B. & S. "G" solid conductor.

Paving and Bridge Materials—Cleburne, Tex.—Until Aug. 31, by Comrs. Johnson Co., furnishing 10,000 bbl. portland cement, 600,000 lb. reinforcing steel, 10,000 cu.yd. bitrun concrete gravel, or 10,000 cu.yd. crushed stone or screened and washed gravel, 5,000 cu.yd. concrete sand, f.o.b. cars at Johnson Co. C. White, co. aud.

Street Lighting System—Wichita Falls, Tex.—Until Sept. 1, by H. M. Harrison, secy. Chamber of Commerce, installing complete street lighting system, to include laying 30,245 ft. cable, building 324 concrete bases and erecting 324 lamp standards in Ohio, Indiana, Scott, Lamar, Travis, 7th, 8th, 9th and 10th Sts.

Shore Protection—Three Fathom Harbor, N. S.—Until Aug. 31, by Dept. Pub. Wks., Western Blk., Ottawa, Ont., reconstructing and repairing portion of shore protection, 220 ft. of cribwork, stone filled, 12 ft high by 12 ft. wide, plank decked and close sheathed with 6 x 6 in. sheathing. About $40,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

Breakwater—West Chezzetcook, N. S.—Until Sept. 8, by Dept. Pub. Wks., Western Blk., Ottawa, repairing 215 ft. breakwater here, also removing and rebuilding 3,100 cu.ft. of damaged portion. About $28,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

Wharf—Thessalon, Ont.—Until Sept. 7, by Dept. Pub. Wks., Western Blk., rebuilding superstructure, 142 ft. and 101 ft. by 24½ ft., concrete blocks on cribwork, stone fill. About $30,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

HIGHWAY—VERMONT

Bids were received by State Highway Comn., Montpelier, (lowest 3) for constructing gravel highway in towns of Mt. Tabor, Dorset and Danby, Project No. 12, Sect. "A," from G. L. Gregoire & Co., Barre; (B) Walter E. Dix Corp., Springfield; (C) Alco Contg. Co., Boston; Sect. "B," from (A) W. E. Dix Corp.; (B) Pascal C. Ricci, Rutland; (C) Alco Contg. Co. The unit bids were as follows:

SECTION A

	A	B	C
26,879 cu.yd. earth excavation	$1 50	$1 40	$1.95
224 cu.yd. rock excavation	6 00	4 00	5.00
3,898 cu.yd. borrow	1 60	1 90	2.00
1,914 cu.yd. sub-base of napped field, or quarry stone	3 50	3 40	3.75
Sub-base of gravel (per cu.yd.)	2 75	3 50	2.50
16,154 cu.yd. gravel surface course	2 70	4 00	3.55
306 cu.yd. concrete, Class A (1-2-4)	35 00	25 00	25.00
385 cu.yd. concrete, Class C (1-3-6)	30 00	20 00	24 00
21,669 lb. reinforcing steel	12	10	.10
9,884 lin.ft. wooden guard rail	70	60	.65
164 lin.ft. 12-in. corrugated pipe culverts	2 50	1 90	2.75
252 lin.ft. 14-in. corrugated pipe culverts	3 00	2 00	3.00
36 lin.ft. 16-in. corrugated pipe culverts	3 00	2 50	4.00
162 lin.ft. 18-in. corrugated pipe culverts	3 50	2 80	4.75
240 lin.ft. relaying pipe culverts	1 00	25	1.50
100 lin.ft. standard underdrain	1 25	1 00	1.75
50 sq.yd. concrete gutter	3 00	2 00	1.50
100 sq.yd. cobble gutter	1 00	1 10	2.00
Cobble gutter grouted with cement mortar (per sq.yd.)	2 50	1 65	2.75
27 sq.yd. paving	2 50	1 50	2.75
3 leaching basins	50 00	25 00	65.00
2 drop inlet grates	10 00	15 00	10.00
10 cu.yd. rip-rap	3 00	2 00	5.00
Extended totals	$132,717	$142,398	$154,606

SECTION B

	A	B	C
20,675 cu.yd. earth excavation	$1 40	$1 50	$2.00
254 cu.yd. rock excavation	4 00	7 75	6.00
530 cu.yd. borrow	1 80	1 25	2.10
978 cu.yd. sub-base of napped field or quarry stone	3 40	3 00	4.00
Sub-base of gravel (per cu.yd.)	3 50	3 40	2.50
16,687 cu.yd. gravel surface course	4 00	4 00	4.20
179 cu.yd. concrete, Class (1-2-4)	23 00	20 00	28.00
323 cu.yd. concrete, Class C (1-3-6)	20 00	20 00	26.00
5,104 lb. reinforcing steel	10	10	.12
11,296 lin.ft. wooden guard rail	55	70	75
28 lin.ft. 12-in. corrugated pipe culverts	1 90	2 00	3.00
394 lin.ft. 14-in. corrugated pipe culverts	2 00	2 40	3.50
39 lin.ft. 16-in. corrugated pipe culverts	2 50	3 00	4.50
162 lin.ft. 18-in. corrugated pipe culverts	2 80	3 10	6.00
160 lin.ft. relaying pipe culverts	60	40	1.50
100 lin.ft. standard underdrain	1 10	1 00	2.00
50 sq.yd. concrete gutter	2 00	2 00	2.00
100 sq.yd. cobble gutter	1 40	1 00	2.00
Cobble gutter grouted with cement mortar (per sq.yd.)	1 65	2 00	2.50
1 Leaching basin	50 00	30 00	75.00
11 cu.yd. broken stone for blind drains	3 00	2 00	6.00
10 cu.yd. rip-rap	5 00	3 00	5.95
Extended totals	$120,242	$123,829	$143,998

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Road Materials—Boston, Mass.—City received bids Aug. 3 furnishing (a) 40,000 lin.ft. straight edgestone, (b) 3,600 ft. circle stone, (c) 200 corners, from H. E. Fletcher, 31 State St., (a) $1.89 per lin.ft., (b) $2.66, (c) $7.98; Lombard Granite Co., 31 State St., (a) $2.25 and $2.05 per lin.ft., (b) $2.85, (c) $7.40; Rockport Granite Co., (a) $2.15 per lin.ft., (c) 88. Noted Aug. 5.

Heating, Ventilating, Plumbing and Electric Work—West New York (Weehawken P. O.), **N. J.**—Bd. Educ. received bids for heating and ventilating work in P. S. No. 1, from E. Beck, West New York, $60,968; plumbing, from A. C. Kreiger, 402 Hackensack Plank Rd., Union, $30,919; electrical work, from W. Coleman, Jersey City, $13,633.

★**Third Rail—Phila., Pa.**—Dept. City Transit, 1211 Chestnut St., let contract furnishing and delivering 800 gross ton "third" rail for Frankford Elevated R.R., to Phila. Rapid Transit, 810 Dauphin St., $90,559.

★**Lake—Pittsburgh, Pa.**—City let contract improving Lake Elizabeth, West View Park, to A. V. Purnell, 507 Jarvella St., $32,218. Noted Aug. 5.

★**Gas Main — Birmingham, Ala.** — Birmingham Ry. Light & Power Co., 1st Ave., will lay 25,000 ft. 16 in. gas mains. About $300,000. Work will be done by day labor. Pipe contract let to U. S. Cast Iron Pipe & Fdry. Co.

Paving Material—St. Paul, Minn.—City received bids furnishing (a) 2,970 bbl. portland cement, (b) 2,227 cu.yd. crushed rock for concrete base, (c) 1,338 cu.yd. concrete sand, (d) 914 cu.yd. fine asphalt sand, (e) 452 cu.yd. coarse asphalt sand, (f) 273 ton limestone dust, (g) 328 ton trap rock, (h) 655 ton binder stone, (i) 7,000 sewer bricks, from St. Paul Builders' Material Co., 606 Ryan Bldg., (a) $4 per bbl., (i) $30 per M.; Stiefel Materials Co., 501 Concord St., (b) $2.90, (c) $1.80; United Materials Co., 118 Endicott Bldg., (c) $1.60, (e) $1.60; J. L. Shiely Co., 7th and St. Peter Sts., (b) $3, (c) $2, (d) $2.25, (e) $1.75; Minnesota Crushed Stone Co., 1500 Johnson St., N.E., Minneapolis, (f) $5.75, (h) $2.75; Trap Rock Co., Bway. and K St., N.E., Minneapolis, (g) $2.45; St. Paul Crushed Stone Co., Stewart and Victoria Aves., (h) $2.75. Noted Aug. 12.

★**Safety Deposit Boxes—Denver, Col.**—First Natl. Bank, 17th and Stout Sts., let contract building 11,000 safety deposit boxes, to Mosler Safe Co., Grand Blvd., Hamilton, O. About $175,000.

★**Pavilion—Pt. Loma, Cal.**—See "Buildings."

OFFICIAL PROPOSALS

Bids: Aug. 31.

Paving Work

Long Branch, N. J.

For Ocean Avenue pavement and concrete retaining wall to be constructed at Long Branch, N. J.

Notice is hereby given that sealed proposals will be received by the Board of Commissioners of the City of Long Branch, in the County of Monmouth and State of New Jersey, for the paving of Ocean Avenue in said city with Amiesite, Sheet Asphalt, Concrete, Bitulithic National and Topeka upon a concrete foundation, and the building of a concrete retaining wall and bulkhead along portions of said avenue, including those portions of driveways of intersecting streets or alleys that are included within the property line of said avenue above mentioned. Estimated amount of surface pavement required: first section, 24,000 sq.yd.; second section, 65,600 sq.yd.; third section, 43,700 sq.yd. fourth section, 10,000 lin.ft. of concrete retaining wall, and opened and read at the regular meeting of the Board at City Hall on Tuesday, the 31st day of August, 1920, at 10 o'clock a.m. (standard time).

Drawings and specifications and form of bid prepared by J. W. Seaman, City Engineer, are on file in the office of the City Clerk and may be obtained by prospective bidders during business hours upon a deposit of Ten Dollars ($10.00) which will be refunded upon the return of the plans and specifications in good condition at the time the bids are received.

Bids must be made on the standard proposal forms in the manner designated therein and required by the specifications, and must be enclosed in sealed envelopes bearing the name and address of bidder and section of the work bid upon on the outside, addressed to "Elmer F. Lawyer, City Clerk," and must be accompanied by a Surety Company certificate stating that said Surety Company will provide the bidder with the required bond, and a certified check for not less than ten per cent of the amount bid on each section of the work as stated in the proposal, drawn to the order of Frank L. Howland, City Treasurer, or cash in an equal amount, and be delivered at the place and on the hour above named.

The standard proposal forms and data may be obtained on application to the engineer at his office 192 Broadway, Long Branch, N. J.

CLARENCE J. HOUSEMAN,
Mayor.

ELMER F. LAWYER,
City Clerk.

Dated: Aug. 10, 1920.

Bids: Sept. 3.

Completion of Concrete Viaduct

Mount Vernon, N. Y.

Sealed bids for the completion of Broad Street Viaduct crossing N. Y. Central R.R. tracks and Bronx River between Bronxville and Mount Vernon, N. Y., will be received jointly by the Cities of Yonkers and Mount Vernon and Bronx Parkway Commission, West Pondfield Road, Bronxville, N. Y., until 11.30 a.m., September 3, 1920.

This viaduct was partially constructed under a former contract, and the principal items of work remaining to be done consist of one reinforced-concrete arch of 94 ft. span over the railroad tracks and one reinforced-concrete arch of 85 ft. span east of the railroad, together with spandrel and approach walls, and other miscellaneous work. All piers and abutments were constructed under the former contract.

Pamphlets containing information for bidders, form of proposal, contract, specifications and contract drawings may be obtained from the Bronx Parkway Commission at the above address by depositing $5.00 for each pamphlet.

ELMER L. KINCAID, Mayor
City of Mount Vernon.
WILLIAM J. WALLIN, Mayor,
City of Yonkers.
MADISON GRANT,
WILLIAM W. NILES,
FRANK H. BETHELL,
Commissioners, Bronx Parkway Commission.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Sept. 22.

Construction of Breakwater

SOUTH PARK COMMISSIONERS
Chicago, Ill.

Sealed proposals will be received by the South Park Commissioners, 57th Street and Cottage Grove Avenue, Chicago, Illinois, until 12:00 o'clock noon, September 22, 1920, for the construction of a wooden pile, stone-filled breakwater along the lake front extending from opposite Eleventh Place to a point near Twenty-fourth Street, a total distance of approximately 7,490 feet. The approximate quantities of material required for the work are as follows:

Round piles 40 to 50 ft. long, 11,385.

Timber (waling and sheet piling), 970,000 ft. B.M.

Quarried stone filling, from one cubic yard in size, down, 90,000 tons.

Bolts, rods and other steel work as required by the plans.

The work will be divided into three sections and bids will be considered upon each section separately or upon the work as a whole.

Plans and specifications may be obtained without cost to responsible bidders by application to the South Park Commissioners' office as above.

Each bid must be accompanied by cash or certified check amounting to 5% of the estimated total of the bid, and the bidder to whom the contract is awarded will be required to execute with the contract a surety company bond, in the sum of 25% of the estimated amount of the contract.

J. F. NEIL, Secretary.

Bids: Sept. 7.

Construction of Storm Sewer

Plainfield, N. J.

Sealed proposals will be received by the Common Council of the City of Plainfield, N. J., at the Council Chambers in said City, on Tuesday, Sept. 7, 1920, at 8:30 p.m., for constructing a Storm Sewer in Central Avenue in said City. The approximate amount of the principal items of the work is as follows:

1,900 lin.ft. sewer 20 to 36 inches in diameter.
640 lin.ft. inlet connections.
6 manholes.
28 inlets.

Plans, specifications and forms of proposal, contract and bond may be obtained from Alexander W. Vars, City Engineer, or John J. Carroll, City Clerk, Municipal Building, Plainfield, N. J.

The Common Council reserves the right to reject any or all bids.

JOHN J. CARROLL,
City Clerk.

Bids: Sept. 10.

Repairing of Road

STATE OF NEW JERSEY
STATE HIGHWAY COMMISSION
Trenton, N. J.

Notice is hereby given that sealed bids will be received by the State Highway Commission of New Jersey for the repair of the following:

State Highway Route No. 1, Highland Park to Hotel Pine, patching with 2-in. bituminous concrete surface, grade W, estimated 8,000 square yards.

Bids will be opened and read in public at the office of the State Highway Commission, Broad Street Bank Bldg., Trenton, N. J., on Friday, Sept. 10, 1920, at 10:30 p.m. (Eastern Standard time).

Specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department at Trenton, N. J., and may be inspected by prospective bidders. Specifications will be furnished on deposit of ten dollars ($10) upon application to the State Highway Department. Bids must be made on the standard proposal forms in the manner designated therein and as required by the specifications, same to be inclosed in sealed envelopes bearing the name and address of bidder and name and section of route on the outside, addressed to

START HIGHWAY COMMISSION,
Broad Street Bank Bldg.,
Trenton, New Jersey.

and must be accompanied by a certified check for not less than ten per cent (10%) of the amount of the bid, and be delivered at the above place on or before the hour named. Copies of the standard proposal form will be furnished on application.

Each bidder must accompany his bid with a certificate from a surety company duly authorized to do business in this State, stating that such surety company will provide said bidder with a bond in such sum as is required in, and in accordance with the provisions of said specifications, conditioned for the faithful performance of the provisions of the contract and specifications.

By order of the STATE HIGHWAY COMMISSION.

A. LEE GROVER,
Chief Clerk.

Bids: Sept. 21.

Dam, Pump House and Road Diversions

Norfolk, Va.

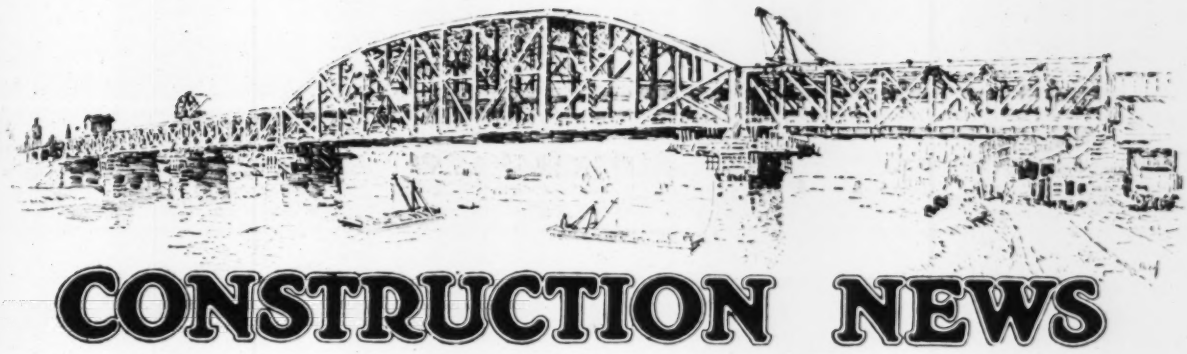
Sealed proposals will be received at the office of the city manager of the city of Norfolk, Va., until 12 o'clock noon, on the 21st day of Sept., 1920, for a dam, pump house and road diversions.

The work includes 11,000 cubic yards, more or less, of excavation below mean high tide; 150,000 cubic yards, more or less, of excavation for embankments for dam and road diversions; 3,500 cubic yards, more or less, of reinforced concrete; 13,000 linear feet, more or less, of eight-inch steel sheet piling; the construction of several small highway bridges; a pump house; an intake tower; a pile and timber wharf, and sundry piping and other appurtenances to the foregoing items.

Instruction to bidders, form of proposal, contract and form of bond, and plans and specifications may be inspected at the office of the Director of Public Works, Norfolk, Va., or at the office of the Consulting Engineer, Dabney H. Maury, 1445 Monadnock Block, Chicago, Ill., and a complete set of all of the above papers may be obtained either from the Director of Public Works or from the consulting engineer upon application accompanied by a check or postal order for twenty dollars, payable to B. Gray Tunstall, City Treasurer, which amount will be refunded to the party depositing it upon return of all of the foregoing papers in good order.

A certified check on some bank in the city of Norfolk, in the sum of $4,000.00, payable to B. Gray Tunstall, City Treasurer, must accompany each bid, subject to the conditions expressed in the form of proposal.

WALTER H. TAYLOR, III.,
Director of Public Works.



CONSTRUCTION NEWS

UPS AND DOWNS OF THE MARKET

FREIGHT RATES—The increase in freight rates, effective Aug. 26, has already been added to the prices of some of the construction materials. In certain cases, the old prices are maintained, but it is quite likely that by Oct. 1 most of the items will have been increased by at least the amount of the freight advance.

PIG IRON—There is considerable activity, and sales of as high as 1,000 tons to a single customer have been made. Increases run as high as $9 per ton over last month.

RAILWAY SUPPLIES—Light rails are at a premium, prices reaching as high as $76 per ton, according to report. Our quotations are the formal figures of the Steel Corporation, but no rails are available at these prices for several months to come. Railway ties have advanced in the St. Louis district, while Chicago reports that next month will probably see a decrease in the price of ties in that city. It is reported that as high as $3 for oak ties has been offered in New York; pine ties cost about $2 each in New York.

PIPES—We published the new Pittsburgh basing card for wrought pipe (steel and iron), showing an advance of about three points. Cast-iron pipe up in Chicago and San Francisco. Dallas prices of clay drain tile are now about the same as those in Chicago, St. Louis and New York. Sewer pipe advanced in St. Louis, Dallas, Minneapolis, Seattle and Detroit. In Baltimore, prices remain the same as last month, but the 3-in. and 5-in. sizes have disappeared from the market, stocks there beginning with 6-in.

ROAD OILS—A general increase will be noted in our list of road oils. These oils are very high in price and extremely difficult to obtain, inasmuch as most stocks are going for use as fuel oil.

WOOD BLOCKS—Last month there was an advance in New York, and this month we show another advance of 9c. for 3½-in. and 14c. for 4-in. Advances also in Minneapolis, Dallas, and Baltimore.

CONCRETING MATERIALS—There were very few changes in prices of sand, gravel and crushed stone. These materials are usually of local production and, therefore, would ordinarily not be affected by changes in freights. Cement prices are by no means stable, and in some cases only an approximation can be given. For example, at some points carload lots are not available—as in Jersey City, where we quote the retail price of $4.25 net, as against last month's large quantity price of $3.22. In New York the price is from 12 to 15c. above last month's quotation of $4.10. There were increases in New Orleans, Minneapolis, Dallas, Baltimore and Detroit. The movement of cement from Canada to the United States is of such volume as to hamper the construction of the Welland Ship Canal, according to dispatches. The price of cement in Seattle is still $3.03 without bags, but an important increase is expected shortly. Boston is experiencing an acute shortage of cement, lime and plaster.

REINFORCING MATERIALS—Certain of the companies have already added the increased freight, while other companies are not yet in a position to announce the new schedule of prices. The adjustment will shortly be made and the new schedule will be announced in the Oct. 7 issue of *Engineering News-Record*.

HOLLOW TILE—Prices are again being quoted for New York and Perth Amboy. There were increases also in Boston and Baltimore.

PREPARED ROOFINGS—There is a shortage of slate-finished material. Although we show an increased price for shingles these are practically unobtainable at this time.

STEEL SHEETS—The upper limit of the range of prices has been advanced in Pittsburgh, and warehouse prices in New York and San Francisco have been increased. Prices are still speculative.

LUMBER—San Francisco prices remain the same. Southern Pine up in Chicago. Increases in Boston, New Orleans, Baltimore and Montreal. Prices in Chicago are prohibitive owing to car shortage at production points.

LABOR—There have been few changes in rates. The situation is very unsatisfactory in New Orleans owing to numerous strikes. In Montreal carpenters and hod-carriers are scarce; jobs in the country districts pay higher wages than in the city. In Detroit the labor supply is becoming more nearly balanced with the demand in the building and general contracting field; the demand in the automobile industry has lessened.

Price advances are indicated by **heavy type**; declines by *italics*

PIG IRON—Quotations compiled by The Matthew Addy Co.:

	Current	One Year Ago
CINCINNATI		
No. 2 Southern	$45.60	$30.35
Northern Basic	**51.30**	27.55
Southern Ohio No. 2	**47.80**	28.55
NEW YORK, tidewater delivery		
2X Virginia (silicon 2.25 to 2.75)	54.30	32.40
Southern No. 2 (silicon 2.25 to 2.75)	**49.70**	35.20
BIRMINGHAM		
No. 2 Foundry	42.00@44.00	27.75
PHILADELPHIA		
Eastern Pa	**50.00***	30.65*
Virginia No. 2	**50.00***	32.10*
Basic	**48.00†**	30.90†
Grey Forge	**45.00***	29.90*
CHICAGO		
No. 2 Foundry Local	**46.40**	26.75
No. 2 Foundry Southern	**48.00**	28.00
PITTSBURGH, including freight charge from the Valley		
No. 2 Foundry Valley	**49.00**	28.15
Basic	**48.50**	27.15
Bessemer	**50.00**	29.35
MONTREAL		
Silicon 2.25 to 2.75%	43.25	.....

* F. o. b. furnace. † Delivered.

RAILWAY SUPPLIES

STEEL RAILS—The following quotations are per ton f. o. b. Pittsburgh and Chicago for carload or larger lots. For less than carload lots 5c. per 100 lb. is charged extra:

	Pittsburgh		Chicago	
	Current	One Year Ago	Current	One Year Ago
Standard bessemer rails	$55.00	$45.00	$45.00@$55.00	$45.00
Standard openhearth rails	57.00	47.00	47.00@57.00	47.00
Light rails, 8 to 10 lb.	50.00 @ 55.00	2.585*	*2.45 @ 3.50**	2.835*
Light rails, 12 to 14 lb.	**50.00** @ *55.00*	2.54*	*2.41 @ 3.34**	2.79*
Light rails, 25 to 45 lb.	**50.00** @ *55.00*	2.45*	*2.32 @ 3.25**	2.70*

* Per 100 lb.

RAILWAY TIES—For fair-sized orders, the following prices per tie hold:

		7 In. x 9 In. by 8 Ft. 6 In.	6 In. x 8 In. by 8½ Ft.
Chicago	Plain	$2.00	$2.25
Chicago	Creosoted	2.25	2.50
San Francisco	Douglas Fir—Green	1.35	.96
San Francisco	Douglas Fir—Creosoted	2.70	1.92

Prices per tie at mills in St. Louis district:

Untreated A Grade White Oak 6x8x8		Untreated A Grade Red Oak 6x8x8	
No. 1	**$0.80**	No. 1	**$0.60**
No. 2	**.90**	No. 2	**.70**
No. 3	**1.00**	No. 3	**.80**
No. 4	**1.25**		
7x9x8 white oak			1.05
7x9x8 red oak (No. 4)	$0.80	No. 5	.87

Note:—Prices delivered in St. Louis, white oak 6 x 8 x 8, best grade, $2; 7 x 9 x 9, $2.25.

TRACK SUPPLIES—The following prices are base per 100 lb. f.o.b. Pittsburgh for carload lots, together with the warehouse prices at the places named:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago	St. Louis	San Francisco
Standard spikes, 9/16-in. and larger	$4.@4.25	$3.35	$3.55@4.25	$5.34	$7.75
Track bolts	6.00@6.50	4.35	4.00@5.25	Premium	8.75
Standard section angle bars	3.00@4.00	3.00	2.75	Premium	5.30

PIPE

WROUGHT PIPE—The following discounts are to jobbers for carload lots on the Pittsburgh basing card:

BUTT WELD

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
¼ to 3	45 to 57½	41½ to 44	⅜	15½ to 25½	+1½ to 11½
			½	19½ to 29½	1½ to 11½
			¾ to 1½	24½ to 34½	8 to 18½

LAP WELD

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
2	47 to 50½	34½ to 38	2	20½ to 28½	6½ to 14½
2½ to 6	50 to 53½	37½ to 41	2½ to 6	22½ to 30½	9½ to 17½
7 to 12	47 to 50½	33½ to 37	7 to 12	19½ to 27½	6½ to 14½
13 and 14	37½ to 41				
15	35 to 38½				

BUTT WELD, EXTRA STRONG, PLAIN ENDS

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
¼ to 1½	52 to 55½	39½ to 43	¼ to 1½	24½ to 34½	9½ to 19½
2 to 3	53 to 56½	40½ to 44			

LAP WELD, EXTRA STRONG, PLAIN ENDS

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
2	45 to 48½	33½ to 37	2	21½ to 29½	8½ to 16½
2½ to 4	48 to 51½	36½ to 40	2½ to 4	23½ to 31½	11½ to 19½
4½ to 6	47 to 50½	35½ to 39	4½ to 6	22½ to 30½	10½ to 18½
7 to 8	43 to 46½	29½ to 33	7 to 8	14½ to 22½	2½ to 10½
9 to 12	38 to 41½	24½ to 28	9 to 12	9½ to 17½	5½ to +2½

STEEL—From warehouses at the places named the following discounts hold for steel pipe:

	Black New York	Black Chicago	Black St. Louis
¼ to 3 in. butt welded	40%	54@40%	37%
2½ to 6 in. lap welded	35%	50@40%	33½%

	Galvanized New York	Galvanized Chicago	Galvanized St. Louis
¼ to 3 in. butt welded	24%	40½@30%	22%
2½ to 6 in. lap welded	20%	37½%@27½	19%

Malleable fittings, Class B and C, from New York stock sell at +32% list prices. Cast iron, standard sizes, net.

CAST-IRON PIPE—The following are prices per net ton for carload lots:

	New York Current	New York One Month Ago	New York One Year Ago	Chicago	St. Louis	San Francisco
4 in.	$79.30	$79.30	$57.30	$82.10	$78.00	$105.55
6 in. and over	76.30	76.30	54.30	79.10	75.00	102.55

Gas pipe and 16-ft. lengths are $2 per ton extra.

CLAY DRAIN TILE—The following prices are per 1000 lin.ft.:

Size, In.	New York Current	New York One Year Ago	St. Louis	Chicago	San Francisco	Dallas
3	$42.50	$35.00	$60.00	$60.00	.....	$60.00
4	60.00	51.00	70.00	80.00	$45.00	62.00
5	85.00	65.00	.....	100.00	65.00	84.00
6	110.00	90.00	125.00	120.00	90.00	110.00
8	175.00	130.00	195.00	180.00	150.00	181.00

SEWER PIPE—The following prices are in cents per foot for carload lots:

Size, In.	New York Current Delivered	New York Year Ago Not Del.	St. Louis	Chicago	San Francisco	Dallas
3	$0.19	$0.09	.....	$0.15	$12.75	
4	.19	.09	.....	.15	17.00	$0.25
5	.29	.135		.225	21.25	
6	.29	.135	$0.21	.225	24.50	.35
8	.45	.21	.30	.35	38.25	.50
10	.67	.315	.42	.525	.51	.....
12	.86	.405	.54	.625	.68	.90
15	1.30	.54	.806	.90	1.10	.....
18	1.88	.75	1.054	1.25	1.425	.....
20	2.25	.90	1.426	1.50	1.90	.....
22	3.00	1.20		2.00	.....	.....
24	8.38	1.35	1.86	2.25	2.375	.....
27	....	2.145	3.00	3.50	2.975	.....
30	....	2.376	3.65	4.00	3.40	.....
33	....	3.15	4.60	4.75	.....	.....
36	....	3.5875	4.50	5.50	.....	.....
	3	9	8	12	24	36
Boston	$1.65	$0.2475	$0.4225	$0.7425	$2.475	$6.875
Minneapolis	.....		.47	.85	2.75	5.25
Denver		Quotations available next month				
Seattle	.....	.....	.40	.80	2.88	
Kansas City		No prices obtainable				
Los Angeles	.0975*	.1525*	.27	.48	.60*	.....
New Orleans		35 per cent off				
Cincinnati	53 per cent off					38%
Atlanta	.....	.....	.34	.55	2.00	.....
Montreal		.55 per cent. off				
Detroit	52 per cent. off				50 per cent. off	
Baltimore delivered	231	3465	.539	1.0395	3.465	....

* 4-in., 6-in., 30-in. respectively

ROAD AND PAVING MATERIALS

ROAD OILS—Following are prices per gallon in tank cars 8000 gal. min. f.o.b. place named:

	Current	One Month Ago
New York, 45–65% asphalt (at terminal)	$0.14*	$0.04
New York, liquid asphalt (" ")	.14*	.06
New York, binder (" ")	.13*	.06
New York, flux (" ")	.14*	.04
St. Louis, 40% asphalt	.12*	.04
Chicago, 40-50% asphalt	.10½	...
Chicago, 60-70% asphalt	.11½	...
Dallas, 40–50% asphalt	.08	.07
Dallas, 60–70% asphalt	.10	.08
Dallas, 75–90% asphalt	.12	.10
San Francisco, binder, per ton	.13	...

*Note—Quotations nominal in New York. Scarcity in road oils.

ASPHALTUM—Price per ton in packages (350-lb. bbls. or 425-lb. drums), and in bulk in carload lots:

	Package	Bulk
New York (Bayonne, N. J.)	$35.00	$30.00
Boston	42.42	
Chicago	30.90	23.40
San Francisco	19.00	13.00
Dallas	50.00	45.00
Seattle	27.00	
Denver	.....	45.00
Minneapolis	38.00	32.00
Kansas City	40.00	32.00
Atlanta	25.00	20.80
St. Louis	36.40	28.90
Baltimore	43.50	...
Los Angeles	21.15	...
Montreal	.....	37.00
Detroit	49.00	42.25
Maurer	35.00	32.00
	42.00	41.00

PAVING STONE—

New York	5-in. granite	No quotations	
Chicago	About 4x8x4 dressed	$3.40	sq.yd.
	About 4x8x4 common	3.05	sq.yd.
San Francisco	Basalt block 4x7x8	65.00	per M
Kansas City	Granite	3.65	sq.yd.
Boston	5-in. granite	110.00	per M
Atlanta	Granite	2.00	sq.yd.
Detroit	Granite, 26½ blocks per sq. yd.	2.85	sq.yd.
Baltimore	Granite	2.50	sq.yd.
Montreal	Granite	5.90	sq.yd.
New Orleans	Granite	3.90	sq.yd.
Cincinnati	Granite	3.25	sq.yd.

FLAGGING—

New York	Bronx	$0.24	sq.ft.
	Manhattan	.25	sq.ft.
	Queens, 5 ft.	.26	sq.ft.
	6x20-in. cross-walk	.05	lin.ft.
Chicago	18 in. wide	.70	lin.ft.

CURBING—Bluestone per lineal foot, in New York, costs 70c. for 5x16 in., 80c. for 5x18 in.

WOOD BLOCK PAVING—

	Size of Block	Treatment	Per Sq.Yd.
New York	3½	16	$4.07
	4	16	4.47
Boston	3	16	3.00
Chicago	4	16	3.75@4.00
Chicago	3½	16	3.25@3.50
St. Louis	3½	16	2.90
St. Louis	4	16	3.32
Seattle	4	16	Off market
Kansas City	4	16	3.00
Minneapolis	3½	16	3.50
Atlanta	3½	16	2.30
New Orleans	4	16	3.63
Dallas	4	18	4.00
Baltimore	3½	16	3.80
Montreal	4	16	4.60
Detroit	3½	16	3.40

CONSTRUCTION MATERIALS

SAND AND GRAVEL—Price for cargo or carload lots is as follows, per cu.yd.

	Gravel 1½ In. Current	Gravel 1½ In. One Yr. Ago	Gravel ¾ In. Current	Gravel ¾ In. One Yr. Ago	Sand Current	Sand One Yr. Ago
New York	$3.00	$2.00	$3.00	$2.00	$1.50	$1.25
Denver	1.40	1.60	1.80	1.60	1.00	1.25
Chicago	2.15	1.35	2.15	1.35	2.15	1.35
Kansas City	3.25	2.50	3.75	3.00	1.25†	1.00
St. Louis	1.50	1.78	1.55	1.82	1.55*	1.68
Seattle, per ton	1.25	1.25	1.25	1.25	1.25	1.25
Dallas	2.50	2.00	2.50	2.00	2.00	1.50
Minneapolis	2.00	1.25	1.35	1.35	1.25	.60
Cincinnati	....	....	1.50	....	1.45	1.35
San Francisco	1.50	1.15	1.50	1.15	1.50	1.00
Boston	3.50	1.60‡	3.00	1.65‡	2.75	
New Orleans	3.05	2.40	....	2.40	1.55	1.20
Los Angeles	1.25	1.02	1.25	1.02	1.15	.70
Atlanta, per ton	2.25	2.00	2.25	....	1.15	1.10
Detroit	2.50*	1.90	2.50*	1.90	2.50*	1.80
Baltimore	1.40‡	1.54	1.60‡	1.75	.70	.65
Montreal, per ton	1.45*	1.20	....	....	1.30‡	1.10

* Fine white sand, Pacific and Ottawa, per ton $6.
† Kaw River sand is $1.75 per yd. ‡ per ton.

CRUSHED STONE—Price for cargo or carload lots is as follows, per cu.yd.:

	1½ In. Current	1½ In. One Year Ago	¾ In. Current	¾ In. One Year Ago
New York	$1.90@2.00	$1.65@1.75†	$2.15	$1.75@1.85
Chicago	2.35	1.30	2.50	1.30
St. Louis	1.90	1.50	1.90	1.50
Dallas	3.50	2.70	3.50	2.70
San Francisco	1.50	1.50	1.50	1.50
Boston	3.00*(del)	3.00	3.00 (del)	3.00
Minneapolis	2.25†	1.15	2.50	1.25
Denver	3.75	....	3.75	1.60
Kansas City	2.35	1.90	2.35	2.00
Seattle (Del.)	3.50	1.50	3.50	1.50
Cincinnati	....	....	1.65	....
Atlanta	3.10*	2.25	....	2.35
Los Angeles	1.60*	1.20	1.70*	1.12
Detroit	2.00*	1.65	2.50*	1.65
Baltimore	1.80*	1.25	2.20*	1.50
Montreal	2.30*	1.90	2.55*	2.15

* Per ton. † Limestone; traprock, $1.60 and $1.80 per ton for 1½ and ¾-in.

CRUSHED SLAG—Price of crushed slag per net ton in carload lots:

	1½-In.	¾-In.	Roofing	Sand
Lebanon or Bethlehem, Pa.	$1.00	$1.00	$2.50	$0.90
Easton, Pa.	1.20	1.20	3.00	1.10
Buffalo, N. Y.	1.25	1.00	2.00	1.00
East Canaan, Conn.	1.25	1.35	3.50	1.10
Birmingham, Ala.	1.25	1.25	2.05	1.00
Toledo, Ohio	1.50	1.50	....	....

LIME—Warehouse prices:

	Hydrated per Ton Finished	Hydrated per Ton Common	Lump* per 200-Lb. Barrel Finished	Lump* per 200-Lb. Barrel Common
New York	$19.50	$18.50	$3.50*-at plant-	$3.30*
Kansas City	27.20	26.20	2.50	2.40
Chicago	....	...	....	1.65
St. Louis	25.00	21.00	....	2.50
Boston	27.50	25.25	3.70†	3.40†
Dallas	....	25.00	....	2.50†
Cincinnati	17.20	16.20	....	13.20‡
San Francisco	23.50	19.50	....	2.25
Minneapolis	29.50	23.00	2.00†	1.85
Denver	30.00	.....	.95 (bu.)	.95 (bu.)
Detroit	20.00	18.00	1.80†	1.60†
Seattle	30.00	.....	2.85†	....
Los Angeles	2.75†	2.20†	2.75†	2.00†
Baltimore	23.75	.....	....	12.83‡
Montreal	25.00	25.00	15.00‡	15.00‡
Atlanta	22.50	.....	.....	.....
New Orleans	16.00	.....	2.35	.....

* 300-lb. barrels. †Per 180-lb. barrel. ‡ Per ton.

NOTE—Refund of 10c. per barrel with 25c per ton off on hydrated.

NATURAL CEMENT—Price to dealers for 500 bbl. or over, f. o. b., exclusive of bags:

	Current	One Year Ago
Minneapolis (Rosendale)	$2.60	1.45
Kansas City (Ft. Scott)	1.60	1.40
New Orleans	3.36	2.52
Atlanta (Magnolia)	1.90	....
Cincinnati (Louisville)	2.85	1.50
Boston (Rosedale)	2.35	

PORTLAND CEMENT—Current prices are for barrels in carload lots, *without* bags, to contractors:

	Current Without Bags	One Month Ago Without Bags	One Year Ago Without Bags
New York (del.)	$4.22@$4.25	$4.10	*2.30
Jersey City (del.)	4.25	3.22	2.27
Boston	3.32	3.32	2.42
Chicago	2.15	2.15	2.00
Pittsburgh	2.20	2.20	2.05
Cleveland	2.42	2.42	2.32
Detroit	3.00	3.00	2.08
Indianapolis	2.42	2.42	2.27
Toledo	2.28	2.28	2.12
Milwaukee	2.20	2.20	2.11
Duluth	2.20	2.20	2.10
Peoria	2.32	2.32	2.12
Cedar Rapids	2.40	2.40	2.18
Davenport	2.36	2.36	2.14
St. Louis	2.85	2.85	2.20
San Francisco	2.88	2.88	2.43
New Orleans	3.52	3.24	2.36
Minneapolis	3.30	2.42	2.20
Denver	3.80	3.80	2.67
Kansas City	2.76	2.76	2.26
Seattle	3.03	3.03	2.53
Dallas	2.92	2.15	2.03
Atlanta	2.70	2.70	2.50
Cincinnati	2.85	2.85	2.90
Los Angeles	3.10	3.10	2.78
Baltimore (del)	4.56	3.28	.....
Montreal (including bags)	3.00	3.00	.....
Detroit	5.00	.....	.....

NOTE—Bag charge is generally 25c. each.

TRIANGLE MESH—Price per 100 sq.ft. in carload lots.

PLAIN 4-INCH by 4-INCH MESH

Style Number	Sectional Area Square Inches per Ft. Width	Pittsburgh	New York*	Chicago	St. Louis	Dallas	San Francisco
032	0.032	$0.92	$1.16	$0.98	$0.99	$1.13	$1.32
049	0.049	1.18	1.48	1.26	1.26	1.43	1.67
068	0.068	1.44	1.86	1.53	1.56	1.79	2.06
093	0.093	1.85	2.39	1.97	2.00	2.41	2.65
126	0.126	2.28	3.02	2.43	2.47	2.92	3.28
153	0.153	2.72	3.59	2.90	2.95	3.48	3.93
180	0.180	3.12	4.13	3.33	3.39	3.99	....
245	0.245	4.12	5.44	4.40	4.47	5.27	....
287	0.287	4.76	6.29	5.08	5.16	6.10	6.86
336	0.336	5.52	7.30	5.89	5.99	7.06	.....
395	0.395	6.40	8.45	6.83	6.94	8.19	.....
PAVING							
036P	0.036	$0.71	$0.92	$0.76	$1.77	$0.80	.....
053P	0.053	1.00	1.28	1.06	1.08	1.12	....
072P	0.072	1.26	1.66	1.34	1.37	1.46	.....
097P	0.097	1.62	2.12	1.73	1.76	1.88	.....
049R	0.049	1.00	1.28	1.06	1.08	1.12	.....
067R	0.067	1.26	1.65	1.34	1.37	1.46	.....
089R	0.089	1.62	3.11	1.73	1.76	1.88	.....

Made in 16-, 20-, 24-, 28-, 32-, 36-, 40-, 44-, 48-, 52- and 59-in. width in rolls 150-, 200- and 300-ft. lengths. Galvanized is about 10% higher.

*Note—Practically no triangle mesh in New York market

EXPANDED METAL LATH—Prices in carload lots per 100 yd. for painted are as follows:

Gage	Weight	New York‡ Current Carloads	New York‡ Less Carloads	Chicago	St. Louis	San Francisco	Dallas
27	233	$32.10	$32.20*	$33.60†	$35.00	$36.00	$32.75
26	250	33.45	33.65*	35.20†	36.00	....	34.50
25	300	34.90	35.00*	36.90†	.....	39.00	36.75
24	340	36.50	36.65*	40.00†	39.00	44.00	39.25
22	450	39.60	39.80*	45.10†	.....	.....	43.30

* Delivered on job.

†Galvanized is $8 per 100 yd., additional.

*Note—Practically no metal lath in New York market.

BARS, CONCRETE REINFORCING—Following quotations are per 100 lb.

ROLLED FROM BILLETS

In.	Mill Pittsburgh	New York Current	Chicago	Dallas	St. Louis	San Francisco
¾ and larger	$2.35@$3.75	$3.63@3.00	$3.37@$3.90	$3.87	$4.75	$5.30
⅞	2.40@3.75	3.68@5.00	3.42@4.00	3.92	4.80	5.35
1	2.45@3.75	3.73@5.00	3.47@4.05	3.97	4.95	5.40
1¼	2.60@3.75	3.88@5.00	3.62@4.20	4.12	5.00	5.55
1½	2.85@3.75	4.13@5.00	4.07@4.60	4.57	5.05	5.80

Warehouse, Uncut

Twisted bars cut to length take extra of 29½c. per 100 lb.

ROLLED FROM RAILS

	Chicago	St. Louis	Dallas		Chicago	St. Louis	Dallas
¾ in. and larger	$4.00	$4.00	$4.25	¾	$4.25	$4.25	.....
⅞	4.05	4.05	4.30	⅞			
1	4.10	4.10		1			

BRICK—To contractors price per 1000 in cargo or carload lots is as follows:

	Common Current	Common One Month Ago	Common One Year Ago	Paving Block 3-inch	Paving Block 4-inch
New York (del)	$30.75	$25.00	$15.00	*48.50*	$52.50*
New Orleans	25.00	24.50	18.00		...
Chicago	16.00	15.00	12.00	39.51	
St. Louis, salmon	16.00†	16.00	12.00	.....	37.00
Denver	17.00	17.00	14.00	.....	...
Dallas	22.00	24.00	18.57	.....	.
San Francisco	18.00	18.00	12.50	.....	44.38
Los Angeles	13.50	13.50	12.50		
Boston	30.00	32.00	18.00	57.00	87.50
Minneapolis	24@25	21.00	13.00	.....	
Kansas City	22.00	22.00	15.00		...
Seattle	15.00	15.00	15.00	48.00	53.50
Cincinnati	24.00	24.00	17.00	.	.....
Montreal (del.)	16.00	16.00	15.00	.	.....
Detroit	23.00	23.00	20.00	40.00	48.00
Baltimore (del.)	20.00–25.00	22.50	18.00	40.00	44.00

*For paving blocks 3½x8½x3 and 3½x8½x4 respectively. †Hard brick $20.50 in St. Louis.

HOLLOW TILE—Price per block in carload lots for hollow building tile:

	New York Current on Trucks	New York One Year Ago	Chicago	St. Louis	San Francisco	Factory Perth Amboy N. J.
4x12x12	$0.2444*	$0.11475	$0.1516	None	$0.1425	.....
6x12x12	.3259*	.153	.2.74	"	.1800	.....
8x12x12	.4345*	.204	.2728	"	.2525	.4358
10x12x12	.....	.....	.3411	"	.....	.5447
12x12x12	.....	.....	.4093	"	.....	.6537

*Partition title. Less 5% for cash, 15 days.

	4x12x12	8x12x12	12x12x12
Boston	$0.195	$0.372	$0.496
Minneapolis	.1152	.2016	.31-8
Cincinnati	.125	.2186	.3286
Kansas City	No prices obtainable		
Denver	Quotations withdrawn		
Seattle	.09	.175	.30
Atlanta	.115	.19	.28
Los Angeles	.10	.175	....
New Orleans	.23	.28	.30
Detroit	20 per cent. off list		
Montreal	.22	.30	.36
Baltimore	.2775	.49	.6275

STRUCTURAL MATERIAL—Following are base prices f.o.b. mill, Pittsburgh, together with quotations per 100 lb. from warehouses at places named:

	Mill Pittsburgh	New York Current	New York 1 Yr. Ago	St. Louis	Chicago	San Francisco
Beams, 3 to 15 in.	$2.45@$3.10	**$4.58**	$3.47	$4.04	$3.97	**$6.00**
Channels, 3 to 15 in.	2.45@ 3.10	**4.58**	3.47	4.04	3.97	**6.00**
Angles, 3 to 6 in., ¼ in. thick	2.45@ 3.10	**4.58**	3.47	4.04	3.97	**6.00**
Tees, 3 in. and larger	2.45@ 3.75	**4.63**	3.52	4.09	4.02	**6.00**
Plates	2.65@ 4.00	**4.78**	3.67	4.24	4.17	**6.60**

RIVETS—The following quotations are per 100 lb.:

	Warehouse: New York Mill Pittsburgh	New York Current	New York One Yr. Ago	Chicago	St. Louis	San Francisco	Dallas
STRUCTURAL							
¾ in. and larger	$4.50	$6.00	$4.72	$5.62	$5.69	**$7.05**	$7.50
CONE HEAD BOILER							
¾ in. and larger	4.60	7.10	4.82	5.72	5.79	**7.15**	7.50
⅝ and 11/16	4.75	7.25	4.97	5.87	5.94	**7.40**	7.50
½ and 9/16	5.00	7.50	5.32	6.22	6.19	**7.65**	7.75

Lengths shorter than 1 in. take an extra of 50c. Lengths between 1 in. and 2 in. take an extra of 25c.

NAILS—The following quotations are per keg from warehouse:

	Mill Pittsburgh	New York	Chicago	San Francisco	Dallas	Montreal
Wire	$4.25	$8.50	**$4.45**	**$6.45**	$6.90	$4.95
Cut	..	10.00	**8.00@10.00**	8.50	6.40	5.00

PREPARED ROOFINGS—Standard grade rubbered surface, complete with nails and cement, costs per square as follows at maufacturing points:

	New York 1-Ply c.l.	New York 2-Ply l.c.l.	New York 3-Ply c.l.	Philadelphia 1-Ply c.l.	Philadelphia 2-Ply l.c.l.	Philadelphia 3-Ply c.l.
No. 1 grade	$2.50	$3.00	$3.55	$2.40	$2.90	$3.45
No. 2 grade	2.25	2.70	3.20	2.15	2.60	3.10

Slate-surfaced roofing (red and green) in rolls of 108 sq.ft. costs $4.25 per roll in carload lots and $4.50 for smaller quantities.

Shingles, red and green slate finish, cost **$8.75** per square in carloads; **$9.00** in smaller quantities, in Philadelphia.

ROOFING MATERIALS—Prices per ton f.o.b. New York and Chicago:

Tar felt (14 lb. per square of 100 sq.ft.) per roll	$3.50
Tar pitch (in 400-lb. bbl.) per 100 lb.	2.00
Asphalt pitch (in barrels) per ton	54.50
Asphalt felt (light) per ton	123.00
Asphalt felt (heavy) per ton	127.00

SHEETS—Quotations are in cents per pound in various cities from warehouse also the base quotations from mill:

Blue Annealed	Large Mill Lots Pittsburgh	St. Louis	Chicago	San Francisco	New York Current	New York One Yr. Ago
No. 10	**$3.55@$7.50**	$7.09	$7.02	**$8.65**	**$7.12@$8.00**	$4.57
No. 12	**3.60@ 7.55**	7.09	7.07	**8.70**	**7.17@** 8.05	4.62
No. 14	**3.65@ 7.60**	7.09	7.12	**8.75**	**7.22@** 8.10	4.67
No. 16	**3.75@ 7.70**	7.09	7.17	**8.85**	**7.32@** 8.20	4.77
Black						
*Nos. 18 and 20	4.15@ **8.30**	8.10	7.80	**10.60**	**8.30@ 9.80**	5.30
*Nos. 22 and 24	4.20@ **8.35**	8.10	7.85	**10.65**	**8.35@** 9.85	5.35
*No. 26	4.25@ **8.40**	8.10	7.90	**10.70**	**8.40@ 9.90**	5.40
*No. 28	4.35@ **8.50**	8.10	8.00	**10.80**	**8.50@10.00**	5.50
Galvanized						
No. 10	4.70@ **8.50**	9.60	8.50		**8.80@11.50**	6.20
No. 12	4.80@ **8.60**	9.60	8.60	**11.35**	**8.90@11.50**	6.25
No. 14	4.80@ **8.60**	9.60	8.60	**11.35**	**8.90@11.50**	6.30
Nos. 18 and 20	5.10@ **8.90**	9.60	8.90	**11.65**	**9.15@11.90**	6.60
Nos. 22 and 24	5.25@ **9.05**	9.60	9.05	**11.80**	**9.30@12.05**	6.75
*No. 26	5.40@ **9.20**	9.60	9.20	**11.95**	**9.45@12.20**	6.90
*No. 28	5.70@ **9.50**	9.60	9.50	**12.25**	**9.75@12.50**	7.20

*For painted corrugated sheets add 30c. per 1000 lb. for 5 to 28 gage; 25c. for 19 to 24 gages; for galvanized corrugated sheets add 15c., all gages.

LINSEED OIL—These prices are per gallon:

	New York Current	New York One Year Ago	Chicago Current	Chicago One Year Ago
Raw in barrel (5 bbl.)	*$1.48*	$1.86	*$1.67*	$2.05
5-gal. cans	*1.51**	1.96	*1.92*	2.25

*To this price must be added the cost of the cans (returnable), $2.25 for case of six.

WHITE AND RED LEAD—Base price per pound:

	Red Current Dry	Red Current In Oil	Red 1 Year Ago Dry	Red 1 Year Ago In Oil	White Current Dry and In Oil	White 1 Yr. Ago Dry and In Oil
100-lb. keg	15.50	17.00	13.00	14.50	15.50	13.00
25 and 50-lb. kegs	15.75	17.25	13.25	14.75	15.75	13.25
12½-lb. keg	16.00	17.50	13.50	15.00	16.00	13.50
5-lb. cans	18.50	20.00	15.00	16.50	18.50	15.00
1-lb. cans	20.50	22.00	16.00	17.50	20.50	16.0

500 lb. lots less 10% discount; 2000 lb. lots less 10-2½% discount.

LUMBER

San Francisco—Prices of rough Douglas fir No. 1 common, in more than carload lots:

Lumber Prices in Yards at San Francisco

	6-8-12 and 14 Ft.	10-16-18 and 20 Ft.	22 and 24 Ft.	25 to 32 Ft.
3x3 and 4	$36.50	$37.00	$38.00	$40.00
3x6 and 8	37.50	38.00	39.00	41.00
4x4 6 and 8	38.00	39.00	40.00	42.00
3x10 and 12	38.00	39.00	40.00	42.00
3x14	38.50	39.50	40.50	42.50
4x10 and 12	38.00	39.00	40.00	42.00
4x14	39.00	40.00	41.00	43.00

	24 Ft. and Under	25 to 32 Ft.	33 to 40 Ft.
6x10	$37.50	$39.50	$40.50
x14	39.00	41.00	41.50
8x10	37.50	39.50	40.50
8x14	39.00	41.00	41.50

New York, Chicago and St. Louis

	Southern Pine New York* 20 Ft. and Under	Southern Pine New York* 22-24 Ft.	Southern Pine Chicago 20 Ft. and Under	Southern Pine Chicago 22-24 Ft.	Yellow Pine St. Louis 20 Ft. and Under	Yellow Pine St. Louis 22-24 Ft.
3x 4 to 8x 8	$53.00	$54.00	**$68.00**	**$69.00**	$50.00	$51.00
3x10 to 10x10	57.00	58.00	**70.00**	**71.00**	55.00	56.00
3x12 to 12x12	65.00	66.00	**72.00**	**73.00**	57.50	58.50
3x14 to 14x14	70.00	71.00	**75.00**	**76.00**	65.00	66.00
3x16 to 16x16	75.00	76.00	**80.00**	**81.00**	67.50	68.50
3x18 to 18x18	85.00	86.00	**85.00**	**86.00**	72.50	73.50
4x20 to 20x20	90.00	91.00	**90.00**	**91.00**	.....	.....

* Prices from Lumbermen's Bureau. New prices on Sept. 15.

Over 24 ft.—Add $1 for each additional 2 ft. in length up to 40 ft. for sizes 12 x 12 and under; for sizes over 12 x 12 add $2. For merchantable add $2 to sizes 10 x 10 and under. For prime add $2 to the price of merchantable for all sizes.

Other Cities

	8 x 8-In. x 20-Ft. and Under P.	8 x 8-In. x 20-Ft. and Under Fir	8 x 8-In. x 20-Ft. and Under Hemlock	8 x 8-In. x 20-Ft. and Under Spruce	12 x 12-In 20 Ft. and Under P.	12 x 12-In 20 Ft. and Under Fir
Boston	**$73.00**	**$70.00**	.....	**$65.00**	**$85.00**	**$75.00**
Kansas City	51.00	51.25	$51.25	51.25	60.00	51.25
Seattle	.....	34.00	.....	.....	.....	35.00
New Orleans	**47.00**	.....	.....	.....	**55.00**	.....
Atlanta	62.50	64.50	66.00	76.00	79.50	82.00
Baltimore	**80.00**	.....	.....	.....	**92.50**	.....
Cincinnati	45.00	50.00	50.00	.....	55.00	55.00
Montreal	**87.00**	**87.00**	**70.00**	**85.00**	**79.00**	**110.00**
Los Angeles	.....	57.00	.....	.....	.....	59.00
Detroit	67.00	.....	.....	.....	79.00	79.00
Denver	.....	43.75	.....	.....	.....	44.75
Minneapolis		47.50	53.75			46.50

	1-In. Rough, 10 In. x 16 Ft. and Under P.	1-In. Rough, 10 In. x 16 Ft. and Under Fir	1-In. Rough, 10 In. x 16 Ft. and Under Hemlock	2-In. T. and Gr. 10 In. x 16 Ft. P.	2-In. T. and Gr. 10 In. x 16 Ft. Fir
Boston	$110.00	.....	$52.00	**$105.00**	$85.00
Kansas City	102.00	106.50	106.50	113.00	112.75
Seattle	.....	37.50	.....	.....	38.50
New Orleans	43.00	.....	.....	**46.60**	.....
Atlanta	85.00	90.00	.....	77.50	87.50
Baltimore (box)	57.50@65	.....	.....	57.50@62.50	.....
Cincinnati	50.00	55.00	50.00	45.00	50.00
Montreal	**80.00**	**80.00**	**70.00**	**85.00**	**85.00**
Los Angeles	.....	58.00		.....	.....
Detroit	50.00	.....	49.00	44.00	
Denver	.....	42.75	.....	.....	40.25
Minneapolis		42.00	50.25	.....	42.50

* Montreal—Up to 32 ft.; over which, $3.00 per M. increase up to 30 ft.

† Base price, 2 x 3's and 2 x 4's, 8 to 14 ft., is $54.00

Detroit—4 x 4 x 12, fir D, $50; rough fir, $53; 2 x 6 x 6, hemlock D sides, $50 2 x 12 x 18, rough fir, $52.50; 2 x 12 x 12, rough fir, $52; 2 x 4 x 16 fir D, $50

FREIGHT RATES

On finished steel products in the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, flat sheets (except planished), chains, etc., the following freight rates are effective in cents per 100 lb., in carloads of 36,000 lb.:

Boston	$0.41½	New Orleans	$0.51½
Buffalo	.29½	New York	.38
Chicago	.38	Pacific Coast (all rail)	1.66½†
Cincinnati	.33	Philadelphia	35
Cleveland	.24	St. Louis	.47½
Denver	1.35*	St. Paul	.69½
Kansas City	.81½	Detroit	.33
		Baltimore	.33½

Note—Add 3% transportation tax. * Minimum carload, 40,000 lb.
† Minimum carload, 50,000 lb., structural steel only

CONTRACTORS' SUPPLIES

STEEL SHEET PILING—The following price is base per 100 lb. f. o. b. Pittsburgh, with a comparison of a month and a year ago:

Current	One Month Ago	One Year Ago
$4.00@$5.00	$2.55@3.65	$2.25

WIRE ROPE—Discounts from list price on regular grades of bright and galvanized are as follows:

	New York and St. Louis
Hercules red strand, all constructions	20%
Patent flattened strand, special and cast steel	20%
Patent flattened strand, iron rope	5%
Plow steel round strand rope	30%
Special steel round strand rope	30%
Cast steel round strand rope	22½%
Iron strand and iron tiller	5%
Galvanized iron rigging and guy rope	+12%

San Francisco: Galvanized Iron Rigging and Guy Ropes, +17½%; Bright Plow, 25% off.

Chicago, + 10 on galvanized, 22½ — 2½ off on bright.

MANILA ROPE—For rope smaller than ¼-in. the price is ½ to 2c. extra; while for quantities amounting to less than 600 ft. there is an extra charge of 1c. The number of feet per pound for the various sizes is as follows: ⅛-in., 8 ft., ¼-in., 6; ⅜-in., 4½; 1-in., 3½; 1½-in., 2 ft. 10 in.; 1¾-in., 2 ft. 4 in. Following is price per pound for ¼-in. and larger, in 1200-ft. coils:

Boston	$0.32½	Kansas City	0.30½
New York	.29½	New Orleans	$0.28½
Chicago	.27½	Los Angeles	.31
Minneapolis	.29	Seattle	.28
San Francisco	.27	St. Louis	.26½
Atlanta	.29½	Montreal	.37
Denver	.30	Detroit	.26
Cincinnati	.35	Baltimore	.28

EXPLOSIVES—Price per pound of dynamite in small lots and price per 25 lb keg for black powder

	Low Freezing 20%	Gelatin 40%	Gelatin 60%	Gelatin 80%	Black Powder
New York	.....	$0.31½	$0.34½	.....	$2.30
Boston	.....	.28	.31	$.34	
Kansas City	.2475	27	30	34	2.40
Seattle	.18	.20½	.22½	29½	2.60
Chicago	.2175	.2525	.2975	.34	2.45
Minneapolis	.2067	.2476	.2782	.....	2.80
St. Louis	.23	.27	.30	34.25	2.20
Denver	.2175	.2575	.2875	.33	2.70
Dallas	265*	.275	.3025	.....	2.60
Los Angeles	22	.27	31	.....	2.95
Atlanta	22	.245	.265	.....	2.55
Baltimore	No shipments or quotations				
Cincinnati	2275	2525	2725	.....	2.30
Montreal	30	32	37	.38	4.10
New Orleans	.2425	.2825	.3125	.38	2.40

* 30 Per Cent

POLES — For spruce and plain pine poles, delivered New York, the price is as follows:

Spruce 10-in. butts, 5-in. tops, length 20-30 ft.	$8.50
Spruce 12-in. butts, 6-in. tops, length 30-40 ft.	10.50
Pine 12-in. butts, 6-in. tops, length 41-50 ft.	13.75
Pine 14-in. butts, 6-in. tops, length 51-60 ft.	22.50
Pine 14-in. butts, 6-in. tops, length 61-71 ft.	25.25

	Dallas
6-in. x 20-ft.	$4.60
6-in. x 30-ft.	7.10
8-in. x 30-ft.	8.45
8-in. x 35-ft.	10.38

OLD MATERIAL—The prices following are per gross ton paid to dealers and producers in New York. In Chicago and St. Louis the quotations are per net ton and cover delivery at the buyer's works, including freight transfer charges.

	New York	Chicago	St. Louis
No. 1 railroad wrought	$30.00	$29.75	$28.50
Stove plate	26.00	28.75	30.50
No. 1 machinery cast	41.00	36.50	38.50
Machine shop turnings	15.00	9.75	13.00
Cast borings	17.00	13.25	16.00
Railroad malleable cast	30.00	28.75	29.50
Re-rolling rails	35.50	38.00@39.00	35.00
Relaying rails	54.00	57.50@62.50	50@55

SHIP SPIKES—Current prices per 100 lb.

	San Francisco		Seattle
In.	Galv.	Black	Black
½	$9.20	$8.50	$8.55
⅜	8.75	6.75	8.25
¼	8.60	6.60	8.30

Pittsburgh base, $4.40@$4.75 per 100 lb.

LABOR RATES AND CONDITIONS THROUGHOUT THE COUNTRY

S means scarce; E, enough; P, plentiful

Cities	Bricklayers	Carpenters	Hoisting Engineers	Hod Carriers	Pile Drivers	Structural Iron Workers	Common Labor	Remarks
Atlanta	$0.90S	$0.60-75P	$0.50-65P	$.40-.45P	$0.60-.65	$0.75	$0.35S	
Baltimore	1.00E	.80-90E	.87½E	.46-.54E	.74E	1.00E	.35-.45E	Baltimore—Satisfactory supply of labor.
Boston	1.10P	1.00P	1.15@1.25P	.75P	1.25P	1.15@1.25P	.67½@.70P	Boston—Labor supply sufficient.
Cincinnati	1.25S	.90E	.75E	.70E	.....	.87½E	.60S	Cincinnati—Common labor scarce.
Chicago	1.25	1.25	.....	.....	.....	1.25	1.00	Chicago—Labor plentiful but independent. Contractors report increased efficiency.
Cleveland	1.00S	.90S	1.00E	.57½E	.80E	1.00E	.57½E	
Dallas	1.25S	1.00P	1.00E	.60E	1.00E	1.25S	.50@1.00P	Dallas—Common labor very scarce.
Denver	1.25E	1.16½E	1.16½@1.18½E	.75@.81½E	.....	1.15½E	.50@.56½	Denver—No strikes pending.
Detroit	1.25P	1.00E	1.10P	.70E	1.10E	1.25P	.65E	Detroit—All classes of labor is plentiful owing to slackness in construction because of lack of material.
Kansas City	1.12½	1.00	1.00	.90	1.00	1.10	.75	
Los Angeles	1.25P	.87½P	.87½P	1.00P	.87½P	.87½P	.56½-.62½E	Los Angeles—Rates shown are union; non-union a little less; but union scale prevails generally.
Minneapolis	1.25	1.00P	1.00	.75	.....	1.00	.60	Minneapolis—Increase in common-labor wage expected in a few weeks.
Montreal	1.00	.80-.85S	.65S	.50@.60S	.50	.50-.65	.47½-.55P	Montreal — Harvesting in West taking many men from common labor ranks.
New Orleans	1.00E	.95E	1.00E	.50@.60E	1.00E	1.00E	.40E	New Orleans—Labor market in bad shape owing to many strikes.
New York	1.25	1.12½	1.25	.87½	1.12½	1.12½	.75-.80	New York—Agreement of Nov. 20, 1919, was modified as shown, effective May 1, 1920. Excavators, 75c.; Concrete workers, 81½c.
Pittsburgh	1.50	1.20	.90S	.80S	1.00	1.25S	.50S	Pittsburgh—Conditions almost normal.
St. Louis	1.25	1.25	1.12½-1.25	.70	1.00-1.25	1.25	.52-.75	St. Louis—Bricklayers' helpers receive 80c.; Carpenters' helpers, 67½c.; as to hoisting engineers the rates are $1.12½ for one drum, $1.25 for two drums, and $1.21½ for road roller. Pile drivers receive $1.00 on wood and concrete, $1.25 on steel. Unskilled labor is classified as follows: Common, 52c.; construction, 67½c.; pipe laying, 75c.; track, 53c. Material dealers striking for Union recognition has caused a lockout of practically all construction labor.
San Francisco	1.25E	1.12½E	1.12½E	1.00E	1.12½E	1.12½E	.81½E	San Francisco—Sufficient labor of the trades shown, but there is a scarcity of concrete workers.
Seattle	1.12	.93½	.94	.75-.80	.90	1.00	.75S	

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close — See Eng. News-Record

Sept. 7 Hightstown, N. J. .....Aug. 26
Adv. Aug. 26.
Sept. 8 Tunica, Miss. .....Aug. 19
Sept. 21 Norfolk, Va. .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 23 Wauseon, O. .....Sept. 2

SEWERS

Sept. 6 Princeton, Ind. .....Sept. 2
Sept. 7 East Gary, Ind. .....Sept. 2
Sept. 7 Patterson, N. J. .....Aug. 26
Sept. 7 Plainfield, N. J. .....Aug. 26
Adv. Aug. 26.
Sept. 7 Wash., D. C. .....Aug. 19
Sept. 7 Jersey City, N. J. .....Sept. 2
Sept. 7 Bristol, Conn. .....Sept. 2
Sept. 8 Baltimore, Md. .....Sept. 2
Sept. 9 Montclair, N. J. .....Sept. 2
Sept. 9 Wabasso, Minn. .....Aug. 26
Sept. 10 Freeport, Minn. .....Sept. 2
Sept. 16 Teaneck, N. J. .....Sept. 2
Oct. 4 Pontiac, Mich. .....Aug. 26

BRIDGES

Sept. 7 Nanty-Glo, Pa. .....Aug. 26
Sept. 7 Indiana .....Aug. 26
Sept. 10 Victoria, B. C. .....Aug. 12
Sept. 11 Prescott, Ariz. .....Sept. 2
Sept. 13 Belleville, Kan. .....Aug. 26
Sept. 14 Floyd, Va. .....Sept. 2
Sept. 14 Lock Haven, Pa. .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 14 Perry, Ga. .....Aug. 26
Sept. 15 Asbury Park, N. J. .....Sept. 2
Adv. Sept. 2.
Sept. 15 Portsmouth, N. H. .....Sept. 2
Adv. Aug. 26 and Sept. 2.
Sept. 15 Providence, R. I. .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 15 Iola, Kan. .....Aug. 26
Sept. 15 Portsmouth, N. H. .....Aug. 12
Adv. Aug. 12 to Sept. 2.
Sept. 18 Salisbury, N. B. .....Sept. 2
Sept. 21 Union, W. Va. .....Sept. 2
Sept. 30 New Orleans, La. .....Aug. 26

STREETS AND ROADS

Sept. 6 El Centro, Cal. .....Sept. 2
Sept. 6 Indiana .....Aug. 19
Sept. 6 Bethany, Mo. .....Aug. 26
Sept. 7 Indiana .....Aug. 19
Sept. 7 Greenfield, Ind. .....Aug. 12
Sept. 7 Aitkin, Minn. .....Aug. 12
Sept. 7 Atlanta, Mich. .....Aug. 26
Sept. 7 Carlton, Minn. .....Aug. 26
Sept. 7 Red Bank, N. J. .....Aug. 26
Adv. Aug. 26.
Sept. 7 Missouri .....Sept. 2
Sept. 7 York, Ont. .....Sept. 2
Sept. 7 Maryland .....Sept. 2
Adv. Sept. 2.
Sept. 7 Munhall, Pa. .....Sept. 2
Sept. 7 Huntington, W. Va. .....Sept. 2
Sept. 8 Newark, N. J. .....Sept. 2
Sept. 8 Rogers, Mich. .....Sept. 2
Sept. 8 Cottonwood Falls, Kan. .....Aug. 12
Sept. 8 Brooklyn, N. Y. .....Sept. 2
Sept. 8 North Arlington (Arlington P. O.), N. J. .....Aug. 26
Sept. 8 Washington, D. C. .....Sept. 2
Adv. Aug. 26 and Sept. 2.
Sept. 9 Poughkeepsie, N. Y. .....Sept. 2
Adv. Sept. 2.
Sept. 9 Dodge City, Kan. .....Aug. 19
Sept. 9 Jersey City, N. J. .....Aug. 26
Sept. 10 Shakopee, Minn. .....Aug. 19
Sept. 10 Michigan .....Sept. 2
Sept. 10 New Jersey .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 10 Missouri .....Sept. 2
Sept. 10 Richmond, Mo. .....Sept. 2
Sept. 13 Jasper, Tex. .....Aug. 26
Sept. 13 Minneapolis, Minn. .....Aug. 26
Sept. 14 Fergus Falls, Minn. .....Aug. 19
Sept. 14 Newaygo, Mich. .....Sept. 2
Sept. 14 Charleston, W. Va. .....Aug. 19
Sept. 14 Garnett, Kan. .....Aug. 19
Sept. 15 Clinton, Ia. .....Sept. 2
Adv. Sept. 2.
Sept. 16 Ontonagon, Mich. .....Sept. 2
Sept. 16 Girard, Kan. .....Aug. 26
Sept. 16 Franklin, Tex. .....Sept. 2
Sept. 17 Lapeer, Mich. .....Sept. 2

Bids Close — See Eng. News-Record

Sept. 20 Vanceboro, N. C. .....Sept. 2
Sept. 21 St. George, S. C. .....Aug. 12
Sept. 22 Charleston, W. Va. .....Sept. 2
Sept. 28 Kaufman, Tex. .....Sept. 2

EXCAVATION AND DREDGING

Sept. 7 Redwood Falls, Minn. .....Sept. 2
Sept. 10 Corsica, S. D. .....Aug. 19
Adv. Aug. 19 to Sept. 2.
Sept. 10 Granite Falls, Minn. .....Sept. 2
Sept. 11 Latham, Ill. .....Sept. 2
Sept. 13 Pontiac, Mich. .....Sept. 2
Adv. Sept. 2.
Sept. 14 Patterson, N. J. .....Sept. 2
Sept. 14 Ft. Dodge, Ia. .....Sept. 2
Sept. 27 Eudora, Ark. .....Sept. 2
Adv. Sept. 2.

INDUSTRIAL WORKS

Sept. 6 Jacksonville, Fla. .....Sept. 2
Sept. 6 Kansas City, Mo. .....Sept. 2
Sept. 7 Cleveland, O. .....Sept. 2
Sept. 7 New Orleans, La. .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 7 New York, N. Y. .....Aug. 26
Sept. 8 Minnewaukan, N. D. .....Aug. 26
Sept. 11 Watford, Ont. .....Sept. 2
Sept. 15 Ossining, N. Y. .....Aug. 19
Sept. 17 Wakeeney, Kan. .....Sept. 2
Sept. 29 Buffalo, N. Y. .....Aug. 26

BUILDINGS

Sept. 6 Detroit, Mich. .....Aug. 26
Sept. 6 London, Ont. .....Sept. 2
Sept. 7 Hartford, Conn. .....Aug. 26
Sept. 7 Marmarth, N. D. .....Aug. 19
Sept. 7 Windsor, Conn. .....Aug. 19
Sept. 7 Haston, Col. .....Sept. 2
Sept. 8 Kansas City, Kan. .....Sept. 2
Sept. 8 Wash., D. C. .....Aug. 19
Sept. 8 Detroit, Mich. .....Aug. 26
Sept. 8 Vincennes, Ind. .....Sept. 2
Adv. Aug. 19 to Sept. 2.
Sept. 9 New York, N. Y. .....Sept. 2
Sept. 10 West Hartford (Hartford P. O.), Conn. .....Aug. 19
Sept. 10 Great Neck, N. Y. .....Aug. 26
Sept. 10 Athol, Mass. .....Sept. 2
Sept. 11 London, Ont. .....Sept. 2
Sept. 14 Erie, Pa. .....Sept. 2
Sept. 14 Marmarth, N. D. .....Sept. 2
Sept. 14 Montevideo, Minn. .....Aug. 26
Sept. 14 Glassboro, N. J. .....Aug. 26
Sept. 15 Edinburg, Tex. .....Aug. 26
Sept. 15 Fond du Lac, Wis. .....Sept. 2
Sept. 15 Ossining, N. Y. .....Aug. 26
Sept. 15 Denver, Col. .....Aug. 12
Sept. 15 Denver, Col. .....Aug. 5
Sept. 20 Brooklyn, N. Y. .....Aug. 26
Sept. 21 Springfield, O. .....Sept. 2
Sept. 22 Wiota, Ia. .....Sept. 2
Oct. 1 Granite City, Ill. .....Sept. 2
Oct. 12 Huron, S. D. .....Sept. 2

FEDERAL GOVERNMENT WORK

Sept. 7 Removing Wreck—Wilmington, Del. .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 8 Improving Hospital—Spec. 4262—Paris Island, S. C. .....Aug. 26
Sept. 9 Structural Steel—Louisville, Ky. .....Aug. 26
Adv. Aug. 19 to Sept. 2.
Sept. 9 Road Work—Arizona .....Sept. 2
Sept. 11 Mechanic Shop, etc., Mare Island, Cal. .....Sept. 2
Sept. 13 Barges—Nashville, Tenn. .....Aug. 26
Adv. Aug. 19 to Sept. 2.
Sept. 14 Electric Freight Lift etc.—St. Paul, Minn. .....Aug. 26
Sept. 15 Lifeboat House and Accessories—Marblehead, O. .....Aug. 26
Sept. 15 Pontoon Catamarans—Jacksonville, Fla. .....Aug. 26
Adv. Aug. 26 and Sept. 2.
Sept. 15 Remodeling Post Office and Courthouse—Freeport, Ill. .....Sept. 2
Sept. 15 Jetty—Jacksonville, Fla. .....Aug. 26
Adv. Aug. 19 to Sept. 2.
Sept. 16 Jetty—New Orleans, La. .....Aug. 19
Adv. Aug. 19 to Sept. 2.
Sept. 21 Sound Deadening Wall and Ceiling Covering—Wilmington, N. C. .....Sept. 2
Sept. 23 Refrigerating Machine — New Orleans, La. .....Sept. 2
Sept. 25 Harbor Development—Spec. 4136—Great Lakes, Ill. .....Aug. 19
Sept. 30 Metal Work—Key West, Fla. .....Sept. 2
Adv. Aug. 26 and Sept. 2.
Sept. 6 Retaining Wall, etc.—Cleveland, O. .....Aug. 12

MISCELLANEOUS

Bids Close — See Eng. News-Record

Sept. 6 Paving Materials—St. Paul, Minn. .....Sept. 2
Sept. 7 Cleaning Machine—Newark, N. J. .....Sept. 2
Sept. 7 Tarvia and Crushed Stone—Bloomfield, N. J. .....Sept. 2
Sept. 7 Dikes—St. Louis, Mo. .....Aug. 19
Sept. 7 Wharf—Thessalon, Ont. .....Aug. 26
Sept. 8 Breakwater—West Chezzetcook, N. S. .....Aug. 26
Sept. 8 Installing Domestic Hot Water System—Bath, N. Y. .....Aug. 26
Sept. 8 Fire Alarm System—Baltimore, Md. .....Sept. 2
Sept. 9 Terminal—Buffalo, N. Y. .....Aug. 12
Adv. Aug. 5 to 26.
Sept. 9 Terminal — Rouses Point, N. Y. .....Aug. 12
Adv. Aug. 5 to Sept. 2.
Sept. 9 Bulkheads and Jetties—New York, N. Y. .....Sept. 2
Sept. 9 Coal Conveyor—New York, N. Y. .....Sept. 2
Sept. 10 Breakwater — Port Colborne, Ont. .....Sept. 2
Sept. 11 Lighting System—London, Ont. .....Sept. 2
Sept. 14 Foundation—Phila., Pa. .....Aug. 26
Adv. Aug. 5 to Sept. 2.
Sept. 14 Gate Valves, Sleeves, etc.—Detroit, Mich. .....Sept. 2
Sept. 14 Breakwater—Port Maitland, N. S. .....Sept. 2
Sept. 14 Pier—Toronto, Ont. .....Sept. 2
Sept. 15 Retaining Wall — Asbury Park, N. J. .....Sept. 2
Adv. Sept. 2.
Sept. 15 Lighting Equipment—Detroit, Mich. .....Aug. 26
Sept. 20 Sewer Cleaner—Lockport, N. Y. .....Sept. 2
Adv. Sept. 2.
Sept. 21 Dam, Pump House, etc.—Norfolk, Va. .....Aug. 26
Adv. Aug. 19 to Sept. 2.
Sept. 21 Shafts—New York, N. Y. .....Sept. 2
Adv. Sept. 2.
Sept. 22 Breakwater—Chicago, Ill. .....Aug. 19
Adv. Aug. 26 and Sept. 2.
Sept. 30 Transformers, etc.—Sacramento, Cal. .....Aug. 19

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. H., North Stratford—Town soon lets contract extending waterworks. About $75,000. S. Moore, Lancaster, engr.

S. C., Greenville — City voted $100,000 bonds to extend waterworks system. A. Perry, Greenville, engr.

O., Bellaire—City plans to issue $30,000 bonds to improve waterworks system. G. W. Althar, clk.

Neb., Sidney—City plans to build waterworks system. About $126,000. Engineer will be selected at once.

Wyo., Douglas—City voted $75,000 bonds to build filtering system and gathering lines for supply system extending from North Platte River above mouth of Antelope Creek to Douglas. About $66,000. A. Cummings, Douglas, consult. engr.

Wyo., Rawlins—City having preliminary investigations and surveys made by C. C. Carlisle, engr., Cheyenne, for three sources of water supply. Work will include complete system for bringing water to city either from Platte River, Sage Creek or Horse Shoe Bend.

Mont., Roundup—City plans to extend water mains to new residential section and replace old mains in business section. About $25,000.

Okla., Purcell—City plans election soon to vote on $382,000 bonds to build new water supply system, filteration plant, lay extensions to water mains, improve electric light plant and build sanitary sewer extensions. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs. Noted June 17.

Waterworks (Continued)

Okla., Stigler—City had preliminary plans prepared for extensions to waterworks system, to include water purification plant, pumping station, etc. About $35,000. G. Melton, clk. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma, engrs.

BIDS DESIRED

O., Wauseon—Until Sept. 23, by Bd. Trustees of Pub. Affairs, furnishing labor and material for constructing certain improvements to waterworks system, including rapid sand, gravity filter plant and appurtenances, consisting of 2 units of 375,000 gal. each with provision for 2 additional units later. J. King, clk.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Brockton**—City let contract building filter beds, involving 43,780 ft. 6 in. segmental block pipe, vitr. channel, 47,225 lb. steel, 516 cu.yd. reinforcing concrete, 541 cu.yd. concrete, 7,050 cu.yd. earth trenching, 1 acre sprinkling filter, and 19,500 tons crushed stone, to G. Howard & Sons Co., 153 Main St., $155,208.

★**N. Y., Brooklyn**—N. J. Hayes, comr. water supply, gas and electricity, Municipal Bldg., New York City, let contract hauling and laying watermains and appurtenances in Brighton Beach, Coney Island and Neptune Aves., here, to Pallidino Contg. Co., 2154 1st Ave., New York City, $10,896. Noted Aug. 12.

★**N. Y., Long Island City**—N. J. Hayes, comr. water, gas and electricity, Municipal Bldg., New York City, let contract hauling and laying watermains and appurtenances in Nott and 16th Aves., Sherman St., Maxwell and 59th Aves., Murray and 25th Sts. and in head of Vleigh and 76th Rds., Queens Boro., to Pallidino Contg. Co., 2154 1st Ave., New York City, $7,850. Noted Aug. 12.

★**N. Y., S. I., St. George**—N. J. Hayes, comr. water, gas, and electrcity, Municipal Bldg., New York City, let contract hauling and laying watermains and appurtenances in Barnard St., Bradley, Chicago, Davis, Egbert, Holland, Mada, St. Marys and Winant Aves., Duer Lane, Maple Parkway and Continental Pl., Richmond Boro., to Pallidino Contg. Co., 2154 1st Ave., New York City, $17,550. Noted Aug. 12.

Sewers

PROPOSED WORK

Me., Lewiston—See "Industrial Works."

S. C., Greenville—See "Streets and Roads."

Neb., Wauneta—City having plans prepared by E. T. Archer & Co., engrs., 609 New Eng. Bldg., Kansas City, Mo., for building sewers in three blocks. About $25,000.

Okla., Purcell—See "Waterworks."

BIDS DESIRED

Conn., Bristol—Until Sept. 7, by Pub. Wks. Dept., building 500 ft. sewer in Muzzy St., 1,025 ft. Atkins Ave., 500 ft. Wolcott St., 250 ft. Curtiss St., 1,000 ft. Sect. "A" Burlington Ave., 2,250 ft. Sect. B, 600 ft. Lewis St., 650 ft. Union St., all vitr. pipe. Sperry & Buell, 175 Main St., engrs.

N. J., Jersey City—Until Sept. 7, by Bd. City Commrs., building sewerage system in Fisk St. drainage area. F. A. Dolan, clk.

N. J., Montclair—Until Sept. 9, by Bd. Town Comrs., building section of Lorraine Ave. underground drain or storm sewer, extending in Grove St. and Lorraine Ave. to Park St., to include catch basins, manholes, etc. H. Trippert, clk.

N. J., Teaneck—Until Sept. 16, by Township Com., Bergen Co., building sewerage system and sewage treatment works. R. J. Lewis, clk.; advertised in this issue.

Md., Baltimore—Until Sept. 8, by Bd. Awards, c/o City Register, building hydrolytic tank and appurtenances, sludge digestion tank, pipe lines and appurtenances, at Sewage Disposal Wks., west shore, Back River, Baltimore Co. Former bids rejected. H. G. Perring, ch. engr. Noted Aug. 12.

Ind., East Gary—Until Sept. 7, at office of C. P. Papka, town clk., furnishing labor and material for building Sewer Dist. 1, involving 9,397 lin.ft. 10-24 in. vitr. pipe. About $44,763.

Ind., Princeton—Until Sept. 6, by Common Council, Bway. and Princeton St., building sanitary sewage disposal plant. About $41,850. C. E. McCormick, city clk.

Minn., Freeport—Until Sept. 10, by F. Reiland, village recdr., building 2 mi. sanitary sewerage system, involving 4,916 lin. ft. 8 in. vitr. pipe, 936 lin. ft. 10 in. vitr. sewer pipe, 110 lin. ft. 8 in. Class A c. i. water pipe, 667 lin. ft. trench 6-12 ft. deep. About $30,000. Bradley Eng. Co., St. Cloud, engrs. Noted July 15.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract building sewers in Saville and Wren Sts., to J. Barletta, 10 Whipple Ave., $40,962.

N. Y., Brooklyn—E. Riegelmann boro. pres. received bids Aug. 26, building sewer in (1) East 37th St. from Ave. L south to Long Island R.R., (2) East 15th St. from end of existing sewer to point about 380 ft. south of Ave. I and Ave. J, building sewer basin at southwest corner of (3) 47th St. and old New Utrecht Ave., (4) Benson Ave. at north and east corners of Bay 11th St., (5) 19th Ave. at easterly corner of 67th St., (6) Sheepshead Bay Rd., from Tomassetti Constr. Co. (1) $3,331, (2) $3,971, (3) $375, (4) $720, (5) $360, (6) $350; Murphy Bros., (1) $3,756, (2) $4,274; J. Jennings, Seaside, L. I., (1) $4,136, (2) $5,114, (3) $200 (4) $1,200, (5) $435, (6) $396. Noted Aug. 19.

★**N. Y., Long Island City**—M. E. Connolly, pres. Queens Boro., let contract building sewer in Flushing Ave. from Collins to Clermont Aves., to Rotti & Co., Woodhaven, $16,984; Prospect St., to Peace Bros., 20 Main St., Flushing, $3,933; Laurel Hill Ave., to F. L. Paino, Woodhaven, $440,292. Noted Aug. 26.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received bids Aug. 23, building temporary sanitary sewer in Seaside Blvd. from Sea Ave. to point 3,000 ft. west of Sand Lane, from J. Johnson Sons, $133,258. Noted Aug. 19.

★**Pa., Phila.**—City let contract building sewer in Delaware Ave., from Snyder to Porter Sts., involving 2,300 ft. concrete pipe, to W. H. Garson, 5033 Brown St., $149,230.

O., Cleveland Heights (Warrensville, P. O.)—Village received only bid building sewer in Cumberland Ave. from Lee to Mayfield Rds., involving 5,140 ft. 8-24 in. vitr. pipe, from A. Marra, 345 The Arcade, Cleveland, $31,353.

★**Wis., Darlington**—City let contract furnishing material and excavating and laying 8,500 lin. ft. 10-24 in. vitr. pipe, in Main and Galena Sts., to E. A. Sweeney, Main St., Reedsburg. Cost between $25,000 and $30,000. Noted July 29.

Bridges

PROPOSED WORK

Mo., Kansas City—Bd. Pub. Wks., c/o E. E. McCabe, secy., City Hall, having preliminary plans prepared for rein.-con. bridge over Blue River, on Washington Park Blvd. Rd. About $200,000. Hedrick & Huff, Interstate Bldg., engrs. Noted March 25.

Tex., Bonham—Bonham Red River Bridge Comn. opens bids about Sept. 20, building bridge over Red River. Former bids rejected. Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, Mo., engrs. Noted Aug. 5.

Tex., Del Rio—Val Verde Co. had plans prepared building 500 ft. highwater bridge, 18 ft. wide, over Pecos River, to have three 150 ft. steel truss spans with concrete piers and abutments. About $194,381. G. M. Sowers, Del Rio, co. engr.

Ont., Port Stanley—See "Miscellaneous."

BIDS DESIRED

N. H., Portsmouth—Until Sept. 15, by Piscataqua River Bridge Com., City Hall, building 2 piers and 2 abutments for bridge to be built across Piscataqua River between here and Kittery, Me. J. H. Bartlett, secy.; advertised in this issue.

N. J., Asbury Park—Until Sept. 15, by A. G. King, city clk., furnishing labor and material building bridge flume and dam at easterly end of Deal Lake on boundary line between here and Ocean Twp.; advertised in this issue.

W. Va., Union—Until Sept. 21, by E. S. McNeer, clk. Monroe Co. building 80 ft. rein.-con. one-span bridge over Potts Creek, at Bradley Siding, about 2 mi. below Waiteville. J. H. Sydenstricker, co. engr.

Ariz., Prescott—Until Sept. 11, by T. H. Maddock, state engr., c/o Bd. Supervs. Yavapai Co., building 85 ft. rein.-con. bridge, to have two 42½ in. spans, across Granite Creek, on Sect. 4, Prescott-Jerome Highway, Federal Aid Project 19B, involving 400 cu.yd. excav., 300 cu.yd. concrete and 29,000 lb. reinforcing steel.

N. B., Salisbury—Until Sept. 18, by C. R. Brown, ch. engr., Canadian Natl. Rys., Moncton, building 2 abutments and 1 pier for railway bridge over Petitcodiac River, near here. About $60,000.

Ont., Hamilton—Until Sept. 7, by W. A. McLean, deputy minister of highways, Toronto building following work on Toronto-Hamilton and Provincial Highways, entering this city: steel superstructures for Bridges 1, 2 and 3, Contr. 139, 140 and 141, excav., pile driving and constructing concrete substructures and floors for Bridges 1, 2 and 3, Contr. 142, 143 and 144, fencing, clearing, grubbing and grading entire entrance. Contr. 145. About $200,000. S. Hogarth, Parliament Bldgs., Toronto, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Me., Biddeford—York Co. and State Highway Comm., Augusta, received bids building Bway Bridge, rein.-con., on Elm St., here, from Rendle-Stoddard Co., 321 Marginal St., Chelsea, Mass., $128,250; J. H. Kerr, Rumford, $134,721; Sanders Eng. Co., 102 Exchange St., Portland, $144,500.

★**Mass., Andover**—Town and Essex Co., c/o Bd. Selectmen, Andover, let contract building rein.-con. bridge over Shawsheen River, on Haverhill St., to Collins Constr. Co., Andover, $39,200.

★**Minn., Cambridge**—Isanti Co. let contract building State Bridge 3332, to have three 18 x 75 ft. truss spans on rein.-con. abutments and gravity piers, to M. A. Adams & Co., 928 Andrus Bldg., Minneapolis, $29,874. Noted Aug. 26.

★**Mo., St. Joseph**—Buchanan Co. will build culverts and 5 bridges on 20.02 mi. St. Joseph—Atchison Rd., State Rd. Project 49. Work will be done by day labor. Noted Aug. 5 under "Streets & Roads".

★**Idaho**—State Highway Dept., Boise, let contract building four 40 ft. and two 32 ft. concrete span bridges, 18 ft. roadways, over Bonners Ferry, Bonner Co. line, Federal Aid Project 20, Boundary Co., to C. A. McClung, East 904 Mission Ave., Spokane, Wash., $34,750.

★**Idaho, Boise**—State Highway Dept., let contracts to Security Bridge Co., Lewiston, building 560 ft. steel spanbridge to have four 40 ft. spans, pile trestle approaches and 18 ft. roadway, over Walters Ferry, in Canyon and Owyhee Counties, $64,800; 420 ft. steel span bridge, to have three 140 ft. spans, pile trestle approaches and 18 ft. roadway, at Grandview, Ada and Owyhee Counties, $50,900. Noted Aug. 12.

Streets and Roads

PROPOSED WORK

Me., Lewiston—See "Industrial Works."

Massachusetts—State Highway Comn., Boston., soon lets contract biulding 5,032 ft. Mountain Rd., Holyoke, cost $50,000; 2,100 ft. state highway, Dracut; 3,700 ft., Agawam Twp., all btuminous macadam.

Mass., Boston—City soon receives bids building 952 ft. Cushman Rd., 40 ft. wide. About $25,000.

Mass., Boston—Pub. Wks. Dept. soon lets contract paving Albany St., granite block. Cost to exceed $50,000.

Mass., Fall River—City plans to resurface various streets. About $75,000 appropriated for project.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, plans to build lateral road from Elk Mills to Cherry Hill, Fair Hill to Appleton, St. Augustine to Cayots Corner, Cecilton to Earlville, state road from Port Deposit to Perryville, Calvert to Fair Hill, Cecil Co.; lateral road through Mt. Rainier, along 34th St., state road, Central Ave. to Halls Sta., Defense Highway to Anne Arundel Co. line, Prince Georges Co.; lateral road from Middleburg Pike, Hagerstown north to Pennsylvania line state road from end of Contr. W-17 into Keedysville, Williamsport Pike, Hagerstown south to Williamsport, Washington Co. J. N. Mackall, state highway engr.

Md., Baltimore—Bd. Awards, care of City Register, rejected bids received Aug. 18, grading, curbing and paving Lanvale St., Lauretta, Wheeler, Warwick, Oswego and Charlotte Aves., Contr. 178. Noted Aug. 12.

Streets and Roads (Continued)

Va., Wise—Wise Co. plans to expend $700,000 to rebuild roads in Richmond and Gladville Dists. O. H. Beverly, co. engr.

W. Va., Ripley—Jackson Co. voted $130,000 bonds to grade and pave 10 mi. Charleston-Columbus Turnpike. N. F. Hathway, Ripley, engr. Noted Aug. 5.

S. C., Greenville—City voted $100,000 bonds to pave, curb and build storm sewers in various streets. W. D. Neves, Greenville, engr.

Wis., Juneau—Dodge Co. plans to pave 5.7 mi. various roads, 18 ft. wide, concrete. About $100,000. Engineer not selected.

S. D., Flandreau—Town plans election in fall or spring, to vote on $135,000 bonds to grade and pave various streets, asphaltic concrete, bitulithic, creosoted wood block and concrete. L. P. Wolff, 1001 Guardian Life Bldg., St. Paul, Minn., engr.

Okla., Ada—City having preliminary plans prepared paving various streets in Dists. 6 and 11. About $850,000. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs. Noted April 1.

Okla., Purcell—City having plans prepared paving various streets in residential district. About $200,000. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs.

Oregon—State Highway Comn., Salem, soon receives bids paving, grading, surfacing and building bridges and trestles, etc., on following main trunk roads: Pacific Highway, 9.7 mi. macadam, cost $117,000, 158 mi. pavement, $4,375,250, 17 bridges, $943,000, and grading, $4,500; Pacific Highway (west side), 14.7 mi. grading, $102,900, 45.6 mi. paving, $1,469,000, bridges, $174,250; Tualatin Highway, 14.7 mi. paving, $407,500, 4 bridges, $100,000; Columbia River Highway, 28 mi. macadam, $317,000, 38 mi. paving, $1,074,000, and 1 bridge, $100,000; McMinnville-Tillamook Highway, 13.6 mi. macadam, $158,000, 10 mi. paving, $300,000, and 5 bridges, $34,250; Old Oregon Trail, 122.7 mi. grading, $947,500, 157.5 macadam, $1,244,400, and 24 bridges, $452,600; John Day Highway, 158 mi. grading, $958,000, 233.4 mi. macadam, $1,878,200, and 3 bridges, $120,500; Dalles-California Highway, 180 mi. grading, $884,000, 180 mi. macadam, $1,440,000, and 2 bridges, $88,000; Crater Lake Rd., 54 mi. grading, $318,000, 79 mi. macadam, $632,000, and 11 bridges, $165,000; Roseburg-Coo Bay Rd., 48 mi. grading, $240,000, 62 mi. macadam, $496,000, 8 mi. paving, $240,000, and 4 bridges, $122,000. H. Nunn, Salem, state highway engr.

Ont., York—Township opens bids about Oct. 1, building 10 mi. concrete sidewalks and curbs on Humber Blvd. Bee Caledonia and Dundurn Sts., Eileen, Miller, McNab, Oakwood and Southport Aves., Graham, Spadina, Vaughan and Weston Rds. About $79,090. F. Barber, 40 Jarvis St., Toronto, engr.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 8, E. Riegelmann, boro. pres., regulating and repaving with permanent Grade 1 granite on 6 in. concrete foundation, roadway of Ferris St. from King to Coffey Sts., Sullivan St. from point 519 ft. west of Ferris to Ferris St., with permanent Durax block on 6 in. concrete foundation, Van Dyke St. from Ferris to Conover Sts., with Grade 1 granite on present concrete foundation, 3rd St. from Bond St. to 4th Ave., regulating, grading, curbing and laying sidewalks on Ave. I from East 26th to East 28th Sts., regulating, grading, curbing, laying sidewalks and paving with preliminary bituminous macadam, Neptune Ave. from Stillwell Ave. to West 15th St., also furnishing and delivering 40,000 wood paving blocks.

N. Y., Poughkeepsie—Until Sept. 9, by Bd. Pub. Wks., Eastman Park Mansion, for 980 cu.yd. concrete pavement, 1,870 cu.yd. concrete foundation and relaying 900 sq.yd. brick pavement in trolley area on Main St. east of Cherry St.; advertised in this issue.

N. J., Newark—Until Sept. 8, by Joint Bridge Com., Essex Co. and Hudson Co. (Jersey City), repaving Bridge St. Bridge over Passaic River, also Clay St. Bridge, over Passaic River. F. E. Ward, clk.

Pa., Munhall—Until Sept. 7, by Boro. Clerk, building concrete pavement with concrete curbing on 600 ft. Maple St. from 18th to 20th Sts.; 400 ft. 19th Ave. from east side of Maple St. to boro line between Homestead and Munhall Boros.; 370 ft. 20th Ave. on east side of Maple St. eastward to boro. line between Homestead and Munhall Boros. Work involves 1460 cu.yd. excav., 772 lin. ft. curbing and 5428 sq.yd. concrete roadway.

Maryland—Until Sept. 7, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building .5 mi. state highway through town of Mt. Rainier. Contr. P-21. J. N. Mackall, chn.; advertised in this issue.

D. C., Wash.—Until Sept. 8, by Dist. Comrs., Dist. Bldg., paving various roadways with bituminous macadam. L. Brownlow, comr.; advertised in this issue.

W. Va., Charleston—Until Sept. 22 by Kanawha Co., grading and draining 4.55 mi. Indian Creek Rd. L. C. Massey, clk.

W. Va., Huntington—Until Sept. 7 by City Comrs. grading, curbing and paving 14th St from Washington to Madison Aves., 2d St. from 10th to 11th Aves., 2½ alley from 20th to 21st Sts. A. B. Maupin, city engr.

N. C., Vanceboro—Until Sept. 20, by Mayor, paving about 14,000 sq.yd. main streets. R. R. Eagle, New Bern, engr.

Michigan—Until Sept. 10, at Dist. Office, State Highway Dept., Port Huron, grading and draining 5.72 mi. State Trunk Line Rd. 27-13, involving 13,458 cu.yd. earth excav., 462 cu.yd. concrete in culverts, 11,150 lb. steel reinforcement, etc.

Mich., Lapeer—Until Sept. 17, by Bd. Rd. Comrs. Lapeer Co., grading, surfacing and drainage 2.993 mi. State Trunk Line Rd. 21-12, 16 ft. wide, involving 14,274 cu.yd. earth excav., 28,093 sq.yd. gravel, etc. Former bids rejected. State Highway Dept., Lansing, engrs. Noted Aug. 5.

Mich., Newaygo—Until Sept. 14, by Bd. Rd. Comrs. Newaygo Co., grading, surfacing and draining 2.561 mi. State Trunk Line Rd. 24-4, Sect. A, 16 ft. wide, involving 14,211 cu.yd. earth excav., 24,024 sq.yd. gravel, etc. State Highway Dept., Lansing, engrs.

Mich., Ontonagon—Until Sept. 16, by Comrs. Ontonagon Co., grading, surfacing and draining 2.865 mi. State Trunk Line Rd. 68-1, Sect. A, 16-20 ft. wide, involving 6,226 cu.yd. earth excav., 26,981.5 cu.yd. concrete, bituminous concrete, waterbound macadam or bituminous macadam. State Highway Dept., Lansing, engrs. Noted Aug. 5.

Mich., Rogers—Until Sept. 8, by Comrs. Presque Isle Co., grading, gravel surfacing and draining 2.99 mi. State Trunk Line Rd. 10-24, Sect. A, 16 ft. wide, involving 24,300 cu.yd. earth excav., 28,656 sq.yd. gravel, 153.5 cu.yd. concrete in culverts, etc.

Ia., Clinton—Until Sept. 15, by J. W. Strohm, aud. Clinton Co., grading, paving and draining Clinton, De Witt, Grand Mound Rd. from here west to section line between Sects. 14-15, T. 81, R. 3, E.; advertised in this issue.

Missouri—Until Sept. 7, by State Highway Dept., Bolivar, building 13.864 mi. Bolinger-Springfield Rd. (Springfield Special Rd. Dist.), 24 ft. wide, Federal Aid Project 33, Polk Co., involving 52,030 cu.yd. earth and 3,555 cu.yd. rock excav., 4,050 cu.yd. borrow, 370.42 cu.yd. Class "B" and 168.6 cu.yd. Class "C" concrete masonry, 22,931 lb. reinforcement for concrete masonry, 124.2 cu.yd. cement rubble masonry, 51,107 sq.yd. 10½ in. and 47,976 sq.yd. 5½ in. gravel pavement, clay bound, etc. About $90,496.

Missouri—Until Sept. 10, by State Highway Dept., Richmond, building 2.04 mi. State Rd. from Richmond east, 24 ft. wide, State Aid Project S. 20.5, Ray Co., involving 20,467 cu.yd. earth excav., 119 cu.yd. Class "B" and 16.8 cu.yd. Class "C" concrete masonry, 9,840 lb. reinforcement for concrete masonry. About $25,000.

Mo., Richmond—Until Sept. 10, by Ray Co., paving 2 mi. road, east of here, 18 ft. wide, concrete. About $23,774. Leslie-Barnes Eng. Co., Amer Natl. Bank Bldg., St. Joseph, engrs.

Tex., Franklin—Until Sept. 16, by Comrs. Robertson Co., grading, surfacing, draining and building steel span bridges on 17.99 mi. Highway 14 from Nesbit to point 2 mi. north of Wheelock, 15 ft. wide. Work involves 83,797 cu.yd. borrow, 35,954 cu.yd. earth and 944 cu.yd. structural excav., 1,285.1 cu.yd concrete in bridges and culverts, 35,050 cu.yd. gravel, 10[illegible],740 lb. reinforcing and 145,200 lb. structural steel. About $209,455. L. Acker, Nacogdoches, engr. Noted May 20.

Tex., Kaufman—Until Sept. [illegible] Comrs. Kaufman Co., grading, su[illegible] and draining 10.76 mi. Highway 40, [illegible] Precinct 8, 15 ft. wide, involving [illegible] cu.yd. earth borrow, 9,722 cu.yd. ear[illegible] 450 cu.yd. structural excav., 94.4 [illegible] Class "A" concrete, 19,185 cu.yd. [illegible] 19,223 lb. structural and 7,016 lb. [illegible] forcing steel, etc., cost $113,158; 16.2 [illegible] Highway 15, Federal Aid Project 1[illegible] ft. wide, 15,382 cu.yd. borrow, and [illegible] cu.yd. earth excav., 95 cu.yd. concre[illegible] 552 gal. bituminous macadam, 20,6[illegible] yd. gravel, 4,907 lb. structural and [illegible] lb. reinforcing steel, etc., $177,250 [illegible] lett Ranney, co. engrs.

Cal., El Centro—Until Sept. 6, by [illegible] Supervs. Imperial Co., paving 28.5[illegible] highways. Warrenite or concrete [illegible] grading will be done by county forces.

Ont., York—Until Sept. 7, by F. Ba[illegible] twp. engr., 40 Jarvis St., Toronto, pa[illegible] 1¾ mi. Arlington, Atlas, Barrie, Lan[illegible] Miller and Wychwood Aves., Dufferin St[illegible] Earnscliffe and Rushton Rds., involving [illegible] 000 sq.yd. asphalt or bituminous macad[illegible] About $127,730.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Maine**—State Highway Comn., Augusta, let contract graveling 5.18 mi. state highway, Perry and Pembroke, to J. H. Stafford, Bar Harbor, $84,255.

★**Me., Portland**—City let contract paving Morning St., compressed concrete, also Congress St., involving 1,956 sq.yd. split redressed granite block, to Hassam Paving Co., 17 Federal St., Worcester, Mass. Noted July 15.

★**Me., Winthrop**—City will build Winthrop Center Rd., waterbound macadam. About $25,000. Private plans. Work will be done by day labor.

★**Vermont**—State Highway Comn., Montpelier, let contract building 4.07 mi. State Highway Project 13, New Haven and Waltham, waterbound macadam, to W. F. Loud & Son Co., 94 Hall Pl., Quincy, Mass., $108,110; 0.73 mi. Project 3, Barnet, waterbound macadam, to J. Arborio Co., 80 Park St., New Haven, Conn., $28,497; 681 mi Sect A, Project 12, Mt. Tabor, Dorset and Danby, gravel, to G. L. Gregoire & Co, Barre, $132,717; 676 mi. Sect. B, Project 12, to W. E. Dix Corp., Springfield, Mass., $120,242. Noted Aug. 26.

★**Massachusetts**—State Highway Dept., Boston, let contract building 5,300 ft. bituminous macadam and cement concrete highway, Canton, to G. T. Seabury, Inc., 100 Summer St., Providence, $49,092; 5,980 ft. bituminous macadam highway, Princeton, to C. Bianchi & Co., Framingham, $32,225.

★**Massachusetts**—State Highway Dept., Boston, let contract building 2,440 ft. bituminous macadam highway, Andover, to G. T. Seabury, Inc., 100 Sumner St., Providence, R. I. $39,757.

★**Massachusetts**—State Highway Comn., Boston, let contract building 1,620 ft. bituminous macadam highway, Framingham, to C. Bianchi & Co., Framingham, $9,026; paving and improving bituminous macadam state highway, Boston, to Welsh & Montague, Salem, $25,000.

★**Mass., Boston**—City let contract paving Center and South Sts., West Roxbury, sheet asphalt, to Bermudez Co., 246-1st St., Cambridge, $75,877. Noted Aug. 26.

★**Mass., New Bedford**—City let contract paving 14,460 sq.yd. various streets, Warrenite, to Warren Bros. Co., 142 Berkeley St., Boston, $2.49 per sq.yd.

★**Mass., Southbridge**—City let contract paving 3,500 ft. Main, Elm and Congress Sts., involving 14,250 sq.yd. concrete, 300 lin.ft. granite curbing and 60 lin.ft. sidewalk, to C. Bianchi & Co., Framingham, $55,453.

★**R. I., Providence**—City let contract paving 4,447 ft. Charles St. and Regent Ave. 34 and 24 ft. wide respectively, involving 12,200 sq.yd. asphalt, to Narragansett Impvt. Co., 122 Public St., $2.40 per yd.

★**Conn., Hamden**—City let contract paving State St., bituminouos concrete to R. D. Daley & Co., 6 Church St., New Haven. About $25,000.

★**Conn., New Haven**—City let contract paving Poplar St., to R. D. Daley Co., 6 Church St., $41,460. Noted Aug. 12.

Streets and Roads (Continued)

★**Conn., New Haven**—City let contract paving Saltonstall Ave., bituminous macadam and Newhall St., Topeka, to Connecticut Natl. Pavements Co., 173 Orange St., $29,185 and $9,290 respectively; Ross and Cedar Sts., Topeka, to C. W. Blakeslee & Sons, 58 Waverly St., $3,751 and $1,715 respectively. Noted Aug. 26.

★**Conn., Stamford**—Bd. Selectmen let contract grading and paving Hope St., to F. Palmer, Foundview Ave., $197,711. Noted Aug. 12.

N. Y., Brooklyn—E. Riegelmann boro. pres., received bids Aug. 25, regulating and repaving with asphalt, (1 Bedford Ave. from Empire Blvd. to Flatbush Ave., regulating and paving with asphalt, (2 East 7th St. from Foster Ave. to Ave. H, (3) East 10th St. from Ave. L to Ave. M., (4) 20th St. from 80th to 82nd Sts., (5) 56th St. from 14th to 15th Avs., (6) Ralph Ave. from Bway. to Macon St., from Consolidated Constr. Co., 83 Manhattan St., New York City, (1) $237,782, (2) $8,008, (3) $16,159, (4) $13,695, (5) $14,360; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (1) $240,701, (2) $8,773, (3) $15,929, (4) $13 965, (5) $14,158; Uvalde Asphalt Paving Co., 1 Bway., New York City, (1) $247,-965, (2) $9,085, (3) $16,221, (4) $13,682, (5) $14,601; regulating and repaving with Grade 1 granite block, (7) Flatbush Ave. from Park Plaza to point 454 ft. north, from M. J. O'Hara (7) $171,596; F. J. Gallagher, 490 Park Pl., (7) $172,190; Edwards & Flood, Classon Ave. and Lincoln Pl., (7) $173,642; regulating and grading, (8) East 7th St. from Foster Ave. to Ave. H, (9) East 17th St. from Ave. L to Ave. M, (10) Mansfield Pl. from Ave. N to Kings Highway, (11) Warehouse Ave. from Surf Ave. to point 600 ft. south, (12) 20th Ave. from 80th to 82nd Sts., (13) 64th St from New Utrecht to 15th Aves., from Wolfman & Greenbaum, 644 Saratoga Ave., (8) $2,495, (9) $8,988, (10) $9,913, (11) $13,844, (12) $5,345, (13) $1,559; Cassle Bros., (9) $8,209, (10) $10 005; J. J. Guinan, (11) 11,416; L. Mangeri, (10) $11,949, (12) $2,644, (13) $1,503; Caponi Constr. Co., 1320 65th St., (8) $3,342, (9) $9,147 (12) $2,443, (13) $1,676. Noted Aug. 19.

N. Y., Long Island—M. E. Connolly, pres. Queens Boro., received bids Aug. 23, regulating and paving with bituminous macadam (1) Ash St. from Parson to Browne Aves., regulating and repaving with asphaltic concrete, (2) Broadway when and where directed, regulating and grading with granite block, (3) Metropolitan Ave. from Flushing Ave. to Helen St., regulating and repaving with asphalt black, (4) 97th St. from Jamaica to Atlantic Aves., regulating and grading with sheet asphalt, (5) 97th St. from Jamaica to Atlantic Aves., (6) Opdyke St. from Alburtis to Tieman Aves., (7) Stockholm St. from Onderdonk to Seneca Aves., (8) crosswalks from Woodside to Stryker Aves., (9) Grandview Ave. from Stanhope to Metropolitan Aves., from Kennedy & Smith, 94 Main St., Flushing, (1) $7,898, (3) $16,824, (6) $5,350; Tuohy & Upton, 98 Main St., Flushing, (1) $8,074; Pease Bros., 30 Park Row, New York City, (1) $8,316, (3) $20,400, (6) $4,075, (8) $7,304, (9) $11,279; Sicilian Asphalt Paving Co., 41 Park Row, New York City, (2) $225,590, (7) $9,152; Cleveland Trinidad Paving Co., Cleveland, O., (2) $227,-595; (5) $66,055, (7) $9,181; Union Paving Co., Bway. and 112th St., New York City, (2) $253,250, (5) $53,665, (7) $8,412; Welsh Bros., 14 Queens St., Astoria, (3) $13,135, (6) $5,100, (8) $7,243; J. H. Johnson, (3) $18,430; Hastings Paving Co., 25 Broad St., New York City, (4) $97,680; L. J. Rice, (6) $5,095; C. Kurth, (8) $6,576, (9) $12,067; C. A. Myers, Stagg St., Brooklyn (9) $10,655; Scott Bros., (9) $11,042. Noted Aug. 19.

★**N. Y., New York**—H. Bruckner, pres. Bronx Boro., let contract repaving with sheet asphalt in railroad area, when and where directed, to Union Paving Co., Bway. and 112th St., $25,120. Noted Aug. 26.

D. C., Wash.—Dist. Comrs. received bids Aug. 25, grading (1) Argonne Pl., (2) Arkansas Ave., (3) Otis St., (4) Webster St., (5) 6th St., (6) 16th St., (7) alley in block 3243, from G. Hyman, West Virginia Ave. and Morse St., N. E., (1) $.89, (2) $.84, (3) $.77, (4) $.79, (5) $1.75, (6) $.74, (7) $1.50; G. B. Mullin, 3303-11th St., N. W., (1) $.53, (2) $.63, (3) $.69, (4) $.79, (5) $1.75, (6) $1.17, (7) $1.34; W. F. Brenizer Co., 101 New York Ave., N. E., (1) $.75, (2) $.65, (3) $.85, (4) $.67, (5) $1.25, (6) $.62, (7) $1.40.

W. Va., Charleston—Comrs. Kanawha Co. let contract building 4 mi. road from Paint Creek Jct. to Livingston, Sect. 8, to Randish Constr. Co., Princeton, $64,000; 4.1 mi. road from Cabin Creek Jct. to Loudon Dist. line, Sects. 5 and 6, to Towles & Co., Princeton, $179,530; 3 mi. road from Montgomery-west, Sect. 4, to Abbott Bros., Charleston, $27,470. Noted July 22.

★**W. Va., Ripley**—Comrs. Jackson Co. let contract building 1 mi. road from Ravenswood to Silverton, Class A concrete, to Bidding & Carr, Ripley. About $47,000.

★**W. Va., Webster Springs**—Webster Co. let contract grading and draining 3.33 mi. Point Mountain Rd., to H. H. Bruffey, Webster Springs. About $85,400. Noted July 29.

★**S. C., Columbia**—City Council let contract excavating, grading and surfacing 7 blocks North Main St., oil bitulithic, to Atlantic Bitulithic Co., Columbia, $104,824. Noted Aug. 5.

★**Ohio**—State Highway Comm., Columbus, let contracts building roads in following counties:

Ashland Co., Sect. "Haysville" Mansfield-Wooster Rd. 0.624 mi. grading, constructing bridges and culverts and paving with monolithic brick to D. A. Philips & Son, Ashland, $33,125.

Sect. "D" Mansfield-Wooster Rd., 3.509 mi., grading, constructing bridges and culverts and paving with monolithic brick, D. A. Philips & Son, Ashland, $152,221.

Sect. "Jeromeville" Mansfield-Wooster Rd. 0.039 mi., grading, constructing bridges and culverts and paving with monolithic brick, D. A. Philips & Son, Ashland, $7,942.

Lucus Co., Sect. "H-2" Toledo Wauseon Rd., 1.105 mi., grading, constructing bridges and culverts, widening present roadway and surface treatment, Langenderfer, Toledo, $13,282.

Sandusky Co., Sects. "C-1" and "C-2" Fremont-Bowling Green Rd. 2.222 mi., grading, constructing bridges and culverts and paving with brick on concrete foundation, to Modern Constr. Co., Fremont, $84,928.

Sect. "U" Sandusky-Clyde Rd., 0.995 mi. grading, constructing bridges and culverts and paving with rein-con., Lee Bros. & Petticord, Clyde, $41,625.

Vinton Co., Sect. "Hamden" McArthur-Jackson Rd. 0.96 mi., grading, constructing bridges and culverts and paving with brick on rolled base, Anderson & Brown, Chillicothe, $45,663.

Crawford Co., Sect. "A" Galion-Bucyrus Rd., 1.13 mi., widening and resurfacing with bituminous concrete, J. W. Carey, Ada, $32,104.

Huron Co, Sect "C" Monroeville-Chicago Juction Rd. 1.78 mi. grading, widening to 16 feet, repairing foundation and resurfacing with waterbound macadam, Barnes & Tabbert, Rocky Ridge, $23,779.

Lorain Co., Sect. "M" Oberlin-Elyria Rd., 1.72 mi., resurfacing with 2-inch bituminous concrete, Highway Constr. Co., Elyria, $42,-914.

Richmond Co., Sect. "H" Mansfield-Mt. Gilead Rd., 4.36 mi., widening and resurfacing with bituminous macadam, Trumbull Constr. Co., Lorain, $44,074.

Warren Co., Sect. "D" Cincinnati-Chillicothe Rd., 2.99 mi., resurfacing with waterbound macadam, S. B. Craig, Blanchester, $49,546. Noted Aug. 26.

★**O., Cleveland Heights** (Warrensville P. O.)—Village let contracts to Cleveland Trinidad Paving Co., The Arcade, Cleveland, grading, draining, curbing and paving Kensington Rd., cost, $46,756; Kerrwood Rd., $9,773; Maplewood Ave., $19,949; Oakdale Rd., $19,969; Princeton Rd., $45,903; Taylor Rd., $47,500; Briarwood Rd., $19,965; Canterbury Rd., $46,385; Colchester Rd., $13,610; Cottagegrove Drive, $19,969; East Derbyshire Rd., $30,449; Edgewood Rd., $15,231. Noted Aug. 19.

★**Wis., Milwaukee** — Bd. Pub. Wks. let contract paving (1) 47th St. from Meinecke to Center Sts., involving 5,079 sq.yd. asphalt, (2) Richards St. from Franklin to Lake Sts., 5,005 sq.yd. asphalt, (3) alley between 1st, 2nd, Sherman and Reservoir Sts., 968 sq.yd. cement concrete, (4) alley between 5th, 6th, Cherry and Galena Sts. 1,675 sq.yd. cement concrete, (5) alley between 5th, 6th, Walnut and Sherman Sts., 890 sq.yd. cement concrete, (6) alley between 6th, 7th, Walnut and Galena Sts., 997 sq.yd. cement concrete, (7) alley between North Ave., 8th, 9th and Garfield Sts., 638 sq.yd. cement concrete, (8) alley between 8th, 9th, Harmon and Lloyd Sts., 738 sq.yd. cement concrete, to Badger Constr. Co., 97 Wisconsin St., (1) $3.87 per sq.yd.; White Constr. Co., 425 East Water St., (2) $3.90; Froemming Bros., 1336 Humboldt Ave., (3) $2.45, (6) $2.50, (7) $2.50, (8) $2.50; F. Banaszak, 1335 4th Ave., (4) $2.40, (5) $2.45.

★**South Dakota**—State Highway Comm., at Div. office, Pierre, let contract to Pioneer Bridge Co., Mitchell, gravel surfacing 7.76 mi. Mitchell-Plankinton Rd., Federal Aid Project 21, 24 in. wide, Aurora Co., involving 4,200 cu.yd. excav., at $.60 per cu.yd., 11,638 cu.yd. gravel, $1.20, 272 cu.yd. clay binder, $1.50, etc., total $36,469; grading and draining above, 36 ft. wide, involving 43,286 cu.yd. excav., at $.65 per cu.yd. 105 cu.yd. rip rap, $7, 287 cu.yd. structure excav., $3, 167.07 cu.yd. Class A concrete, $36, 85.11 cu.yd. Class B, $36, 17,173 lb. steel reinforcement, $.08, 775 lb. structural steel, $.25, total $43,065.

★**South Dakota**—State Highway Comm. at div. office, Aberdeen, let contract to Stevens Bros., 15 Piedmont Bldg., St. Paul, Minn., grading and draining 12.46 mi. Mound City-Leola-Ipswich Highway, 36 ft. wide, McPherson Co., involving 31 cu.yd. solid rock excav. at $3 per cu.yd., 277 cu.yd. loose rock excav., $2, 72,990 cu.yd. excav., $0.60, 83,620 yd. sta. overhaul, $0.04, 332 cu.yd. structure excav., $3, 400 lin.ft. 15 in. corrugated iron pipe, $2.75, 268 lin.ft. 18 in., $3.50, 152 lin.ft. 24 in., $4.25, 415.31 cu.yd. Class "A" concrete, $40, 74.10 cu.yd. Class "B" concrete, $40, 2 cu.yd. hand rail concrete, $60, 33,880 lb. reinforcing steel, $0.12, clearing, $250, etc., total $76,036; 10.69 mi. Milbank-Webster Rd., 36 ft. wide, Roberts Co., $74,450, to H. C. Hanson, Groton, grading and draining 21.1 mi. Webster-Aberdeen-Mobridge Highway, 36 ft. wide, Brown Co., $128,046.

★**South Dakota**—State Highway Comm., Pierre, let contract grading and draining 5 mi. Ft. Pierre-Philip Rd., Sect. A, Federal Aid Project 1, Stanley Co., to J. G. Jeffries, Ft. Pierre. Work involves 40,580 cu.yd. excav. at $0.65 per cu.yd., 32,310 yd. sta. overhaul, $0.05, 2,650 lin.ft. wooden guard rail, $1.10, 137 cu.yd. structure excav., $2, 62.58 cu.yd. Class "A" concrete, $40, 65.7 cu.yd. Class "B," $40, and 5,196 lb. steel reinforcement, $.572, total $38,031. Noted Aug. 19.

★**North Dakota**—State Highway Comm., Bismarck, let contract grading 20 mi. State Rds. 62 A and 63, 24 ft. wide, McLean Co., to Hohman & Webster, Turtle Lake, $78,876.

★**Missouri**—State Highway Dept., Hermitage, let contracts to Preston Special Rd. Dist., c/o J. W. Luks, Preston, building 4.49 mi. Preston-Collins Rd. (Preston Special Rd. Dist.) Federal Aid Project 46, $26,094; 7.4 mi. Springfield-Sedalia Rd. (Preston Special Rd. Dist.), Federal Aid Project 45, both Hickory Co., $42,010. Noted Aug. 26.

★**Missouri**—State Highway Dept., Clayton, let contracts to St. Louis Co. Court, Clayton, building 1.7 mi. Sect. A, St. Charles Rd., 26½ ft. wide, involving 546 cu.yd. earth excav., 2,288 sq.yd. each plain cement concrete base course and bituminous surface course, specification "C," $9,246; 1¼ mi. Sect. B, St. Charles Rd., 21 ft. wide, 6,482 cu.yd. earth excav., 14,628 sq.yd. monolithic brick pavement, 12.88 cu.yd. Class "B" concrete masonry, 920 lb. reinforcement for concrete masonry, 720 lin.ft. ½ in. premolded expansion joint, $70,006; 1.89 mi. Sect. C, St. Charles Rd., 20 ft. wide, 5,000 cu.yd. earth excav., 1,778 sq.yd. monolithic Hillside brick pavement, 20,712 sq.yd. 2 course plain cement concrete pavement, $86,746; 9¾ mi. Sect. D, St. Charles Rd., 18 ft. wide, 40,255 cu.yd. earth excav., 32,-659 cu.yd. borrow, 95,677 sq.yd. 1 course plain cement concrete pavement, 3,000 sq.yd. monolithic Hillside brick pavement, 3.2 cu.yd. Class "A," 390 cu.yd. Class "B" and 19.3 cu.yd. Class "C" concrete masonry, 31,000 lb. reinforcement for concrete masonry, etc., $414,775; rein.-con. skew deck girder bridge, to have 2 rein.-con. abutments, 2.9 cu.yd. Class "A" and 107 cu.yd. Class "B" concrete, 13,500 lb. reinforcing steel, $4,332; rein.-con. through girder bridge and facing old stone abutments with concrete over Cold Water Creek, 5 cu.yd. Class "A" and 133.3 cu.yd. Class "B" concrete, 13,850 lb. reinforcing steel, $5,142. All above on Federal Aid Project 79, St. Louis Co.

★**Mo., St. Joseph**—Buchanan Co. let contract paving ½ mi. Asylum Rd., 24 ft. wide, in front of State Hospital 2, bituminous macadam, to Land Canstr. Co., Ballinger Bldg., $30,996.

★**Mo., St. Joseph**—Buchanan Co. let contract grading 20.02 mi. St. Joseph-Atchison Rd., State Aid Project 49, to Spitcaufsky Bros., 25th and Baltimore Aves., Kansas City, $126,371. Noted Aug. 5.

Streets and Roads (Continued)

★**Colorado**—State Highway Dept., Denver, let contract paving 2.761 mi. road between Colorado Springs and Broadmoor, 18 ft. wide, 4 ft. shoulders, Federal Aid Project 118, El Paso Co, concrete, to H Shuck, Denver, $126,566. Noted Aug. 12.

★**Idaho**—State Highway Dept., Boise, let contracts to F. Coolidge, Laramie, Wyo., grading and gravel surfacing 9.75 mi. Teton Highway, 16 ft. wide, Federal Aid Project 41, Teton Co., $91,658; 18 mi. Idaho-Central Highway, 16 ft. wide, Federal Aid Project 38, Butte Co., $87,724; 15 mi. Idaho-Pacific Highway, 16 ft. wide, Federal Aid Project 30, Power Co., $108,584; to S. C. Comerford, ranch west of Joplin cemetery, Boise, grading 20 mi. North and South Highway, 24 ft. wide, Federal Aid Project 40, Washington Co., $163,519. Noted Aug. 12.

★**Idaho**—State Highway Dept., Boise, let contract grading and graveling 14 mi. North and South Highway, 16 ft. surfacing, Federal Aid Project 20, Boundary Co., involving 110,000 cu.yd. earth and 400 cu.yd. rock excav., 16,400 cu.yd. gravel, 3,200 ft. corrugated iron pipe, 210 cu.yd. concrete, to Genl. Constr. Co., 444 Peyton Bldg., Spokane, Wash., $137,621; grading and surfacing with crushed rock 12.57 mi. North and South Highway, 16 ft. surfacing, Federal Aid Project 19, Bonner Co., 90,971 cu. yd. earth excav., 19,910 cu.yd. broken stone, 170 cu.yd. concrete, 6,000 lb. metal reinforcement, 1,470 lin.ft. corrugated iron culverts, to Highway Constr., Colfax, Wash., $145,033; grading 4 mi. Lewis and Clark Highway, 24 ft. wide, Federal Aid Project 33, Nez Perce Co., 18,145 cu.yd. earth and 45,432 cu.yd. rock excav., to Hauser Constr. Co., 507 Henry Bldg., Portland, Ore., $79,999; improving 3.7 mi. Idaho-Utah Highway, 16 ft. surfacing, Federal Aid Project 35, Franklin Co., 31,000 cu.yd. earth and 300 cu.yd. rock excav., 3,950 cu.yd. gravel, 678 lin.ft. corrugated iron pipe, to F. Coolidge, Laramie, Wyo., $43,607. Noted Aug. 12.

Idaho—State Highway Dept., Boise, received bids Aug 19, grading and bituminous surfacing (a) 2.7 mi. Yellowstone Park Highway, 16 ft. surfacing, Federal Aid Project 46, (b) 6.46 mi. Roosevelt Highway, 16 ft. surfacing, Federal Aid Project 21, (c) 2.8 mi. Twin Buttes Highway, 16 ft. surfacing, Federal Aid Project 43, all Bonneville Co., from J. C. Maguire, Box 187, Idaho Falls, (a) $104,568, (b) $243,772, (c) $107,870; Phelps Constr. Co., 515 Eccles Bldg., Ogden, Utah, (a) $105,217, (b) $247,605, (c) $113,877; Warren Constr. Co., Journal Bldg., Portland, Ore., (a) $107,337, (b) $253,968, (c) $120,269. Noted Aug. 12.

★**Utah, Lehi**—City let contract paving 1.2 mi. State Rd., 40 ft. wide, 6 in. plain concrete, to Strange & Maguire, Utah Savings & Trust Bldg., Salt Lake City, $81,301.

★**Cal. San Diego**—San Diego Co. let contract building 5.6 mi. San Luis Rey Rd. 2, between Oceanside and Guajome 16 ft. wide, portland cement concrete, to Southwest Paving Co., Citizens Natl. Bank Bldg., Los Angeles, $152,333.

★**Ont., Hamilton**—City let contract for 30,000 sq.yd. bithulithic pavement on 6 in. concrete base to Warren Bituminous Paving Co., McKinnon Bldg., Toronto. About $145,000.

Excavation and Dredging

PROPOSED WORK

Ia., Iowa City—Ditch—Johnson Co. having plans prepared for 23 mi. drainage ditch along Old Mans Creek. About $275,000. A. F. Fisher, Iowa City, engr.

Minn., St. Peter—Drainage—Nicollet Co. rejected bids Aug. 19, building Drainage System 69, involving 17,700 ft. open ditch, 218,020 cu.yd. excav., 230,000 lin.ft. 8-44 in. tile, 14 concrete headwalls, 286 ft. 9-30 in. corrugated culvert pipe, etc. About $285,075. Work will probably be readverticed. Noted Aug. 12.

Ont., London—Drainage—Middlesex Co. plans to drain farm lands. About $75,000. F. W. Farncombe, London, engr.

BIDS DESIRED

N. J., Paterson—Excavation—Until Sept. 14, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, for earth excavating, refilling, trenching and open excavating for 30 in. c. i. pipe in line crossing Passaic River at Lawrence St. Work includes furnishing joint materials, 30 cu.yd. concrete masonry, 200 long ton riprap in place, etc. Cost to exceed $25,000. J. R. Van Duyne, engr.

Mich., Pontiac—Drain—Until Sept. 13, by E. F. Luebke, city clk., building Sect. 1 surface drain (Ferry Farm Surface Drain); advertised in this issue.

Ill., Latham—Drain—Until Sept. 11, by Comrs. Illini Special D.D., at State Bank of Latham, furnishing labor and material building tile drains in Sub-Dist. 6, Macon and Logan Counties. Separate bids will be received on following propositions: (1) furnishing 100 ft. 15-18 in. salt glazed tile, hard burned, and 12,933 ft. 8-18 in. shale tile, hard burned; (2) 100 ft. 15-18 in. salt glazed tile, hard burned and 7,278 ft. 15-18 in. shale tile, hard burned; (3) 5,655 ft. 8-12 in. No. 1 clay tile, hard burned; (4) unloading from cars, immediately upon arrival here, and deliver along line of proposed trench all tile listed in any of above propositions; (5) furnishing all labor and material, except tile, and pay various quantities and sizes of tile listed in propositions 1, 2 and 3, as line of tile may be staked out by engineer, or representatives, and exactly to grade furnished by him; (6) furnish all labor and material and do all that is required by any of 5 preceding propositions. T. P. Gasaway, pres.

Ia., Ft. Dodge—Ditch—Until Sept. 14, by Bd. Supervs. Webster Co., building D. D. 287, Jackson Twp., involving 9,160 ft. 32-34 in. tile, etc. About $32,575. C. A. Snook, aud.

Ia., Ft. Dodge—Drainage—Until Sept. 14, by Bd. Supervs. Webster Co., building D.D. 318, involving 20,887 ft. 6-32 in. tile, etc. About $29,998. C. A. Snook, aud.

Minn., Granite Falls—Ditch—Until Sept. 10, by G. H. Wilson, aud. Yellow Medicine Co., building Judicial Ditch 17, Yellow Medicine and Lyons Counties, involving 28,280 ft. 6-20 in. tile and 4,313 cu. yd. open work. About $25,000.

Minn., Redwood Falls—Ditches—Until Sept. 7, by L. P. Larson, aud., Redwood Co. building (1) Judicial Ditch 25, involving 46,855 ft. 6-24 in. tile, etc., cost $25,819; (2) Ditch 33, 14,200 lin.ft. open ditch 111,850 cu.yd. excav., $18,455, Sect. 2, Branches 2 to 9, 43,750 lin.ft. sewer pipe inlets with c.i. gates, $29,196, Sect. 3, branches 10 and 11, 45,805 ft. 6-26 in. tile, 5 cu.yd. concrete, $31,178; (3) Ditch 49, Sect. 4, Branches 1 to 25, 39,905 ft. 6-18 in. tile, $15,075, Sect. 5, Branch 5, 25,455 ft. 6-26 in. tile, Sect. 6, Branches 6, 7, 17, 21 and 26, 28,495 ft. 6-22 in. tile, $11,444, (4) Ditch 65, 14,200 ft. 6-18 in. tile, 300 lin.ft. open work, $9,793; (5) Ditch 70 31,250 ft. 6-24 in. tile, 30 cu.yd. excav. at outlet, $24,481. B. J. Reynolds, Redwood Falls, engr. for Ditches 25, 33 and 65. G. E. Thorn, Redwood Falls, engr for Ditches 49. F. B. Forbes, Redwood Falls, engr. for Ditch 70.

Ark., Eudora—Drainage—Until Sept. 27, by Comrs. Grand Lake D.D., Chicot Co., building drainage system. R. Meyer, secy.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Minn., Anoka—Ditch**—Anoka Co. let contract repairing Ditch 28, to K. C. Richardson, Anoka, $47,733. Noted Aug. 12.

Minn., Henderson—Ditch—Sibley Co. let contract building Co. Ditch 36, involving 35,511 ft. 5-28 in. tile, 55 cu.yd. open work, etc., to Arlington Cement Stone Wks., Arlington, $41,979. Noted June 10.

Industrial Works

PROPOSED WORK

Me., Bangor—Keyes Fibre Co., Waterville, plans to build papyrus mill, 40 ton capacity, here.

Me., Lewiston—Androscoggin Mills soon let contract building about one hundred 2 story houses, also paving streets and building sidewalks and sewrs, etc. About $1,000,000. Private plans.

N. H., Concord—Boston & Maine R. R., North Sta., soon lets contract building 1 story, rein.-con., brick, concrete and steel engine house and roundhouse, rein.-con. flooring, concrete foundation on Hall St. Private plans.

Mass., Cambridge—University Press, University Rd., plans to build large addition to plant. Architect not selected.

Mass., Lynn—General Electric Co., State St., soon lets contract building story, 180 x 250 ft., brick, steel and concrete factory, rein.-con. flooring, concrete foundation. About $150,000. Private plans.

Mass. Norwood—Holliston Mill, Lenox Ave., soon lets contract building 2 story, 136 x 280 ft., brick and timber mill, and 1 story, 50 x 70 ft., brick boiler house, concrete foundations, at plant. About $300,000. J. W. Beal, 62 Summer St., Boston, archt.

Mass., Worcester—E. T. Chapin, archt., 310 Main St., soon lets contract building 2 story, 60 x 135 ft., brick, rein.-con. and steel addition to garage, rein.-con. flooring, concrete foundation, on Portland St., for H. Glick, 36 Portland St. About $80,000. Noted Aug. 26.

Conn., New Haven—Natl. Folding Box & Paper Co., James St., had plans prepared by Westcott & Mapes, Inc., engrs., 207 Orange St., for 3 story, 60 x 140 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation. About $100,000.

Conn., Norwalk—Westcott & Mapes, Inc., engrs., 207 Orange St., New Haven, soon let contract building 2 story, 20 x 40 ft., rein.-con., steel and brick, electrical plant, rein.-con. flooring, concrete foundation, on State St., for city. About $50,000.

N. Y., Brooklyn—C. A. Benoit, Jerome Ave., soon lets contract building 3 story, rein.-con. and steel factory, rein.-con. flooring, brick foundation, on Ave. I, Sheepshead Bay. About $200,000. Private plans.

N. Y., Brooklyn—Chapman Printing Co., c/o H. J. Nurick, archt. and engr., 772 Bway., having sketches made for 1 story, 100 x 200 ft., rein.-con. and brick plant, rein.-con. flooring, concrete foundation on Morgan Ave. and Grand St. About $55,000.

N. Y., Brooklyn—H. J. Nurick, archt. and engr., 772 Bway., preparing plans for 1 story, 100 x 200 ft., rein.-con., brick and steel factory and warehouse on Glenmore Ave. About $50,000. Owner's name withheld.

Pa., Johnstown—Salem Bros., 312 Washington Ave., plans to build 3 story, 90 x 126 ft. brick factory on Washington Ave. About $150,000.

Pa. Johnstown—See "Buildings."

Pa., Kittanning—Kittanning Iron & Steel Co. having plans prepared by A. G. McKee Co., archts. and engrs., 2422 Euclid Ave., Cleveland, O., for 1 story, brick and steel addition to plant, brick foundation.

Pa., Phila.—Federal Container Co., c/o L. B. Rothchild, archt., 1225 Sansom St., soon lets contract building 1 story, 200 x 300 ft., concrete and brick factory on Thompson and Tioga Sts.

Md., Baltimore—Johns-Hopkins University having plans prepared by Carrere & Hastings, archts. and engrs., 52 Vanderbilt Ave., New York City, for 2 story, brick and stone chemical laboratory, concrete foundation. About $150,000. F. E. Goodnow, pres.

Ky., Louisville—Ewald Iron Co., 224 North Clay St., plans to build addition to foundry. About $3,000,000.

Ky., Louisville—Shatton & Terstegge Co., 15th and Main Sts., plans to build addition to factory. About $100,000.

Ky., Louisville—Shuler Axle Co., Jones and N Sts., plans to build factory. About $1,000,000.

O., Canton—Cummins Storage Co. 400 Walnut Ave. S. E., plans to build 5 story, 133 x 200 ft. storage plant, on Cherry Ave. N. E. and Tuscarawas St. E. About $250,000.

O., Chagrin Falls—E. McGeorge, archt. and engr., 1900 Euclid Ave., Cleveland, opens bids about Sept. 7, building 2 story, 60 x 120 ft., brick and steel addition to paper mill, brick foundation, for Adams Bag Co. About $100,000. Noted July 8.

O., Cleveland—Lake Erie Motor Co., c/o A. Twelvetree, East 46th St. and Carnegie Ave., plans to build 2 story, brick and steel addition to garage. About $100,000. Architect and engineer not selected.

O., Columbus—Capitol City Products Co., West 1st Ave., having plans prepared by Basset & Tresselt, archts., Central Natl. Bank Bldg., for 2 story, 100 x 165 ft. addition to factory. About $100,000.

Industrial Works (Continued)

O., Columbus—Cleveland Trinidad Paving Co., Superior Arcade, Cleveland, having plans prepared for 1 story, 100 x 175 ft. asphalt plant, on Dublin Rd., here. About $60,000. Private plans.

O., Columbus—Cotter Warehouse Co., Schultz Bldg., having plans prepared for 3 story, 72 x 115 ft., concrete addition to warehouse, on Terminal Way. About $50,000. Private plans.

O., Elyria — Reliance Crane Co. having plans prepared by Watson Eng. Co., archts. and engrs., Hippodrome Bldg., Cleveland, for 1 story, 118 x 180 ft., brick and steel factory and power house, brick foundation. About $125,000.

Ind., Indianapolis—Milan Tire & Rubber Co., c/o M. Wilson, Hotel Cleveland, Cleveland, O., plans to build 3 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation. About $350,000. Carter-Richards-Griffiths Co., Illuminating Bldg., Cleveland, archts. and engrs.

Mich., Monroe—Monroe Auto Equipment Co., East 1st St., having plans prepared by R. M. Dunbar, arch., Monroe, for 1 story, 90 x 200 ft., brick, rein.-con. and steel foundry and 60 x 70 ft. core room, on East 1st St.

Wis., Chilton—J. McGrath plans to build 4 story, 40 x 124 ft. brick, rein.-con. and steel wagon factory and 10 x 24 ft. boiler house, rein.-con. flooring, concrete foundation, on North Main St. About $50,000. Architect not selected.

Wis., Milwaukee—C. Keller & Son archts., Majestic Bldg., soon let contract building 2 story, 48 x 100 ft., brick and mill construction factory, concrete foundation on Fond du Lac Ave., for Milwaukee Box Toe Co., 140 Reed St.

Wis., Sheboygan—Juul & Smith, archts., Imig. Bldg., soon let contract building 2 story, 70 x 100 ft., brick, rein.-con. and steel factory, rein.-con. flooring, brick foundation, in Lyman Addition, here, for Columbia Rubber Mills 176 16th St., Milwaukee. Cost between $50,000 and $75,000. E. Juul, 805 North 8th St., engr. Noted Aug. 12.

Wis., Waupaca—Jorgensen Mfg. Co. plans to build 1st unit of plant, 2 story, 60 x 150 ft., brick, rein.-con. and steel, brick foundation, on Main St. Cost between $50,000 and $75,000. Architect not selected, probably private plans.

Minn., Mankato—Overland-Perrin Co. having plans prepared for 2 story, 88 x 157 ft. concrete and steel garage on South Front St. About $100,000.

Minn., Minneapolis — Franklin Co-operative Creamery Co., 26th St. and Franklin Ave., having plans prepared by O. K. Westphal, engr., 319 Kasota Bldg., for 1 story, 64 x 85 ft., rein.-con. and brick creamery. About $50,000.

Minn., Minneapolis—Fruen Cereal Co., 100 Corn Exch. Bldg., having plans prepared by Hickok Constr. Co., archts., 1019 Flour Exchange, for 1 or 2 story, 60 x 60 ft. rein.-con. and brick warehouse and blending plant, on Western and Thomas Aves. About $50,000.

Kan., Dodge City—Midland Ice & Light Co. having plans prepared by Mann & Gerow, archts., 722 Rorabaugh Wiley Bld., Hutchinson, for 1 story, 56 x 62 ft., brick, rein.-con. and steel, boiler house, rein.-con. flooring, concrete foundation. About $50,000.

N. D., Devils Lake—Farmers Cold Storage Co. plans to build creamery and cold storage plant to replace one destroyed by fire. About $100,000. T. Malony, pres. Engineer not selected.

Mo., Kansas City—J. A. Conover, 5th and Wyandotte Sts., having plans prepared by Shepard & Wiser, archts., Long Bldg., for 2 story, 100 x 134 ft., rein.-con. and brick, warehouse, rein.-con. flooring.

Mo., St. Louis—Garrett Wine Co., care of Klipstein & Rathman, archts., Chemical Bldg., had plans prepared for 2 to 4 story, 113 x 301 ft., rein.-con. and brick factory, rein.-con. flooring, on Union and Natl. Blvd. About $450,000.

Okla., Purcell—See "Waterworks."

Utah, Brigham—City election Sept. 10 to vote on $200,000 bonds to build addition to power plant on Canyon St. C. O. Roskelley, Brigham, engr.

Ont., Sudbury — International Nickel Co. plans to build rolling mill. About $3,000,000.

BIDS DESIRED

Fla., Jacksonville—Until Sept. 6, by A. Kahn, archt., Marquette Bldg., Detroit, Mich., building 2 story, 129 x 147 ft., rein.-con. and brick service station, rein.-con. flooring, concrete foundation, on Bay St., here, for Ford Motor Co., Highland Park, Mich.

O., Cleveland—Until Sept. 7, by Vincent Bros. Garage, 1838 Woodlawn Ave., building 1 story, 41 x 110 ft., brick and steel garage, brick foundation, at 12505 Penobscot Ave. About $50,000. H. W. Grieme, Lenox Bldg., archt.

Wis., Butternut—E. Ross receiving bids building 4 story, 60 x 250 ft. veneer plant, brick, rein.-con. and steel, concrete foundation, on Main St. About $100,000.

Wis., Campbellsport—White House Milk Products Co., West Bend, and M. Tullgren & Sons, archts., 425 East Water St., Milwaukee, receiving bids building 1 story, 50 x 100 ft. creamery, brick, rein.-con. and steel, brick foundation. About $100,000. Noted Aug. 5.

Kan., Wakeeney—Until Sept. 17, by city, building (1) power plant and coal bunkers, (2) furnishing all labor, engines, generators, exciters, either new switchboard or moving present one and providing all necessary equipment, (3) furnishing, erecting and testing boilers, boiler feed pumps, feed water heaters, steam and exhaust piping, stokers, etc. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Mo., Kansas City—Until Sept. 6, by Ford Motor Co., Highland Park, Detroit, Mich., building 1 story, 175 x 535 ft., brick and steel, tractor assembly plant, rein.-con. flooring, on 11th and Winchester Sts., here. A. Kahn, 58 Lafayette St., Detroit, archt.

Okla. Oklahoma—Missouri, Kansas & Texas Ry., Parsons, Kan., receiving bids building, rein.-con., brick and steel round house and railway shops, rein.-con. flooring, concrete foundation here. About $65,000. F. H. Ringer, Dallas, Tex., ch. engr.

Ont., London — F. W. Ruggles, Alma, Mich., receiving bids building first unit of concrete and steel factory here. About $2,000,000. Private plans.

Ont., Watford—Until Sept. 11, by Andrews Wire Co., building 2 story, 60 x 150 ft. brick addition to factory. About $50,000. Noted Feb. 20.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Vt., Hartford**—International Paper Co., 45 Milk St., Boston, let contract building 2 story, steel, brick and timber addition to factory, concrete foundation, to H. P. Cummings Constr. Co., 14 Prospect St., Ware, Mass. About $50,000.

★**Mass., Everett** — D. McGonagle, 24 Mystic St., will build 1 story, 90 x 200 ft., concrete and steel garage, rein.-con. flooring, concrete foundation, on Bow St. About $65,000. Work will be done by day labor.

★**R. I., East Warren** (Warren P. O.)—Greyhound Motor Corp., 5 Columbus Circle, New York City, will build 1 story, 100 x 200 ft., steel and stone factory, rein.-con. flooring, rock foundation, here. About $100,000. Work will be done by day labor.

★**R. I., Lonsdale**—Lonsdale Co. let contract constructing several concrete and frame buildings, concrete foundations, to include barn, silo and dairy houses, blacksmith shop and garage, to Cross & Robert, 201 Devonshire St., Boston. About $150,000.

★**Conn., Bridgeport**—Cornwall & Patterson Co., State and Fairfield Aves., let contract building 1 story, 85 x 100 ft., brick and steel addition to plant on Bedford St., to S. W. Hubbell Bldg. Co., 589 Knowlton St. About $60,000.

★**Conn., Middletown** — Goodyear Rubber Co., 114 Church St., let contract building 1 story, rein.-con., brick and steel boiler house, rein.-con. flooring, concrete foundation to D. O'Brien & Sons Co., Inc., 118 Asylum St., Hartford. About $50,000.

★**Conn., New Haven**—United Illuminating Co., 84 Temple St., let contract building 1 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on Grand Ave., to C. W. Murdock, Inc., 185 Church St. About $100,000.

★**Conn., Stamford**—Richards & Co., Inc., Ludlow St., let contract constructing 3 story, 80 x 110 ft. factory, 1 story, 52 x 60 ft., 1 story, 36 x 66 ft. and 1 story, 30 x 200 ft., drying room, lacquer building and machine shop, brick and steel, concrete foundation, on Canal and Ludlow Sts., to J. W. Ferguson Co., 602 West 110th St., New York City. About $75,000.

★**N. Y., Brooklyn**—J. Hochman, c/o H. A. Weinstein, archt. and engr., 375 Fulton St., New York City, will build 1 story, 125 x 180 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Gravesend Ave. About $60,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Jamaica Realty Co., c/o C. Mayer, archt., 110 West 40th St., New York City, let contract building 5 story, 100 x 40 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Jamaica Ave., to T. A. Clarke, 122 Livingston St. About $500,000.

N. Y., Brooklyn—J. F. Trommer Co., Inc., 1632 Bushwick Ave., will build 2 story, 40 x 180 ft., brick and steel garage, rein.-con. flooring, concrete foundation. About $90,000. Work will be done by day labor.

★**N. Y., Brooklyn**—J. Wachtel, 269 Ellery St., will build 4 story, 50 x 100 ft., brick and steel factory, rein.-con. flooring, concrete foundation, on Jefferson St. About $50,000. Work will be done by day labor.

★**N. Y., Groton**—Corona Typewriter Co., Inc., Corona, let contract building 2 story, 60 x 150 ft., concrete and brick addition to factory, rein.-con. flooring, concrete foundation, on Main St., here, to Lowman Constr. Co., 312 Railroad Ave., Elmira. About $100,000.

★**N. Y., New York** — J. P. Jacobs, 326 Audubon Ave., will build 1 story, 100 x 250 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Gerard Ave. and 149th St. About $100,000. Work will be done by day labor.

★**N. J., Camden** — Victory Talking Machine Co., Front and Cooper Sts., let contract building 1 story, 53 x 200 ft., concrete and steel power house, to White Constr. Co., 95 Madison Ave., New York City.

★**N. J., Newark**—A. Fink & Son, 810 Frelinghuysen St., let contract building 3 story, 28 x 180 ft., rein.-con. addition to packing house on Evergreen and Frelinghuysen Sts., to Amer. Concrete Steel Co., 27 Clinton St. About $60,000.

★**N. J., Orange**—Monroe Calculating Machine Co., 49 Mitchell St., let contract building 4 story, 67 x 175 ft. concrete factory to Amer. Concrete Steel Co., 27 Clinton St., Newark.

★**N. J., Trenton**—Mutual Pottery Co., Clinton Ave., let contract constructing plant and power house, to include few buildings, ranging from 1 to 5 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundations to Stone & Webster, 120 Bway., New York City. About $500,000. Noted April 29.

★**Pa., Phila.**—G. Shields, 231 North Juniper St., let contract building 2 story, 95 x 100 ft. brick garage at 212 North Juniper St. to D. Henwood, 717 South 63d St.

★**Pa., Reading** — Reading Steel Casting Co., Tulpehocken St. and Lehigh Valley R.R., let contract building 1 story, rein.-con. and brick machine shop, rein.-con. flooring, brick foundation, to Stone & Webster, 120 Bway., New York City. About $200,000.

★**Md., Baltimore**—Baltimore Buggy Top Co., 107 West Mt. Royal Ave., will build 3 story, 150 x 290 ft. rein.-con. and brick factory, concrete foundation, on Guilford Ave. near Chase St. About $150,000. Work will be done by day labor.

Md., Baltimore—Whitaker Paper Co., 415 Guilford Ave., received low bid building 8 story, 100 x 186 ft., rein.-con. and steel warehouse, concrete foundation, on Guilford Ave., Saratoga and Davis Sts., from B. F. Bennett Building Co., 123 South Howard St. About $1,000,000. Noted Aug. 12.

★**Va., Danville**—Riverside & Dan River Cotton Mills let contract building 1 story, rein.-con., brick and steel power plant, rein.-con. flooring, concrete foundation, to Aberthaw Constr. Co., 27 School St., Boston. About $100,000.

★**O., Bucyrus**—Ohio Crane Co. let contract building 1 story, 60 x 380 ft., brick and steel factory, brick foundation, to Austin Co., 16112 Euclid Ave., Cleveland. About $100,000.

★**O. Cleveland**—Joseph & Feiss Co., West 53d St., let contract building 2 story, 85 x 160 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, at 2150 West 53d St., to Stone-Webster Co., Leader-News Bldg. About $300,000.

Industrial Works (Continued)

★**Ind., Indianapolis**—Westinghouse Lamp Co., Watsessing Ave., Bloomfield, N. J., let contract constructing small building, also 5 story, 100 x 400 ft., rein.-con. and brick factory, rein.-con. flooring, on La Salle St., to D. E. Robinson Co., 125 East 46th St., New York City.

★**Mich., Port Huron**—A. B. Parfait let contract building 2 story, 100 x 300 ft., rein.-con. and brick service station, rein.-con. flooring, concrete foundation, on Military and Chestnut Sts., to A. Schultz, Port Huron. About $125,000. Noted Feb. 5.

★**Wis., Milwaukee**—H. N. Davis Co., 129 Michigan St., let contract building 2 story, 60 x 112 ft., concrete and mill construction factory, concrete foundation, on 32d St., to Riesen Bros., 86 Michigan St. Noted Aug. 12.

★**Wis., Milwaukee**—Milwaukee Bag Co., 206 South Water St., let contract building 1 story, 80 x 120 ft., brick and mill construction addition to factory, to Northern Constr. Co., 445 Milwaukee St. About $50,000.

★**Wis., Milwaukee**—R. B. Williamson, archt., Bway. Bldg., let contract to R. Zils, 294 Grand Ave., Wauwatosa, building 1 story, 80 x 150 ft., concrete and steel garage, rein.-con. flooring, concrete foundation, on Grand Ave., for Packard Motor Car Co., 35th St. and Grand Ave. Noted July 29.

★**Wis., Waukesha**—Standard Oil Co., Waldheim Bldg., Milwaukee, let contract building 1 story, 60 x 120 ft., concrete and brick garage and warehouse, rein.-con. flooring, concrete foundation, to L. Schroeder, 93 7th St., Fond du Lac. About $60,000.

★**Neb., Columbus**—Gottberg Auto Co. let contract building 2 story, 93 x 132 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, to Zuerlein & Woerth, Columbus. About $100,000; cost plus percentage basis. Noted Feb. 26.

★**Neb., Hastings**—Chicago, Burlington & Quincy R.R., Lincoln, will build 1 story, 10 stall, concrete, brick and steel roundhouse here. Private plans. F. T. Darrow, asst. ch. engr. Work will be done by day labor.

★**Mo., St. Louis**—Bridge & Beach Mfg. Co., 503 South 1st St., let contract constructing 17 buildings, to have 268,000 sq.ft. floor space, including rein.-con. warehouse, steel molding room and several small wooden buildings, on Union and Brown Aves., to Fruin Colnon Contg. Co., Merchants Laclede Bldg. About $800,000.

★**Mo., St. Louis**—Magnus Metal Co., 4153 Clayton Ave., let contract building 1 story, brick and steel foundry, to Wimmer Constr. Co., Victorial Bldg. About $60,000.

★**Ark., Judsonia**—Arkansas Hydro-Electric Development Co., Little Rock, will build first unit of hydro-electric plant, on Little Red River, 18 mi. above here, White Co., to include 10,500 hp. plant, 32 x 100 ft., rein.-con. and steel, rein.-con. flooring, rock foundation, cost, $102,000, and 80 x 450 ft. rein.-con. and steel dam, rock foundation, cost $1,100,000. Ultimate plans call for construction of 4 dams. Work will be done by day labor. J. E. Sirrine, Greenville, S. C., consult. engr. Dickinson & Watkins, Little Rock, resident engrs.

★**Ont., London**—Grand Trunk Ry., Dundas St., will build 1 story, 80 x 225 ft. rein.-con. shop on Edgerton St. About $125,000. Work will be done by day labor.

★**Ont., Welland**—J. Stokes Rubber Co., Taylor and Webster Sts., Trenton, N. J., let contract building 1 story, 120 x 160 ft. plant and 50 x 50 ft. power house, brick and timber, on Johns and Bernard Sts. here, to Karne-Smith Co., Broad St. Bank, Trenton, N. J. About $100,000.

Buildings

PROPOSED WORK

Me., Augusta—Hotel—Augusta House, 168 State St., soon lets contract building 3 story, 26 x 130 ft. brick and steel addition, rein.-con. flooring, concrete foundation. Buckee & Savage, Augusta Trust Bldg., archts. Noted Aug. 5.

Me., Deering (Portland P. O.)—Convent, etc., St. Joseph's Convent had plans prepared by O'Connell & Shaw, archts., 18 Boylston St., Boston, Mass., for 1 and 4 story, concrete, brick and steel addition, rein.-con. flooring, concrete foundation. About $300,000.

Me.—Kennebunk—High School—Bd. Educ. plans to build 2 story, brick and steel. About $100,000.

Vt., Newport—High School—Bd. Educ. having plans prepared by Walker & Walker, archts., 101 State St., Montpelier, for 2 story, brick and steel. About $125,000.

Mass., Fall River—School—Supt. Pub. Bldgs. having plans prepared by E. M. Corbett, archt., 70 Bedford St., for 1 story, 8 room, brick, stone and steel, on President Ave. About $125,000. Noted June 17.

Mass., Gardner—Memorial—War Memorial—War Memorial Com. having plans prepared by P. Varney, archt., 25 Exch. St., Lynn, for brick, steel and concrete building, to include auditorium, police station and court house accommodations. About $350,000.

Mass., Northampton—Smith College plans to build rein.-con. and brick laundry on campus. About $100,000. W. M. Neilson, pres. Architect not selected.

Mass., Norton—Dormitory—Cram & Ferguson, archts., 15 Beacon St., Boston, soon let contract building 4 story, 45 x 120 ft., concrete, brick and steel, concrete foundation, on campus, for Wheaton College. About $100,000.

Mass., Pittsfield—Store and Office—Harding & Seaver, archts., 7 North St., soon let contract building 2 story, 42 x 130 ft., brick, concrete and terra cotta, rein.-con. flooring, concrete foundation, on North St. here for W. T. Grant Co., 28 West 23d St., New York City.

Mass., Roxbury (Boston P. O.)—School—Congregation, Adath-Jeshuron, 397 Blue Hill Ave., soon lets contract building 2 story, 70 x 120 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Howland and Warren Sts. About $150,000. Blackwell, Clapp & Whittemore, 20 Beacon St., Boston, archts. Noted Aug. 21.

Mass., Springfield—Church—Trinity Methodist Society, 37 Edwards Ave., plans to build 1 story, brick and stone, on Summer Ave. About $150,000. F. W. Adams, 37 Edwards Ave., pastor. Architect not selected.

Mass., Webster—Store, etc.—M. Holden, 51 Klebart Ave., soon lets contract building 3 story, 100 x 120 ft., brick and steel, concrete foundation, on Main St. About $100,000. Funk & Wilcox, 294 Washington St. Boston, archts. Noted Aug. 26.

R. I., Woonsocket—Lodge, etc.—Bldg. Com. B. P. O. E. plans to construct lodge. About $100,000. Architect not selected.

Conn., Waterbury—Theatre—P. Foti, et al, c/o C. J. Bailey, archt., 95 Bank St., soon lets contract altering and building 1 story, 70 x 110 ft., rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on South Main St. About $150,000. Noted Aug. 12.

N. Y., Albany—School—Bd. Educ. plans to build brick and stone, brick foundation. About $150,000. W. T. Towner, Inc., 366-5th Ave., New York City, archt. and engr.

N. Y., Manhattan Beach (Brooklyn P.O.)—Club—Manhattan Beach Club, 170 Bway., New York City, plans to build 1½ story, stucco and hollow tile, brick foundation on Oriental Blvd., here. About $100,000. J. S. Scully, pres. Architect not selected.

N. Y., New York—Skating House—Dept. Parks, Municipal Bldg., plans to build 1 story, brick, steel, concrete and stone, in Central Park between Bow Ridge and West Drive, near 72d St. About $100,000. J. Burgevis, Municipal Bldg., archt. and engr.

N. Y., Perry—High School—Bd. Educ. having sketches prepared by W. T. Towner, Inc., archt. and engr., 366-5th Ave., New York City, for 2 story, brick and stone, brick foundation. About $125,000.

Pa., Coaldale—High School—Bd. Educ. opens bids about Oct. 10, building concrete and brick high school. About $125,000. J. J. Simpson, Essex Bldg., Newark, N. J., archt. Noted Aug. 19.

Pa., Johnstown—Office, etc.—Knickerbocker Fuel Co., 1st Natl. Bank Bldg., plans to remodel and construct 15 room addition to present office building, also construct concrete and steel garage on Vine St. About $100,000. H. M. Rogers, Trust Bldg., archt.

Pa., Swedeland—School—Upper Merion Twp. Bd. Educ., Norristown, plans to build 1 or 2 story, brick. Cost to exceed $100,000. G. E. Braumbaugh, Real Estate Trust Bldg., Phila., archt.

Pa., Washington—Theatre—S. Kosmos, Pine and Main Sts., having plans prepared by Carlisle & Sharer, archts., Arcade, Pittsburgh, for 2 story, 7[illegible] ft., brick and steel, rein.-con. [illegible] About $175,000.

Md., Baltimore—Church—St. Paul's Lutheran Church, 1605 McCulloh St., [illegible] build church. About $125,000. P. [illegible] man, pastor.

Md., Baltimore—Home—Highland [illegible] 5, I. O. O. F., Eastern Ave. and [illegible] plans to build home at 316-20 South [illegible] land Ave. About $300,000. Archi[illegible] selected.

N. C., Greensboro—Office—J. [illegible] Standard Life Insurance Co. receiv[illegible] in late fall, building 15 story, 50 x [illegible] on Elm and Market Sts. About $2,[illegible] C. C. Hartmann, Greensboro, archt. [illegible] June 24.

Tenn., Nashville—Institution—State Legislature appropriated $100,000 to build institution for feeble-minded.

O., Akron—Theatre and Arcade—C. H. Crane, archt., 2325 Dime Bank Bldg., Detroit, Mich., soon lets contract building 1 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on South Main St., here, for Loew Theatrical Enterprises, 1493 Bway., New York City. About $500,000.

O., Alliance—Memorial—Mt. Union College plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000. Walker & Weeks, 1900 Euclid Ave., Cleveland, archts.

O., Canton—Schools—W. C. Lane, clk. Bd. Educ. soon receives bids building two 2 story, brick schools, one on Belden Ave. N.E., and other on Grace Ave. N.E. About $300,000 each Thayer & Johnson, Cleveland, archts.

O., Cleveland—Bank and Office—Brotherhood of Locomotive Engrs., c/o W. S. Stone, Engrs. Bldg., having plans prepared by Knox & Elliott, archts., 1248 Rockefeller Bldg., for 20 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on St. Clair Ave. and Ontario St. About $5,000,000. Noted Aug. 12.

O., Cleveland—Commercial and Theatre—W. Yamshone, 9905 Ostend Ave., having plans prepared for 3 story, 120 x 200 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 141st St. and St. Clair Ave. About $250,000. Architect's name withheld.

O., Cleveland—Hospital—Babies' and Children's Hospital, c/o A. Garfield, archt., Natl. City Bldg., had plans prepared for 8 story, 60 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 11020 Euclid Ave. About $500,000.

O., Cleveland—Pharmacy—Western Reserve University, c/o E. Spease, dean, plan to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Adelbert Rd. and Euclid Ave. About $200,000. Architect not selected.

O., Cleveland—School—Bd. Educ., East 6th St. and Backwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., for 2 story school for crippled children, rein. con., brick and steel, rein.-con. flooring, concrete foundation, on East 116th St. and Buckeye Ave. About $500,000. F. G. Hogan, clk. Noted June 10.

O., Cleveland—Theatre and Office—B. F. Keith Theatre Co., 1564 Bway., New York City, plans to build rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here. About $1,000,000. Rapp & Rapp, 190 North State St., Chicago, Ill., archts.

O., East Cleveland (Cleveland P. O.)—Home—The A. M. McGregor Home, c/o A. T. Huntley, Lee Rd., plans to build 2 story, brick and steel addition, brick and concrete foundation. About $200,000. Architect not selected.

O., Lorain—High School—Bd. Educ. having plans prepared by F. C. Warner, archt., Hippodrome Annex Bldg., Cleveland, for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 31st St. and Seneca Ave. About $300,000. J. Bruell, clk.

O., Toledo—Schools—Bd. Educ. plans to issue $2,000,000 bonds within next year, to build 5 schools in various sections of city. W. C. Carr, pres.

O., Zanesville—Clubhouse—Amer. Rolling Mill Co., Linden Ave., rejected bids received Aug. 2, building 3 story, rein. con., brick and steel, rein. con. flooring, concrete foundation. About 200,000. Project postponed. Noted Aug. 19.

Buildings (Continued)

Ind., Evansville — Hospital — Deaconess Hospital had plans prepared by H. E. Boyle & archts., Furniture Bldg., for 3 story, 50 room, 53 x 121 ft. addition, rein.-con. and brick, rein.-con. floorings. About $200,000.

Ind., Indianapolis — School — Twp. Trustees, Saks Bldg., had plans prepared by E. J. Ostling, archt., Indianapolis, for 2 story, 75 x 118 ft., brick and stone, on Yoke St. About $100,000.

Ind., Lafayette—Office—Brotherhood of Painters, Decorators & Paperhangers plans to build 3 or 4 story, on 4th and Ferry Sts. About $120,000. Architect not selected.

Ind., Marion — Administration — Marion Pitry. & Machine Co. had plans prepared for 2 story, 100 x 200 ft., rein.-con. and brick. About $100,000. Private plans.

Mich., Detroit—Memorial—City Memorial Com. having estimates made by Architects' Assn. for 2 story, 250 x 600 ft. rein.-con., brick, steel and stone, on John R St. J. A. Kronk, chn. Architect not selected.

Ill., New Rochelle—School—N. S. Spencer & Son, archts., 37 West Van Buren St., Chicago, soon receives bids building 3 story, 150 x 200 ft., brick and steel, for Bd. Educ. Bids are now being received for concrete foundation for above.

Wis., Bruce—Bank and Theatre—P. S. Krantz plans to build 2 story, 60 x 250 ft., brick, rein.-con. and steel, brick foundation, on Main St. About $100,000. Architect not selected.

Wis., Janesville—Theatre—T. Saxe, 160 5th St., Milwaukee, having preliminary plans prepared by M. Tullgren & Sons, archts., 425 East Water St., Milwaukee, for 1 story, 80 x 198 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on West Milwaukee St., here. About $250,000.

Wis., Milwaukee — Temple — McKinley Lodge, F. & A. M., 872½ 39th St., had plans prepared by Buemming & Guth, archts., 521 Jackson St., for 2 story, 110 x 136 ft., brick, concrete foundation, on Lisbon Ave. About $100,000.

Ia., Ledyard—School—Bd. Educ. plans to build 2 story school. About $110,000. Kieffer & Jones, 209 Masonic Bldg., Des Moines, archts.

Minn., Chisholm—Municipal—City Council opens bids about Oct. 15, building 2 story, 195 x 300 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Main St. A. Puck, 801 Torrey Bldg., Duluth, archt. and engr.

Minn., Duluth—Church—T. D. Whittles, chn. Bldg. Comn., 2809 West 3rd St., opens bids about Oct. 1, building 2 story, 70 x 135 ft., rein.-con. brick and steel, rein.-con. flooring, concrete foundation on West 2nd St., for 2nd Presbyterian Church. About $125,000.

Kan., Hoxie—School—Bd. Educ. having plans prepared by Smith, Beattie & Co., archts., Nelson Bldg., Hutchinson, for 2 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $100,000.

Neb., Dannebrog—School — Bd. Educ. plans to build 2 story, 53 x 90 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $100,000. W. Mampe, Shiedly Bldg., Kansas City, Mo., archt.

Neb., Lynch — Sanitarium — Benedictine Sisters plan to build sanitarium. About $100,000. Architect not selected.

S. D., Winner—School—Bd. Educ. had plans prepared by Grabe & Hellenburg, archts., Columbus, Neb., for 2 story, 57 x 68 ft. rein.-con. brick and steel, rein.-con. flooring, concrete foundation. About $110,000.

Tex., El Paso — Exchange—Tri-State Telephone Co., 510 Texas St., preparing plans for branch exchange. About $500,000.

Ont., Toronto—Pavilion—Toronto Harbor Comn., Harbor Comn. Bldg., had plans prepared for 1 story 100 x 400 ft. rein.-con. bathing pavilion. About $250,000. Private plans.

Ont., St. Thomas—Temple—St. Thomas Labor Temple Assn. having plans prepared and soon receives bids building 3 story, brick, concrete foundation, on Talbot St. About $150,000. N. R. Darrach, St. Thomas, archt.

BIDS DESIRED

Mass., Athol—Hall—Until Sept. 10, by F. A. Ball, chn., Memorial Bldg. Comn., building 2 story, 50 x 125 ft. with 50 x 80 ft. ell, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Main St. About $300,000. Noted Aug. 19.

N. Y., New York—School—Until Sept. 9, by C. B. J. Snyder, supt. school bldgs., Municipal Bldg., building P. S. 57, on Curtis and Jerome Aves., Queens Boro., for Bd. Educ., 500 Park Ave.

Pa., Erie—High School—Until Sept. 14, by Bd. Educ., building brick high school, rein.-con. flooring, W. B. Ittner, Bd. Educ. Bldg., St. Louis, Mo., archt.

Pa., Meadville—Theatre—Meadville Theatre Corp. receiving bids building 1 story, and 78 x 143 ft., 23 x 58 ft., brick and steel, rein.-con. flooring, on Park Ave. and Chestnut St. About $250,000. H. S. Blair, Vandergrift Bldg., Pittsburgh, archt.

Pa., Phila. — Synagogue — I. W. Levin, archt., 536 Ritmer St., receiving bids building 3 story, 80 x 100 ft., brick and terra cotta, on Porter and 8th St., for Congregation Shaare Sigah. About $100,000.

Pa., Pittsburgh — Sales — E. P. Mellen, archt., Vanderbilt Bldg., New York City, receiving bids building 2 story, rein.-con., on Friendship and Euclid Aves., here. About $100,000. Owner's name withheld.

Md., Baltimore — Theatre — Douglas Amusement Co., c/o Lachman & Murphy, archts. and engrs., Drexel Bldg., Phila., receiving bids building 1 story, 70 x 145 ft., brick, steel, stone and concrete, at 1317-1325 North Pennsylvania Ave. here. About $100,000.

O., Springfield—High School—Until Sept. 21, by Bd. Educ. building 2 story, 110 x 128 ft. brick and concrete on Maiden Lane. About $225,000. O. D. Howard, 8 East Broad St., Columbus, archt. Noted July 1.

Ind., Vincennes—Hospital—Until Sept. 8, by Good Samaritan Hospital, building two 2 story, brick and stone. About $142,000. J. B. Bayard, archt.

Mich., Grand Rapids—Hospital—Osgood & Osgood, archts., Grand Rapids, receiving bids building 2 story, 42 x 146 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, for Kent Co. About $175,000.

Ill., Granite City—**High School**—Until Oct. 1, by W. B. Ittner, archt. and engr., Bd. Educ. Bldg., St. Louis, Mo., building 3 story, brick, rein.-con. flooring, for Bd. Educ. About $225,000. Noted Aug. 5.

Wis., Adams — Church — St. Joseph Church receiving bids building 2 story, 60 x 180 ft., brick, rein.-con. and steel, concrete foundation, on Main St. About $100,000. E. Brielmaier & Sons Co., University Bldg., Milwaukee, archts.

Wis., Fond du Lac—School—Until Sept. 15, by Bd. Educ., Building 3 story, 66 x 260 ft. and 100 x 200 ft., high and vocational schools, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $350,000. A. Hunter, secy. Childs & Smith, 64 East Van Buren St., Chicago, archts. Noted June 10.

Wis., Milwaukee—Office, etc.—A. D. Koch, archt., Wells Bldg., receiving bids furnishing concrete for foundation and constructing 1 story of 4 story, 75 x 100 ft., brick, rein.-con. and steel office and service building, rein.-con. flooring, concrete foundation, on 4th and Sycamore Sts., for Standard Oil Co., Brumder Bldg. Total cost $300,000. Noted Feb. 5.

Ia., Wiota—School—Until Sept. 22, by Bd. Educ., building 1 story, 60 x 70 ft., brick. About $100,000. Porter & Schreiber, Peters Trust Bldg., Omaha, Neb., archts. Noted March 25.

Kan., Kansas City—Passenger Station—Until Sept. 8, by Kansas City Terminal Ry., Union Sta., Kansas City, Mo., building 1 story, 34 x 141 ft., rein.-con., terra cotta and brick, rein.-con. flooring, also 23 x 34 ft. head house, 50 ft. high. About $150,000. Rose & Peterson, Barker Bldg., archts. J. V. Hanna, Union Sta., Kansas City, Mo., engr. Noted Aug. 12.

Neb., Hastings—Memorial—Hastings College receiving bids building 2 story, 102 x 170 ft. rein.-con., brick and steel. About $150,000. Miller, Fulenwider & Dowling, 6 North Michigan Ave., Chicago, archts.

S. D., Huron—Court House—Until Oct. 12, by Beadle Co., building 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $400,000. W. E. Hulse & Co., Sioux City, Ia., archts. Noted Feb. 19.

N. D., Marmarth—High School—Until Sept. 14 (change of date) by H. H. Bond, clk. Bd. Educ. building 2 story, 61 x 91 ft. rein.-con. brick and tile. About $100,000. Keith & Kurke, Fargo, archts. Noted Aug. 19.

Col., Haxton—Church—Until Sept. 7, by A. Eitelgeorge, minister Methodist Episcopal Community Church, building 2 story, brick and steel, with 60 ft. tower, to have 2 wings, one 50 x 83 ft. and other 50 x 103 ft. About $100,000. Wilson & Wilson, Commonwealth Bldgs., Denver, archts.

Ont., London—Hospital—Until Sept. 6, by Watt & Blackwell, archts., Bank of Toronto Bldg., constructing 3 story, 55 x 165 ft., concrete and brick, on Ottaway Ave., for Daughters of the Empire. About $250,000.

Ont., London—Hotel—Until Sept. 11, by Benson Hynes Hotel Co., building 16 story, brick and steel, on Richmond St. About $1,500,000. Ross & McDonald, 1 Belmont St., Montreal, Que., archts. Noted July 22.

Ont., London—Nurses' Home—H. C. McBride, archt., Molsons Bank Bldg., receiving bids building 3 story, 60 x 80 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, for Westminster Psychopathic Hospital. About $125,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., Portsmouth**—Hospital—Portsmouth Hospital, Junkins Ave., let contract building 3 story, brick and rein.-con., rein.-con. flooring, concrete foundation, to C. E. Currier Co., 10 High St., Boston. About $225,000. Noted May 13.

★**Mass., Boston**—Office—Thorndike Estate, 722 Tremont Bldg., let contract converting Hotel Thorndike (6 story) into office building, to J. W. Drake, 226 Border St., East Boston. About $100,000.

★**Mass., Brockton**—Theatre—A. H. Bowditch, archt., 44 Bromfield St., Boston, let contract, to W. J. Sinnott, 68 Devonshire St., Boston, building 2 story, 140 x 190 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Main St., here, for Breyfus & Bardol, 17 Milk St., Boston. About $300,000. Noted July 22.

★**Mass., Brookline** (Boston P.O.)—Hospital—Peter Bent Brigham Hospital, Huntington Ave., let contract building 1 story, 40 x 140 ft., brick, concrete and steel addition to Ward Bldg. "A", rein.-con. flooring, concrete foundation, on Huntington Ave., to Whidden-Beekman Co., 100 Boylston St., Boston. Noted Aug. 12.

★**Mass., Wareham**—School—Bd. Educ. let contract building 1 story, 100 x 160 ft., tile, brick and steel, concrete foundation, on Highland and Gibbs St., to Schwarz Bros. Co., 95 River St., Bridgeport, Conn. About $100,000.

★**Conn., Wallingford** — School — Choate School for Boys let contract building 3 story, brick, rein.-con. and steel addition, rein.-con. flooring, concrete foundation, to C. F. Wooding Co., Wallace Ave. About $150,000. Noted April 8.

★**N. Y., New York**—Loft—Herald Square Printing Co., c/o H. C. Volz, archt. and engr., 373 Fulton St., Brooklyn, will build 8 story, brick, stone and steel. Work will be done by day labor under supervision of archt.

★**N. Y., New York**—Office—R. Dunther and R. Law, Inc., 25 Broad St., let contract building 5 story, 40 x 50 ft., brick, steel and stone, at 131 Nassau St., to R. Deeves & Bro., 103 Park Ave. About $100,000. Noted June 10.

★**N. Y., New York**—Office—Lawyers Mortgage Co., 59 Liberty St., let contract building brick, steel and stone, concrete foundation, on Maiden Lane and Nassau St., to Cauldwell-Wingate Co., 381 4th Ave. About $1,500,000. Noted April 15.

★**N. Y., New York**—Theatre—M. Klaw, Commercial Trust Bldg., let contract building brick and stone, brick foundation, on 45th St. between Bway. and 8th Ave., to Jardin Co., Inc., 507 5th Ave. About $300,000. Noted June 10.

N. Y., New York—Theatre and Showroom—Manbridge Realty Co., care of Gronenberg & Leuchtag, archts. and engrs., 303-5th Ave., will build 2 story, 100 x 115 ft., brick and stone, on East Bway., Forsyth, Market and Henry Sts. About $250,000. Work will be done by day labor.

N. Y., Syracuse—Sanatorium Pavilion—Onondaga Co. received bids constructing (1) childrens building (2) adults building at Onondaga Sanatorium, Hoppers Glen, (a) general contract (b) heating plant, from O'Brien Constr. Co., McCarthy Bldg., (1a) $115,000, (2a) $96,691; J. W. Dawson, Union Bldg., (1a) $114,000, (2a) $91,960; Shane Constr. Co., Herald Bldg., (1a) $111,534, (2a) $91,118; E. Joy, 133 Market St., (1b) $25,373, (2b) $12,778, E. Bates, 228

Buildings (Continued)

West Water St., (1b) $23,404 (2b) $9,550; W. B. Goldie, 274 James St., (1b) $20,174, (2b) $10,314; J. P. Sheehan Co., (1b) $20,548, (2b) $9,290.

★**Pa., McKeesport** — Bank — First Natl. Bank let contract building 2 story, 60 x 77 ft., brick, concrete and steel, rein.-con. flooring, on 5th Av. and Walnut St., to Strandberg Bros., 19 South La Salle St., Chicago. About $100,000. Noted July 17.

★**Pa., Woodlawn**—Theatre and Store—E. Harvey let contract building 1 and 3 story, 75 x 150 ft., rein.-con. and steel, to E. E. Shaffer, New Brighton. About $125,000. Noted May 6.

★**Md., Baltimore**—Office—Merchants & Manufacturers Assn. 109 East Redwood St., let contract converting 6 story, steel, hollow tile and marble warehouse into office, at 20-24 Light St., to Frainie Bros. & Haigley, 18 Clay St. About $100,000. Noted May 20.

★**Fla., Jacksonville**—Bank—Atlantic Natl. Bank, 121 West Forsyth St., let contract building 1 story, 50 x 100 ft. brick and stone, concrete foundation, to W. P. Richardson, Jacksonville. About $100,000. Noted May 1, 1919.

★**Ala., Birmingham**—Church — Norwood Methodist Church will build 114 x 137 ft. brick, on 31st St. and 13th Ave. About $100,000. Work will be done by day labor under supervision of C. T. Holmes, supt.

★**O., Cleveland** — Commercial — K. V. Painter, 6523 Euclid Ave., let contract building 8 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 30th St. and Euclid Ave., to A. W. Kilbourne Co., 6523 Euclid Ave. About $1,000,000.

★**O., Cleveland**—Hall—City let contract supplying brick, cement, lime and mortar, for 4 story, 180 x 420 ft., fireproof (now under construction), on East 6th St. and St. Clair Ave., to Cleveland Builders' Supply & Brick Co., Leader-News Bldg. About $223,000. Noted April 22.

★**O., Columbus** — Hospital — Mercy Hospital Assn., 1430 South High St., let contract building 3 story, 100 x 130 ft. addition, to E. K. Hibbs Eng. & Constr. Co., 1153 Neil Ave. About $100,000; cost plus percentage basis.

★**O., Columbus**—School—Bd. Educ. let contract building 2 story, 110 x 190 ft. school, on Sullivant Ave., to E. H. Latham & Co., 60 East Broad St., $226,879. Former contract rescinded. Noted Aug. 5.

O., Lorain—School—Bd. Educ. received bids Aug. 11, building 1 story, 12 room, rein. con., brick and steel, rein. con. flooring, concrete foundation, on 4th St. and Hamilton Ave., from C. Peterson Co., 4500 Euclid Ave., Cleveland, $214,000; G. Kratt, Lorain, $218,522. Noted Jan. 15.

★**Ind., Evansville**—Hotel and Theatre—Standard Realty Co. let contract building 3 story, 110 x 180 ft., rein.-con. and brick, rein.-con. flooring, on 6th and Main Sts., to M. J. Hoffman Constr. Co., Furniture Bldg. About $692,000. Noted Aug. 5.

★**Ind., Evansville** — Theatre — Vendome Theatre Co. let contract building 2 story, 145 x 190 ft. rein.-con., brick and steel, rein.-con. flooring, on 3rd and Sycamore Sts., to M. J. Huffman Constr. Co., Furniture Bldg. Noted July 22.

★**Ill., Mt. Carmel**—Bank—C. Shopbell & Co., archts., Furniture Bldg., Evansville, Ind., let contract to Barbour Constr. Co., Louisville, Ky., building 2 story, 45 x 75 ft., brick and stone, for 1st Natl. Bank here. About $100,000. Noted April 22.

★**Wis., Milwaukee** — Hospital—E. Brielmaier & Sons, archts., University Bldg., let contract to S. M. Siesel, 105 Wells St., building 5 story, rein.-con. and brick addition, rein.-con. flooring, concrete foundation, for Mt. Sinai Hospital, 246 12th St. About $300,000. Noted June 17.

★**Wis., Racine**—Isolation Hospital—City let contract building 2 story, concrete and brick, rein.-con. flooring, concrete foundation, to A. C. Kappel, 800 6th St., $98,178 Noted July 22.

★**Minn., Minneapolis**—School—Bd. Educ let general contract building Eugene Field School, 2 story, 60 x 90 ft., rein.-con. and brick, on 46th Ave. between 4th and 5th Aves., to F. N. Hegg, 2942 Nicollet Ave., $76,995; heating, plumbing and ventilating, to Western Heating Co., 13 East 36th St., $21,453.

★**Minn., St. Cloud**—School—Bd. Educ. let general contract building 2 story, to A. G. Wahl, St. Cloud, $91,532; heating and plumbing to J. P. Bisenius, St. Cloud, $26,413.

★**Neb., Columbus** — Courthouse — Bd. Supervs. Platte Co. will build 4 story, 70 x 106 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $220,000. Work will be done by day labor under supervision of H. Woerth, supt.

★**Mo., St. Louis**—Schools—Bd. Educ. let contracts building J. J. Roe and W. Stix Schools, each 3 story, brick, rein.-con. flooring, to Kellerman Constr. Co., Victoria Bldg., $298,458 and $437,799 respectively.

★**Mo., St. Louis**—School—Bd. Educ. let contract building 3 story, brick, rein.-con. flooring, to E. C. Gerhard Bldg. Co., Post-Dispatch Bldg., $280,268.

★**Mo., St. Louis**—School—Bd. Educ. let contract building 3 story, 60 x 200 ft., brick, rein.-con. flooring, on Landsdowne Ave., to Murch Bros. Constr. Co., Ry. Exch. Bldg., $328,930.

★**Col., Glenwood Springs**—School—School Dist. let general contract building 2 story, 61 x 184 ft. school, to Windsor & Lund Contg. Co., Denver, $148,500. Noted June 3.

★**Ont., London** — Hotel — Benson-Hines Hotel Co., let contract building 11 story, concrete, brick and steel, concrete foundation, on Richmond St., to G. A. Fuller Co., 45 St. Alexander St., Montreal, Que. About $1,500,000. Noted July 22.

★**Ont., Toronto**—Business—E. N. Bartlett, Victoria Blk., let general contract building 3 story, 80 x 100 ft. concrete, brick and steel, concrete foundation, to J. V. Gray Constr. Co., 541 Queen St. E.; steel, to Dominion Bridge Co., Imperial Life Bldg. Total cost $125,000.

Federal Government Work

PROPOSED WORK

Mass., Chelsea—Alterations and Additions to Main Building, etc.—Spec. 4273—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to alter and construct addition to main building and heating plant, here.

Mass., Chelsea—Lighting—Spec. 4281—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install lights in buildings, here.

R. I., Ft. Adams—Ordnance Machine Shop—Constr. Div., U. S. Army, Wash., D. C., plans to build, here. Bids will be opened by constructing quartermaster at army post.

N. Y., Brooklyn—Remodeling Building—Spec. 4282—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to remodel Bldg. "A", here.

N. Y., Ft. Wadsworth—Stable—Constr. Div., U. S. Army, Wash., D. C., plans to build 26 x 100 ft., here. Bids will be opened by constructing quartermaster at army post.

Md., Annapolis—Boiler—Spec. 4269—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install, here.

D. C., Wash.—Storehouse—Spec. 4155—Bureau Yards & Docks, Navy Dept., soon receives bids building for combustibles; $10 deposit required for plans and spec. Noted April

Va., Ft. Monroe—Office, etc.—Constr. Div., U. S. Army, Wash., D. C., plans to build 1 story addition to office and new booster pump house, here. Bids will be opened by constructing quartermaster at army post.

Va., Hampton Roads—Distilling Plant—Spec. 4272—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build here.

Va., Quantico—Water Supply Main—Spec. 4200—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids building 16 in. c.i. water supply main, at Marine Barracks here; $10 deposit required for plans and spec. Noted May 27.

S. C., Ft. Moultrie—Machine Shop—Constr. Div., War Dept., Wash., D. C., plans to build addition, here. Bids will be opened by constructing quartermaster at army post.

Fla., Key West—Distillation Plant—Spec. 4268—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Mich., Battle Creek — Remodeling Post Office—Treas. Dept., Wash., D. C., rejected only bid received July 30, remodeling, here. Noted Aug. 5.

Col., Ft. Lyon—Gymnasium—Spec. 4275—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Cal., Mare Island—Remodeling Building—Spec. 4276—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to remodel Bldg. 52, here.

Cal., San Diego—Dredging—Spec. 4287—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans, here.

Cal., San Diego—Fire Alarm System—Spec. 4288—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install here.

Cal., San Diego—Quartermaster House—Spec. 4280—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

H. T. Pearl Harbor—Improving Boiler Plant—Spec. 4270—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to improve, here.

BIDS DESIRED

N. C., Wilmington—Sound Deadening Wall and Ceiling Covering—Until Sept. 21, by Treas. Dept., Wash., D. C., furnishing and installing in court room in customhouse and appraisers stores, here.

La., New Orleans—Refrigerating Machine—Until Sept. 23, by Treas. Dept., Wash., D. C., installing at Post Office and Courthouse, here. J. A. Wetmore, superv. archt.

Ill., Freeport—Remodeling Post Office and Courthouse—Until Sept. 15, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

Cal., Mare Island—Mechanic Shop, etc.—Spec. 4127—Until Sept. 11, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building mechanic shop, filling house, shell house and magazine building, here.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Augusta**—Altering Post Office and Courthouse—Treas. Dept., Wash., D. C., let contract altering, here, to G. E. Wright Inc., 1461 Monadnock Blk., Chicago $7,580. Noted Aug. 12.

★**N. H., Portsmouth**—Boiler and Stokers—Spec. 4124—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract removing from old hickory powder plant, Jacksonville, Tenn., and re-erecting same, at Navy Yard, here, to C. J. Eisinger, 141 7th Ave., Brooklyn, N. Y., $33,136 (150 days). Noted Aug. 19.

★**N. J., Jersey City**—Remodeling Post Office—Treas. Dept., Wash., D. C., let contract remodeling, here, to D. W. Conner, 15 West 91st St., New York City, $19,000. Noted Aug. 12.

★**D. C., Wash.**—Repairing Locomotive—U. S. Engr. Office, War Dept., let contract repairing, here, to Contractors Serv. Co., 50 Church St., New York City, $6,800.

D. C., Wash.—Repairing Wharf and Slips—Spec. 4260—Bureau Yards & Docks, Navy Dept., received only bid Aug. 25, repairing Wharf 3 and Slips 2 and 3, from L. A. Clark & Son, 10th St. and Wharf N. W., $4,400 (30 days). Noted Aug. 19.

Va., Roanoke—Remodeling Post Office and Courthouse—Treas. Dept., Wash., D. C., received bids Aug. 27, remodeling here, from E. E. Garber, Bethlehem, Pa., $2,000; D. J. Phipps, Roanoke, $2,325; Eubank & Caldwell, Roanoke, $2,711. Noted Aug. 5.

O., Fairport—Station and Accessories—Treas. Dept., Wash., D. C., received bids Aug. 25, bui'ding at Coast Guard Sta. 238, here, from W. F. Martens, 53 Franklin St., Rochester, N. Y., $24,755 (120 days); King Lumber Co., Charlottesville, Va., $29,700. Noted Aug. 5.

Ind., South Bend—Remodeling Post Office—Treas. Dept., Wash., D. C., received bids Aug. 23, remodeling here, from G. E. Wright, Inc., 1461 Monadnock Blk., Chicago, $9,889; King Lumber Co., Charlottesville, Va., $11,858; Theriault Constr. Co., 534 East Johnson St., Phila., $12,282. Noted Aug. 5.

★**Wyoming—Road Work**—J. S. Bright, dist. engr., Bureau Pub. Rds., 301 Custom House, Bldg., Denver, Col., let contract building 4 mi. Encampment-Slater Rd., Carbon Co., to Ames & Braisted, Laramie, $25,000; 3 mi. Centennial-Brooklyn Lake Rd., Albany Co., to Stenson & Swanson, Denver, $25,000.

Tex., Del Rio—Sewage Ejector—Treas. Dept., Wash., D. C., received bids Aug. 27, installing in Post Office and Courthouse, here, from C. J. Gleason, Augusta, Ga., $4,935; J. L. Powers, Bennettsville, S. C., $6,041. Noted Aug. 12.

Federal Government Work (Continued)

★N. M., Ft. Stanton—Boiler and System of Piping—Treas. Dept., Wash., D. C., let contract installing at U. S. Sanatorium, here, to C. Irving, 1525 Larimer St., Denver, Col., $12,584.

Cal., San Diego—Cold Storage Plant—Pub. Wks. Office received bids building at Marine Base, here, from C. M. Cay Co., 2650 Sante Fe Ave., Los Angeles, $24,000; T. Haverty Co., 801 Maple St., Los Angeles, $44,000.

★H. T. Pearl Harbor—Temporary Storehouse—Spec 4229—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to Hawaiian Constr. Co., Pearl Harbor, $44,937 (100 days). Noted July 8.

Miscellaneous

PROPOSED WORK

Athletic Field—Cambridge, Mass.—Massachusetts Institute of Technology plans to build athletic field north of Riverbank Court. About $100,000. Architect not selected.

Granite Gateway, etc.—Cambridge, Mass.—Mt. Auburn Cemetery, 199 Washington St., Boston, having plans prepared for granite gateway on Mt. Auburn St. entrance to cemetery, here, also 1 story, 25 x 45 ft. rest house. Cost to exceed $25,000. R. H. Doone, 75 Newbury St. Boston, archt.

Distributing System — Carey, O. — City plans to rebuild distributing system. About $90,000. Froehlich & Emery, 2d Natl. Bank Bldg., Toledo, engrs.

Electric Equipment—Cleveland, O.—City plans to purchase wire, cables, transformers, equipment, meters and service equipment, for municipal light plant. About $100,000. G. Beckwith, City Hall, engr.

Dock — Superior, Wis. — Minneapolis, St. Paul & Sault Ste. Marie R.R., Soo Line Bldg., Minneapolis, having plans prepared for 1,250 ft. concrete and steel dock, 500 ft. wide across face, here. About $1,000,000. E. A. Whitman, Minneapolis, ch. engr.

Pier—San Diego, Cal.—Common Council retained Barnard & Leeds, consult. engrs., Central Bldg., Los Angeles, to prepare plans for new municipal pier of mole type. Bonds voted for project.

Tanks—Montreal, Que.—Montreal Locomotive Wks., Dominion Express Bldg., St. James St., plans to erect two 30 x 30 ft. tanks at 3513 Notre Dame St., E. About $40,000.

Pumps—New Toronto, Ont.—Town having plans prepared by E. A. James Co., Ltd., engrs., 36 Toronto St., Toronto, for 2 centrifugal 3 stage pumps 320 ft. head, with 2,000 gal. per minute capacity, electrically driven. About $20,000.

Harbor Improvements—Port Stanley, Ont.—Dept. Pub. Wks., Western Blk., Ottawa, having plans prepared by J. B. Hunter, engr., Ottawa, for harbor improvements and new swing bridge, here. About $350,000. Noted July 22.

BIDS DESIRED

Sewer Cleaner—Lockport, N. Y.—Until Sept. 20, by J. L. Greenman, clk., City Bldg., purchasing small sewer cleaner; advertised in this issue.

Bulkheads and Jetties—New York, N. Y.—Until Sept. 9, by Park Bd., at office of Dept. Parks, Municipal Bldg., furnishing labor and material repairing bulkheads and jetties at Jacob Riis Park, Neponsit, Queens Boro.

Coal Conveyor—New York, N. Y.—Until Sept. 9, by Dept. Pub. Welfare, Municipal Bldg., furnishing and building in power house at Seaview Hospital, Richmond Boro. B. S. Coler, comr.

Heating and Ventilating Apparatus—New York, N. Y.—C. B. J. Snyder, supt. school bldgs., Municipal Bldg., rejected bids received Aug. 23, installing heating and ventilating apparatus in P. S. 119 and 172. Work will be readvertised. Noted Aug. 19.

Shafts—New York, N. Y.—Until Sept. 21, by New York State Bridge & Tunnel Comm. and New Jersey Interstate Bridge & Tunnel Comm., Room 616, Hall of Records, Manhattan Boro., building 2 shafts for vehicular tunnel under Hudson River; advertised in this issue. Noted Aug. 26.

Retaining Wall—Asbury Park N. J.—Until Sept. 15, by A. G. King, city clk., furnishing labor and material building 125 lin.ft. rein.-con. retaining wall along easterly shore of Deal Lake, here; advertised in this issue.

Tarvia and Crushed Stone—Bloomfield, N. J.—Until Sept. 7, by D. F. Peck, town clk., furnishing 12,000 gal. tarvia and 4,000 ton crushed stone. E. Baechling, Bloomfield Natl. Bank Bldg., town engr.

Sewer Cleaning Machine—Newark, N. J.—Until Sept. 7, by T. L. Raymond, dir. Dept. Streets & Pub. Impvts., City Hall, furnishing and delivering 1 turbine sewer cleaning machine, complete with necessary equipment and appliances.

Fire Alarm System—Baltimore, Md.—Until Sept. 8, by Bd. Awards, care of City Register, furnishing, delivering and installing fire alarm telegraph equipment, including receiving and sending apparatus, batteries, switchboard, etc., for Fire Dept. About $90,000.

Gate Valves, Sleeves, etc.—Detroit, Mich.—Until Sept. 14, by Comn. Purchases & Supplies, Municipal Courts Bldg., furnishing 743 gate valves, 329 tapping sleeves and 810 tapping gates. Separate bids will be received for gate valves. T. A. Leisen, Waterworks Dept., engr.

Water Mains and Sewer Pipe—Hartford, Wis.—City soon receives bids furnishing several carloads water mains and sewer pipe to be used for extensions in various streets. W. Radke, clk. Private plans.

Paving Materials—St. Paul, Minn.—Until Sept. 6, by H. W. Austin, city purch. agt., furnishing following material for paving Mounds Blvd. from Clermont to Mounds Sts., 1,204 bbl. portland cement, 488 cu.yd. crushed rock for concrete base 365 cu.yd. screened sand, cost $6,100. Alley in Block 2, Summit Pk addition, 232 bbl. portland cement, 186 cu.yd. crushed rock for concrete base, 112 cu.yd. concrete sand, 20 tons asphalt, 76 cu.yd fine asphalt sand, 38 cu.yd. coarse asphalt sand, 23 tons limestone dust, 27 tons trap rock and 54 tons binder stone, $2,950; Block 3, Warrendale addition, 228 bbl. portland cement, 182 cu.yd. crushed rock for concrete base, 110 cu.yd. concrete sand, 20 tons asphalt, 75 cu.yd. fine asphalt sand, 37 cu.yd. coarse asphalt sand, 23 tons limestone dust, 27 tons trap rock and 54 tons binder stone, $3,240. O. Claussen, city engr.

Mo., St. Joseph—S. Hotchkiss, 18th and Pennsylvania Sts., receiving bids for 2 trucks, concrete mixer, hoists, tower, etc., for school in Slater, Mo.

Road Materials—Cleburne, Tex.—Comrs. Johnson Co. receiving bids furnishing 10,000 bbl. portland cement, 600,000 lb. reinforcing steel, 10,000 cu.yd. pit run-con. gravel, 10,000 cu.yd. crushed rock and 5,000 cu.yd. concrete sand. Whitaker & Washington, co. engrs.

Blade Graders—Dallas, Tex.—C. E. Gross, and Dallas Co., receiving bids furnishing two 10 in. blade graders with engine hitch and scarifying attachments.

Arizona—Road Work—Until Sept. 9, by E. S. Wheeler, dist. engr., U. S. Dept. Agriculture, Bureau Pub. Rds., 218 Luna-Strickler Bldg., Albuquerque, N. M., building 10.02 mi. Salt River-Pleasant Valley, Sect. 2-C Project, 20 ft. wide, located within Tonto Natl. Forest, Gila Co., involving 25 acres clearing and grubbing, 4,767 cu.yd. rock and 59,087 cu.yd. common excav., 1,766 lin.ft. 18 in., 24 in. and 36 in. C. M. P. culverts, 590 lin.ft. 12 in., 18 in., 24 in., 30 in., and 36 in. C. M. P. culverts, etc.

Breakwater—Port Colborne, Ont.—Until Sept. 10, by Dept. Pub. Wks., Western Blk., Ottawa, repairing 3 parts of superstructure of western breakwater, 496 ft., 134 ft. and 31 ft. lengths, in concrete and stone, including head block, etc. About $170,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

Dams, Power House, etc.—Windsor, N. S.—T. B. Akins, Windsor, and Wright & Jodfrey, Wolfville, are interested in company which plans to build 1 concrete dam, 3 wooden storage dams, canal, flume, power house and pulp mill, involving 25,000 cu.yd. earth and 20,000 cu.yd. rock excav., 1,500 cu.yd. rein.-concrete and 8,000 cu.yd. mass concrete, etc. About $250,000.

Lighting System — London, Ont. — Until Sept. 11, by C. Forrester, supt. Grand Trunk Ry., Dundas St., London, building electric lighting system in yards here, including switch lamps, signals, etc.

Pump and Pipe—London, Ont.—Utilities Comrs. receiving bids furnishing 1 electrical driven waterworks pump with 500,000 Imp. gal. per day capacity, also 25,000 ft. 6-10 in. c.i. pipe and 20 tons ⅜ in. lead pipe. E. V. Buchanan, Hydro Offices, genl. mgr.

Breakwater—Port Maitland, N. S.—Until Sept. 14, by Dept. Pub. Wks., Western Blk., Ottawa, Ont., building addition to east breakwater, 221 ft. cribwork, stone fill, 11 ft. 3 in. wide on west end and 11 ft. 8 in. wide on east end. About $35,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

Pier, Toronto, Ont. — Until Sept. 14, by Dept. Pub. Wks., Western Blk., Ottawa, building 466 ft. of superstructure of the east pier of eastern channel to Toronto Harbor. Work includes stone filled cribs, solid timber face walls, etc.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Coal Pocket—Springfield, Mass.—W. H. Miner Chocolate Co., Berkshire Ave., let contract building 1 story, 50 x 50 ft., rein.-con. coal pocket, to E. F. Carlson Co., 244 Main St.

★Waterway—Bellefont (Providence P. O.) R. I.—Imperial Printing & Finishing Co. let contract building 4 x 800 ft. concrete waterway, 10 ft. deep, at plant, to C. I. Bigney Constr. Co., 357 Westminster St., Providence.

★Retaining Walls—Bridgeport, Conn.—E. M. Jennings Co., Inc., 277 Fairfield Ave., let contract building rein.-con. retaining walls, cement concrete roadways, driveways and sidewalks, at garage on Harrison St., to T. J. Pardy Constr. Co., 1484 Seaview Ave. About $25,000.

★Swimming Pool—Noroton, Conn.—J. A. Harris, Collenders Point, will build 50 x 110 ft. concrete and marble swimming pool. About $50,000. Work will be done by day labor. Noted Aug. 26.

★Stadium and Playground—New York, N. Y.—I. L. Rice, c/o Herts & Robertson, archts. and engrs., 331 Madison Ave., let contract building brick, steel, stone and concrete, in Central Park, to T. J. Buckley Eng. Co., 303 5th Ave. About $1,000,000.

★Generator, Condensers, etc.—Cleveland, O.—City let contracts furnishing one 10,000 kw. steam turbo generator, to Allis-Chalmers Mfg. Co., 1121 Schofield Bldg., Cleveland, $188,000; switchboard, to Westinghouse Mfg. Co., 6905 Susquehanna St., Pittsburgh $12,707; condenser and auxiliaries, to Wheeler Condenser Co., Indianapolis, Ind., $65,000. Noted Aug. 19.

River Wall—Milwaukee, Wis.—City received bid Aug. 24, building 546 ft. rein.-con. river wall along Milwaukee River, from H. Hohensee, Ludington Ave., Wauwatosa, $57.67 per lin.ft.

★White Way System—Bemidi, Minn.—City let contract furnishing 126 posts and 440 candlepower series lamps, for white way system, to Naylor Electric Co., Bemidji, $29,883.

★Paving Materials—St. Paul, Minn.—City let contract furnishing 2,970 bbl. Portland cement, to St. Paul Builders Materials Co., 606 Ryan Bldg., $4. per bbl.; 2,227 cu.yd. crushed rock for concrete base, and 1,338 cu.yd. concrete sand, to Stiefel Materials Co., 501 Concord St., $2.90 and $1.80 per cu.yd. respectively; 273 tons limestone dust, to Minnesota Crushed Stone Co., 1500 Johnson St. N. E., $5.75 per ton; 655 tons binder stone, to St. Paul Crushed Stone Co., Stewart and Victoria Sts., $2.75 per ton; asphalt, to Minnesota Road Equipment Co., 708 Plymouth Bldg., $29.70 per ton. Noted Aug. 26.

★Gas Mantles, etc.—St. Louis, Mo.—Bd. Pub. Serv. let contracts furnishing 300,000,000 cu.ft. gas for gas lights in city streets and parks, to Laclede Gas Light Co., Laclede Gas Light Bldg., at $0.85 per m cu.ft.; 20,100 single, 724 double and 110 triple mantle lamps, to Welsbach Street Lighting Co., Laclede Gas Light Bldg., $375,160, all for 1 year beginning Sept. 1. Noted Aug. 12.

Gasoline, etc.—St. Louis, Mo.—Bd. Pub. Serv. received only bid Aug. 20, furnishing gasoline and maintaining 2,600 gasoline lights, from Welsbach Street Lighting Co., Laclede Gas Light Bldg., $111,592.

Lighting System—Kincardine, Ont.—Town will remodel and extend electric system, including wiring, transformers, and general equipment. About $40,000. Work will be done by day labor under supervision of E. McLeod, supt.

★Coal Plant—Toronto, Ont.—J. A. Harrison Coal Co, Ltd, 57 Brock Ave, let contract building concrete, coal elevating and storage plant with 15,000 ton capacity, including elevating machinery, electrically operated and concrete storage bins, to J. B. Nicholson & Co., 36 Toronto St. About $35,000.

OFFICIAL PROPOSALS

Bids: Sept 9

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N Y., until twelve o'clock noon of Thursday, September 9th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge Canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, and Chapter 402 of the Laws of 1920, as follows:

—1—

TERMINAL CONTRACT NO. 26-A.
For completing the terminal at Rouses Point
Contract plans, sheets 1 to 2

—2—

TERMINAL CONTRACT NO. 53-A.
For constructing certain portions of the dock wall around Ohio Basin, Buffalo.
Contract plans, sheets 1-7 inclusive.

—3—

TERMINAL CONTRACT NO. 76.
For constructing storage yards at Erie Basin, Buffalo.
Contract plans, sheets 1 and 2.

—4—

TERMINAL CONTRACT NO. 114.
For furnishing and installing two three-ton semiportal revolving jib cranes on the Barge canal terminal, at Erie Basin, Buffalo.
Contract plans, sheets 1 to 2.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawing may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.
August 5th, 1920.

Bids: Sept. 22.

Construction of Breakwater

SOUTH PARK COMMISSIONERS

Chi ago, Ill.

Sealed proposals will be received by the South Park Commissioners, 57th Street and Cottage Grove Avenue, Chicago, Illinois, until 12:00 o'clock noon, September 22, 1920, for the construction of a wooden pile, stone-filled breakwater along the lake front extending from opposite Eleventh Place to a point near Twenty-fourth Street, a t al distance of approximately 7,490 feet. The approximate quantities of material required for the work are as follows:

Round piles 40 to 50 ft. long, 11,385.

Timber (waling and sheet piling), 970,000 ft. B.M.

Quarried stone filling, from one cubic yard in size, down, 90,000 tons.

Bolts, rods and other steel work as required by the plans.

The work will be divided into three sections and bids will be considered upon each section separately or upon the work as a whole.

Plans and specifications may be obtained without cost to responsible bidders by application to the South Park Commissioners' office as above.

Each bid must be accompanied by cash or certified check amounting to 5% of the estimated total of the bid, and the bidder to whom the contract is awarded will be required to execute with the contract a surety company bond, in the sum of 25% of the estimated amount of the contract.

J. F. NEIL, Secretary.

Bids: Sept. 10.

Repairing of Road

STATE OF NEW JERSEY
STATE HIGHWAY COMMISSION

Trenton, N. J.

Notice is hereby given that sealed bids will be received by the State Highway Commission of New Jersey for the repair of the following:

State Highway Route No. 1, Highland Park to Hotel Pine, patching with 2-in. bituminous concrete surface, grade W, estimated 8,000 square yards.

Bids will be opened and read in public at the office of the State Highway Commission, Broad Street Bank Bldg., Trenton, N. J., on Friday, Sept. 10, 1920, at 10:30 p.m. (Eastern Standard time).

Specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department at Trenton, N. J., and may be inspected by prospective bidders. Specifications will be furnished on deposit of ten dollars ($10) upon application to the State Highway Department. Bids must be made on the standard proposal forms in the manner designated therein and as required by the specifications, same to be inclosed in sealed envelopes bearing the name and address of bidder and name and section of route on the outside, addressed to

START HIGHWAY COMMISSION,
Broad Street Bank Bldg.,
Trenton, New Jersey.

and must be accompanied by a certified check for not less than ten per cent (10%) of the amount of the bid, and be delivered at the above place on or before the hour named. Copies of the standard proposal form will be furnished on application.

Each bidder must accompany his bid with a certificate from a surety company duly authorized to do business in this State, stating that such surety company will provide said bidder with a bond in such sum as is required in, and in accordance with the provisions of said specifications, conditioned for the faithful performance of the provisions of the contract and specifications.

By order of the STATE HIGHWAY COMMISSION.

A. LEE GROVER,
Chief Clerk.

Bids: Sept. 14.

Construction of Foundations

DEPARTMENT OF PUBLIC WORKS
BOARD OF TRUSTEES
THE FREE LIBRARY

Phila., Pa.

Sealed proposals will be received in Room 216 City Hall addressed to the Director, Department of Punlic Works, and the Board of Trustees, The Free Library of Philadelphia, until 12:00 o'clock noon on Tuesday, September 14th, 1920, and opened at that time in Room 202 City Hall for

The construction of the foundations for the Building of The Free Library of Philadelphia located on a plot of ground bounded by Vine, Nineteenth, Wood and Twentieth Streets, in the City of Philadelphia.

A certificate from the Law Department that the proposal bond has been filed must accompany each bid.

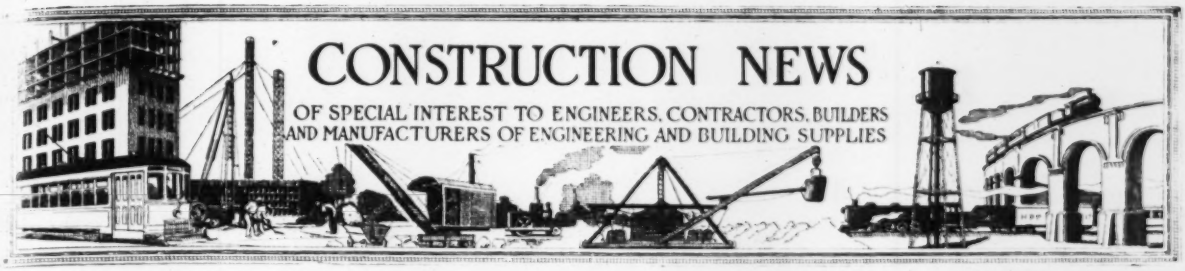
Bidders must fully acquaint themselves with all the legal and departmental regulations applying to contract work in the City of Philadelphia. See reference to various such rgulations in the specifications.

Plans will be delivered upon deposit of Fifteen ($15.00) Dollars with the Architect.

Copies of plans, drawings and specifications for the above work can be secured from Horace Trumbauer, Architect, 1406 Land Title Building, Philadelphia, to whom all inquiries for additional information may be addressed.

The Board of Trustees, The Free Library of Philadelphia.

JOHN ASHHURST, Librarian.
FRANK H. CAVEN, Director,
Department of Public Works.



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 16	Fayette, Mo.	Sept. 9
Sept. 21	Norfolk, Va.	Aug. 26
	Adv. Aug. 26 to Sept. 9.	
Sept. 22	Richfield Springs, N. Y.	Sept. 9
	Adv. Sept. 9.	
Sept. 23	Wauseon, O.	Sept. 2
	Adv. Sept. 2 and 9.	
Sept. 27	Seattle, Wash.	Sept. 9

SEWERS

Sept. 15	Rahway, N. J.	Sept. 9
	Adv. Sept. 9.	
Sept. 15	Harrisburg, Pa.	Sept. 9
Sept. 16	Teaneck, N. J.	Sept 2
	Adv. Sept. 2 and 9.	
Sept. 21	Paterson, N. J.	Sept. 9
Sept. 21	Grant City, Mo.	Sept. 9
Oct. 4	Pontiac, Mich.	Aug. 26

BRIDGES

Sept. 13	Belleville, Kan.	Aug. 26
Sept. 14	Floyd, Va.	Sept. 2
Sept. 14	Lock Haven, Pa.	Aug. 26
	Adv. Aug. 26 to Sept. 9.	
Sept. 14	Perry, Ga.	Aug. 26
Sept. 15	Asbury Park, N. J.	Sept. 2
Sept. 15	Portsmouth, N. H.	Sept. 2
	Adv. Aug. 26 to Sept. 9.	
Sept. 15	Providence, R. I.	Aug. 26
Sept. 15	Iola, Kan.	Aug. 26
Sept. 15	New York, N. Y.	Sept. 9
Sept. 15	Portsmouth, N. H.	Aug. 12
	Adv. Aug. 12 to Sept. 9.	
Sept. 18	Racine, Wis.	Sept. 9
Sept. 18	Salisbury, N. B.	Sept. 2
Sept. 21	Union, W. Va.	Sept. 2
Sept. 22	Monticello, Ga.	Sept. 9
Sept. 25	Farmville, Va	Sept. 9
Sept. 25	Hillsville Va.	Sept. 9
Sept. 30	New Orleans, La.	Aug. 26
Sept. 30	Wickenburg, Ariz.	Sept. 9
	Adv. Sept. 9.	

STREETS AND ROADS

Sept. 13	Jasper, Tex.	Aug. 26
Sept. 13	Minneapolis, Minn.	Aug. 26
	Adv. Sept. 2 and 9.	
Sept. 13	Ontario	Sept. 9
Sept. 14	Meriden, Conn.	Sept. 9
	Adv. Sept. 9.	
Sept. 14	Fergus Falls, Minn.	Aug. 19
Sept. 14	Newaygo, Mich.	Sept. 2
Sept. 14	Charleston, W. Va.	Aug. 19
Sept. 14	Garnett, Kan.	Aug. 19
Sept. 14	Philadelphia, Pa.	Sept. 9
Sept. 14	International Falls, Minn.	Sept. 9
Sept. 15	Thief River Falls, Minn.	Sept. 9
Sept. 15	Clinton, Ia.	Sept. 2
Sept. 15	New York ,N. Y.	Sept. 9
Sept. 15	St. George, S. I., N. Y.	Sept. 9
Sept. 15	Brooklyn, N. Y.	Sept. 9
Sept. 15	Washington, D. C.	Sept. 9
Sept. 15	Baltimore, Md.	Sept. 9
Sept. 16	Ontonagon, Mich.	Sept. 2
Sept. 16	Girard, Kan.	Aug. 26
Sept. 16	Franklin, Tex.	Sept. 2
Sept. 16	Darlington, S. C.	Sept. 9
	Adv. Sept. 9.	
Sept. 17	Missouri	Sept. 9
Sept. 17	Rome, Ga.	Sept. 9
Sept. 17	Lapeer, Mich.	Sept. 2
Sept. 18	Greeneville, Tex.	Sept. 9
Sept. 20	Vanceboro, N. C.	Sept. 2
Sept. 20	New Britain, Conn.	Sept. 9
Sept. 21	Springfield, O.	Sept. 9
Sept. 21	New Orleans, La.	Sept. 9
Sept. 21	St. George, S. C.	Aug. 12
Sept. 21	Cimmarron, Kan.	Sept. 9
Sept. 21	Willmar, Minn.	Sept. 9
Sept. 22	Charleston, W. Va.	Sept. 2
Sept. 24	Abilene, Tex	Sept. 9
	Adv. Sept. 2 and 9.	
Sept. 24	Girard, Kan.	Sept. 9
Sept. 27	Quebec, Que.	Sept. 9
Sept. 28	Kaufman, Tex.	Sept. 2
Sept. 28	Kaufman, Tex.	Sept. 9

EXCAVATION AND DREDGING

Sept. 13	Pontiac, Mich.	Sept. 2
Sept. 14	Paterson, N. J.	Sept. 2
Sept. 14	Ft. Dodge, Ia.	Sept. 2
Sept. 18	Oskaloosa, Ia.	Sept. 9
	Adv. Sept. 9.	
Sept. 22	Wapello Ia.	Sept. 9
	Adv. Sept. 9.	
Sept. 22	Mankato, Minn.	Sept. 9
Sept. 27	Eudora, Ark.	Sept. 2
Sept. 27	Helena, Ark.	Sept. 9

INDUSTRIAL WORKS

Sept. 15	Ossining, N. Y.	Aug. 19
Sept. 17	Wakeeney, Kan.	Sept. 2
Sept. 29	Buffalo, N. Y.	Aug. 26

BUILDINGS

Sept. 11	Indianapolis, Ind.	Sept. 9
Sept. 13	Milwaukee, Wis.	Sept. 9
Sept. 14	Wash., D. C.	Sept. 9
Sept. 14	Erie, Pa.	Sept. 2
Sept. 14	Marmarth, N. D.	Sept. 2
Sept. 14	Montevideo, Minn.	Aug. 26
Sept. 14	Glassboro, N. J.	Aug. 26
Sept. 15	Edinburg, Tex.	Aug. 26
Sept. 15	Fond du Lac, Wis.	Sept. 2
Sept. 15	Ossining, N. Y.	Aug. 26
Sept. 15	Denver, Col.	Aug. 12
Sept. 15	Denver, Col.	Aug. 5
Sept. 17	Minneapolis Minn.	Sept. 9
Sept. 18	Hoytville, O.	Sept.
Sept. 18	West Allis (Milwaukee, P. O.), Wis.	Sept. 9
Sept. 20	Brooklyn, N. Y.	Aug. 26
Sept. 21	Springfield, O.	Sept. 2
Sept. 22	Wiota, Ia.	Sept. 2
Sept. 23	Liberty, Mo.	Sept. 9
Sept. 27	Ebensburg, Pa.	Sept. 9
Sept. 27	New Orleans, La.	Sept. 9
Oct. 1	Granite City, Ill.	Sept. 2
Oct. 3	Canton, O.	Sept. 9
Oct. 12	Huron, S. D.	Sept. 2

FEDERAL GOVERNMENT WORK

Sept. 13	Barges—Nashville, Tenn.	Aug. 26
Sept. 14	Electric Freight Lift etc.—St. Paul, Minn.	Aug. 26
Sept. 15	Lifeboat House and Accessories—Marblehead, O.	Aug. 26
Sept. 15	Pontoon Catamarans—Jacksonville, Fla.	Aug. 26
Sept. 15	Remodeling Post Office and Courthouse—Freeport, Ill.	Sept. 2
Sept. 15	Jetty—Jacksonville, Fla.	Aug. 26
Sept. 15	Bowlers Rock Light—Baltimore, Md.	Sept. 9
Sept. 16	Jetty—New Orleans, La.	Aug. 19
Sept. 21	Sound Deadening Wall and Ceiling Covering—Wilmington, N. C.	Sept. 2
Sept. 23	Refrigerating Machine — New Orleans, La.	Sept. 2
Sept. 25	Harbor Development—Spec. 4136—Great Lakes, Ill.	Aug. 19
Sept. 30	Metal Work—Key West, Fla.	Sept. 2

MISCELLANEOUS

Sept. 14	Foundation—Philadelphia, Pa.	Aug. 26
Sept. 14	Gate Valves, Sleeves, etc. —Detroit, Mich.	Sept. 2
Sept. 14	Breakwater—Port Maitland-N. S.	Sept. 2
Sept. 14	Pier—Toronto, Ont.	Sept. 2
Sept. 14	Wall—Newark, N. J.	Sept. 9
Sept. 15	Plant—New York, N. Y.	Sept. 9
Sept. 15	Retaining Wall — Asbury Park, N. J.	Sept. 2
Sept. 15	Lighting Equipment—Detroit, Mich.	Aug. 26
Sept. 20	Sewer Cleaner—Lockport, N. Y.	Sept. 2
Sept. 21	Dam, Pump House, etc.—Norfolk, Va.	Aug. 26
Sept. 21	Rapid Transit—New York, N. Y.	Sept. 9
Sept. 21	Shafts—New York, N. Y.	Sept. 2
	Adv. Sept. 2 and 9.	
Sept. 22	Breakwater—Chicago, Ill.	Aug. 19
Sept. 27	Well, Well House, etc.—Sioux Falls, S. D.	Sept. 9
Sept. 28	Crushed Trap Rock or Lime Stone—Kaufman, Tex.	Sept. 9
Sept. 30	Transformers, etc.—Sacramento, Cal.	Aug. 19
Oct. 1	Pumping Engine—Janesville Wis.	Sept. 9

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Kenwood—Citizens of Kenwood and Sherrill have authorized Bd. Comrs. of combined water district to issue $175,000 bonds to install water system to serve both communities.

Mich., Charlotte—City having plans prepared by R. A. Murdock, engr., 628 Free Press Bldg., Detroit, for extension and additions to waterworks system. About $50,000.

Mich., Ferndale (Detroit P. O.)—Village having plans prepared by G. Jerome, engr., 1331 Majestic Bldg., Detroit, building 6 and 8 in. c.i. extensions to waterworks system, including valves, valve boxes, etc. About $65,000.

Minn., Breckenridge—City will sell $25,000 bonds Sept. 20, to extend water mains and $15,000 for lighting plant.

Kan., Olathe—City voted $63,000 bonds to increase height of concrete and earth dam 5-6 ft. E. E. Harper, 3031 Park St., Kansas City, Mo., engr.

Kan., Ottawa—City election Sept. 24, to vote on $165,000 bonds to improve waterworks system and electric light plant. Engineer not decided.

Tex., Dallas—City having plans prepared by G. D. Fairtrace, engr., City Hall, for water purification plant for White Rock Reservoir. About $350,000.

Cal., Vallejo—City having estimates made for bringing water here and to Mare Island Navy Yard from Gordon Valley. City Comn. plans election to vote on bonds in excess of $1,000,000 for project. T. D. Kilkenny, city engr.

Ont., Fenelon Falls—Village plans to build waterworks and fire protection plant, including pump house, electric pumps, c. i. distribution system, and reservoir or elevated tank. About $50,000. O. Smith, Lindsay, engr.

Ont., York—Township soon receives bids building 15,500 ft. 6 in. c.i. pipe, in various streets. Sec. A, cost, $21,000; Sect. B, $10,000. F. Barber, 40 Jarvis St., Toronto, engr.

BIDS DESIRED

N. Y., Richfield Springs—Until Sept. 22, by Village Water Comrs., furnishing and laying 5,200 ft. c.i. pipe, setting valves, building intakes, etc. V. A. Cameron, secy. T. F. Dowe, 30 East 23rd St., New York City, engr.; advertised in this issue.

Waterworks (Continued)

Mo., Fayette—Until Sept. 16, by City Clerk, furnishing labor and material extending waterworks system, involving 30,000 cu.yd. earthen dam, 3,000 sq.yd. riprap, 14,000 lin. ft. 8 in. c.i. pipe, 1 concrete intake and 100 cu.yd. grouted rubble walls. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract laying and relaying 4,025 ft. 4-12 in. c. i. pipe in South Boston, Roxbury and here, to J. Williams, 306 Hanover St.

O., Alliance—City received bid Sept. 2, building additions to waterworks dam, from J. C. Devine Co., Alliance. About $22,000.

Wis., Cedarburg—City received bids Aug. 24, installing new waterworks system, laying 25,000 ft. water pipe, building concrete reservoir, 50,000 gal. steel tank, etc., from J. T. Blake, 611 South Few St., Madison, $132,280. Noted Aug. 5.

Sewers

PROPOSED WORK

N. J., Haledon—Boro. having plans prepared for sewerage system. H. J. Harder, 692 14th Ave., Paterson, engr.

Mich., Detroit—City plans to build 2,593 ft. sewer in Halleck Ave. from Jos. Campau to Dequindre Sts., 4-5 ft. cylinder, etc., also 3 898 ft. in Bauman and State Fair Aves. from Seven Mile Rd. to Ralston Ave., 5 ft. 3 in.-7 ft. 6 in. cylinder, both brick, concrete and segmental block. C. W. Hubbell, city engr.

Ill., Cairo—City opens bids about October, building 6-36 in. sewers in 38th St. About $80,000. G. F. Dewey, 613 Ohio St., city engr.

Wis., Augusta—City plans to lay vitr. pipe sewers and build new sewerage system. Bonds for $40,000 voted for project. Cost between $50,000 and $80,000.

Wis., Burlington—City having preliminary plans prepared for new sewerage system. About $75,000. C. H. Tubbs, Burlington, engr.

Wis., Milwaukee—Sewerage Comn. having plans prepared and contemplates construction of following work during 1921, sewage tanks and equipment, cost $2,175,000; power house and equipment, $250,000; boilers, piping and equipment, $500,000; fine screen building and equipment, $325,000; inner dock, $200,000; sludge dryers, press and equipment, $274,000. T. C. Hatton, city engr.

Ore., Portland—City soon receives bids building sewers in 34th Ave. S. E. from 49th St. S. E. to Creston St., cost $178, East 75th St. from Pacific to East Glisan Sts., $4,743, East 22nd Ave. and Alberta St., System, $49,091, East 56th St. from Thompson to Halsey Sts., $7,956, Killingsworth Ave. from East 8th St. to Union Ave., $3,179, College St. from 16th to 14th Sts., $831, Sumner St. from East 19th St. to Union Ave., $4,662, Webster St. from East 8th St. to Union Ave., $6,207, East 8th St. from Ainsworth Ave. to Magnolia St., $4,198; also grading and replacing concrete curbs, etc., on 92nd St., S. E., $17,338. O. Laurgaard, city engr.

Ont., Sandwich, East—Township plans to build 6 mi. trunk sewer, one from Ford City to Peach Island and other from Sandwich to Peach Island. About $200,000. Knowles, Ltd., Windsor, engr.

BIDS DESIRED

N. J., Rahway—Until Sept. 15, by Bd. Comrs., City Hall, building 744 ft. 12 in. 258 ft. 10 in. and 1,000 ft. 8 in. vitr. tile pipe sewers. L. Price, city engr.; advertised in this issue

Pa., Harrisburg—Until Sept. 15, by W. H. Lynch, supt. highways, Commonwealth Trust Bldg., constructing 2 ft. 8 in. x 2 ft. 10 in. rectangular rein.-con. sanitary main sewer in Cameron Parkway, 18 in. terra cotta pipe sanitary main sewer in Elder and Raleigh Sts. and 8 in. terra cotta pipe sanitary sewer in Caledonia and Hudson Sts. About $50,000. M. B. Cowden, Commonwealth Trust Bldg., engr.

Mo., Grant City—Until Sept. 21, by City Clerk, building public sewer and disposal works in Dist. 1, involving 2,340 ft. 8 in., and 1,640 ft. 10 in. vitr. pipe, 4,100 lin. ft. 6-12 ft. earth trenching, 32.6 cu.yd. concrete in Imhoff tank, 129 cu.yd. excav., 23 cu.yd. filtering material in sludge filter. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. Y., S. I., St. George**—Richmond Boro. let contract building sanitary sewers in Seaside Blvd. from Sea Ave. to point 3,000 ft. west of Sand Lane, to J. Johnson, Sons, West New Brighton, $133,258.

★**O., Cleveland Heights** (Warrensville, P. O.)—Village let contract building 5140 ft. 8-24 in. vitr. sewer pipe in Cumberland Ave. from Lee to Mayfield Rds., to A. Marra, 345 The Arcade, Cleveland. $31,353. Noted Sept. 2.

★**O., Euclid**—Village let contracts laying (1) storm and sanitary sewers, (2) water mains in (a) Midland Rd., (b) Garland Drive from South Lakeshore to Eastlawn Blvd., (c) South Lakeshore Blvd., from Newton Rd. to Lakeshore Blvd., (d) Fern Drive from South Lakeshore to Eastlawn Blvds., involving 6,490 ft. 8-20 in. vitr. and 2,761 ft. 6-8 in. c. i. pipe, (e) Azalia Drive from South Lakeshore to Eastlawn Blvds., (f) Marigold Ave. from South Lakeshore to Eastlawn Blvds., (g) Orchid Drive from South Lakeshore to Eastlawn Blvds., (h) Eastlawn Drive from South Lakeshore to Eastlawn Blvds., (i) East 230th St. from St. Clair to Arms Ave., 6,480 ft. 8-30 in. vitr. and 3,545 ft. 4-8 in. c. i. pine, to Hadded Mall Co., 335 The Arcade, Cleveland. (1a) $13,639; A. Marra, Illuminating Bldg., Cleveland, (1b) $6,526, (1c) $16,500, (1d) $1,363, (1e) $1,415, (1f) $3,782, (1g) $2,282, (1h) $9,392, (2h) $5,590; J. B. Lynn, 335 The Arcade Cleveland, (2a) $4,952, (2b) $3,896, (2c) $8,219, (2d) $1,080, (2e) $1,000, (2f) $2,301, (2g) $1,665, (1i) $3,064, (2i) $1,988. Noted Aug. 12.

Mich., Detroit—City received bids furnishing labor and material (except manhole rings and covers) building and finishing complete, vitr. crock sewers with brick manholes in (1) Lateral Sewer 3302, Vinton, Raymond, Georgia and Edgewood Sts., (2) 3307, Raymond, Clarion, Georgia and Edgewood Sts., (3) 3309, Erwin, Holcomb, Georgia and Edgewood Sts., (4) 3311, Jos. Campau, Cody, Mitchell and Davison Aves., (5) 3312, Jos. Campau, Cody, Mitchell and Halleck Sts., (6) 3321, Newport, Chalmers, Mack and Forest Aves., (7) 3322, Van Dyke, Erwin, Edgewood and Woodlawn Aves., (8) 3323, Seven Mile Rd., Bauman, Charleston and Annin Aves., (9) 3324, Raymond, Traverse, Knodell and Gratiot Aves., (10) 3327, Ralston, Bauman, Carmel and Annin Aves., (11) 3328, Ralston, Charleston, Adeline and State Fair Aves., (12) 3329, Ralston, Charleston, Annin and Lantz Aves., (13) 3330, Ralston, Charleston, Fernhill and Adeline Aves., (14) 3331, Ralston, Charleston, Lantz and Fernhill Aves., (15) 3332, Dexter Blvd., Lawton, Auburn and Puritan Aves., (16) 3181, West Line Highland Park, Log Cabin, Puritan and Florence Aves., (17) 2232, Petosky, Dexter, Calvert and Lawrence Sts., from V. Teetart, 5230 Notre Dame St., (1) $5782, (2) $14,218, (5) $8,562, (9) $40,533, (12) $16,399, (14) $15,498; N. Mancini, 580 Concord Ave., (1) $4,700, (2) $11,100, (9) $29,000; A. H. Haynes, 70 Davenport St., (1) $4,350; Lennane Bros., 809 Union Trust Bldg., (2) $13,987, (3) $23,029, (7) $26,870; Oakwood Constr. Co., 165 Fort Blvd., (3) $26,650, (4) $11,770, (5) $8,180, (6) $17,600, (8) $43,500, (10) $6,110, (11) $17,606, (12) $14,600, (13) $14,795, (14) $14,621, (15) $53,700, (16) $22,160; Liberty Constr. Co., 917 Chamber of Commerce Bldg., (6) $15,683; Western Constr. Co., 1208 Ford Bldg., (6) $16,386, (8) $55,100, (10) $6,720, (11) $17,760, (12) $15,989, (13) $15,654, (14) $14,893, (15) $53,566, (16) $20,371, (17) $14,793; R. D. Baker, Penobscot Bldg., (10) $5,850, (11) $22,050, (13) $14,600; Lennane & McIlvenna, 1205 Book Bldg., (17) $11,750. Noted July 22 and 29.

★**Ill., East St. Louis**—City let contract building 7 mi. 48-78 in. rein.-con. and 20-48 in. vitr. sewer pipe in Winstonly Sewer Dist., to J. Keeley Constr. Co., Cahokia Bldg. About $415,000.

Wis., Cedarburg—City received bids building sewerage system throughout entire city, to include excavating and laying 35,000 ft. vitr. pipe sewer, 2 sewage disposal tanks, sewage pumping station and pneumatic ejector, from J. T. Blake, 611 South Few St., Madison, $89,635; Wenzel & Henoch, 498 27th St., Milwaukee, $96,252; E. R. Harding Co., 400 Robinson Bldg., Racine, $133,345.

Ia., Atlantic—City let contract building sanitary sewers in various streets, to Akin & Flutter, Corning, $23,654.

★**Minn., Benson**—City let contract extending sewerage and waterworks systems, involving 7,554 ft. 12 in. sewer pipe, 21 manholes, 20 catch basins, 2,000 ft. Class "B" c.i. pipe, etc., to E. T. Webster, 427 Beacon Ave., St. Paul. $28,106. Noted Aug. 19.

★**Neb., Minden**—City let contract [illegible] ling sewers in 10 blocks, to Donn[illegible] Briggs, Shenandoah, Ia. About $12[illegible]

Ore., Portland—City received bid[illegible] nishing and laying cement pipe s[illegible] (a) East 58th St. from north line of [illegible] Blvd. to sewer in Klichitat St., (b) S[illegible] St. from Serene Park to East 9th S[illegible] 86th St. from Ash to East Stark St[illegible] 67th St. S. E. and 45th Ave. S. E. se[illegible] system, from Portland Realty and Tr[illegible] Exch. Bldg. (a) $6,591; J. Keating, [illegible] land, (b) $4,931, (c) $2,447; (d) $[illegible] Azar & Co., Portland, (b) $4,965; M[illegible] arie & Co., Portland, (b) $5,356, (c) $[illegible] Lane & Pasanen, Portland, (c) $[illegible] Oregon Constr. Co., Portland, (c) $[illegible]

★**Ont., Newmarket**—Town let cont[illegible] building outfall sewer involving 2[illegible] 15-18 in. vitr. tile pipe, to Curran & B[illegible] Orrillia. About $34,000.

Bridges

PROPOSED WORK

Alabama—State Highway Comn., Montgomery, having surveys made by L. G. Smith, bridge engr., c/o State Highway Dept., for Rooster Bridge over Tombigbee River, 14 mi. from Demopolis, Marengo and Sumter Counties. Work includes approaches, sub-structure and super-structure, 200 ft. clear opening, probably bascule or vertical lift.

Alabama—State Highway Dept., Montgomery, having plans prepared by L. G. Smith, bridge engr., c/o State Highway Dept., for 180 camel back truss, 21 ft. c to c trusses, 102 ft. deck-pratt truss, 11 ft. c to c trusses, two 60 ft. plate girder spans (no substructure work or approaches for above bridges), 40 mi. north of Birmingham, Cullman and Blount Counties, cost $60,000; two 120 ft. steel Pratt trusses and two 175 ft. steel camel back trusses, 416 ft. concrete trestle approach and concrete piers, 9 mi. northeast of Montgomery, Elmore and Montgomery Counties, $150,000; six concrete girder bridges, one to have 50 ft. span, two 60 ft., three 57 ft., four 30 ft., five 39 ft. and six 30 ft., on piers abandoned by Louisville & Nashville RR. south of Cullman, Cullman Co.

O., Cleveland—City plans to build a concrete bridge, on East 107th St. and Carnegie Ave. About $250,000. R. Hoffman, 618 City Hall, engr.

Mich., Flint—City having plans prepared by E. C. Shoecraft, engr., Flint, for 160 ft. steel and concrete bridge, double arch, 57 ft. wide, over Flint River on Beach St.

Ill., East St. Louis—C. M. Slaymaker, dist. engr., Metropolitan Bldg., opens bids about Oct. 1, building 1,500 ft. concrete and steel bridge, 18 ft. wide, over Cascaskia River, between here and Mt. Vernon, for Special Rd. Dist.

Minn., New Ulm—Brown Co. having plans prepared for Bridge 3454 over Big Cottonwood River, to have two 120 ft. steel truss spans on rein.-con. abutments. About $30,000. State Highway Dept., Guardian Life Bldg., St. Paul, engrs.

Minn., New Ulm—City, Brown Co. (New Ulm), Nicollet Co. (St. Peter) and Federal Government plan to build one 100 ft. and one 300 ft. steel span bridges, 18 ft. roadways, over Minnesota River, latter to have three 100 ft. spans. About $60,000.

Mo., Jefferson City—City had plans prepared by Waddell & Son, engrs., 800 Graphic Arts Bldg., Kansas City, Mo., for 700 ft. steel bridge, 17 ft. wide, on concrete piers and wood piling, over Osage River, involving 1,225 cu.yd. concrete, 275 tons steel and 5,250 lin.ft. wooden piling. About $200,000. C. A. Dircks, clk.

BIDS DESIRED

N. Y., New York—Until Sept. 15, by M. Hulburt, Comr. Docks, Pier A, furnishing labor and material building inshore portion of Brooklyn Bridge Improvement.

Va., Farmville—Until Sept. 25, by Chn. Bd. Superv. Prince Edward Co., building 48 ft., steel beam bridge, over Vaughns Creek., near Hurtsville, for State Highway Comn., Richmond.

Va., Hillsville—Until Sept. 25., by Chn. Bd. Superv. Carroll Co., building 52 ft. steel truss bridge over Pauls Creek on Flower Gap, and 82 ft. steel truss bridge over Little Reed Island Creek, near Southern Store, for State Highway Comn., Richmond.

Ga., Monticello—Until Sept. 22, by Comrs. Jasper Co. building 2 rein.-con. bridges, one 1.5 mi. from here to have two 26 ft. and two 16 ft. concrete spans on 3 concrete piers and 2 concrete abutments with wing walls; other 4.5 mi. from here to have three 26 ft. concrete deck girder spans on 2 concrete piers and 2 con-

Bridges (Continued)

crete abutments with wing walls. Work involves 159.1 cu.yd. Class "A," 275.9 cu.yd. Class "B" and 60.9 cu.yd. Class "C" concrete, 37,020 lb. reinforcing steel, etc. Bids will also be received on alternate designs, involving 286.5 cu.yd. Class "A" and 321 cu.yd. Class "B" concrete and 28,000 lb. reinforcing steel.

Wis., Racine—Until Sept. 18, by Bd. Pub. Wks., building 150 ft. rein.-con. arch bridge on Spring St., 30 ft. wide, to be known as Millmine Bridge. About $40,000. Klug & Smith, Mack Blk., Milwaukee, engrs.

Tex., Greenville—Until Sept. 18, by A. J. Gates, judge Hunt Co., grading, surfacing and building concrete and steel bridges and culverts on 11.14 mi. Greenville-Caddo Mills Rd., 16 ft. wide, involving 7 acres clearing and grubbing, 50,499 cu.yd. borrow, 48,916 cu.yd. unclassified earth and 3,290 cu.yd. structural excav., 2,257.4 cu.yd. Class "A" and 184.5 cu.yd. Class "B" concrete, 32,504 cu.yd. crushed stone, 233,027 lb. reinforcing and 78,880 lb. structural steel, etc. About $310,000. A. D. Duck, co. engr.

Ariz., Wickenburg—Until Sept. 30, at office of T. Maddock, state highway engr., Phoenix, building steel bridge, to have two 100 ft. steel trusses, across Hassayampa River, on Federal Aid Project 31, here; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Maine—State Highway Dept., Augusta, received bids building (a) steel swing superstructure for Belfast Lower Bridge, Belfast, Waldo Co., (b) concrete abutments and (c) steel superstructure for Cumberland St. Bridge over Presumpscott River, Westbrook, Cumberland Co., from Boston Bridge Wks., Inc., 47 Winter St., Boston, Mass., (a) $34,800, (c) $11,883; United Constr. Co., 24 James St., Albany, N. Y., (a) $38,337, (c) $10,682; E. Cyr & Co., Waterville, (b) $28,945.

★**Maine**—State of Maine and Dept. Pub. Wks., Quebec, Que., let contract building substructure of Edmunston, N. B.-Madawaska, Me. International Bridge over St. John River, to B. C. Burnee & Sons, South Devon, N. B., Can., $122,204; superstructure, to Dominion Bridge Co., Dominion Sta., Montreal, Que., Can., $147,820.

★**N. Y., Herkimer**—Town Bds. Herkimer and Fairfield let contract building rein.-con. arch bridge over West Canada Creek and crossing over tracks of Adirondack Div. of New York Central R.R. with approaches and appurtenant structures at Depster, 3 mi. north of here, to Peckham Constr. Co., Niagara Life Bldg., Buffalo. Noted July 22.

★**New Jersey**—State Highway Comn., Trenton, let contract building plate girder bridge No. C. 49 ft. span, 30 ft., roadway, 5 ft. sidewalk, also incased I beam bridge No. D, 14 ft. span, 30 ft. wide, on State Highway 2, Roebling-Bordentown, Burlington Co., to East Jersey Bridge Co., 175 Smith St., Perth Amboy, $49,898 and $21,192 respectively. Work involves 58,700 lb. steel and 26,700 lb. old refabricated steel. Noted Aug. 19.

★**Pa., Ebensburg**—Cambria Co. let contract building concrete and steel bridge over Conemaugh River, connecting Franklin and East Conemaugh Boros. to Penn Bridge Co., Beaver Falls, $136,435. Noted Aug. 19.

★**Ill., Danville**—City let contract building 1,038 ft. rein.-con. bridge, over Vermillion River, to have 6 arch spans, approach span and 30 ft. roadway, to M. Yeager & Sons, Danville. Noted April 22.

★**Minn., New Ulm**—Brown Co. let contracts building Bridge 3279, to have two 100 ft. steel spans on rein.-con. abutments, to Minneapolis Bridge Co., 1035 Metropolitan Life Bldg., Minneapolis, $29,989; Bridge 3209, to have two 100 ft. spans on rein.-con. abutments, to Joliet Bridge & Constr. Co., 731 Metropolitan Life Bldg., Minneapolis, $25,000.

★**Kan., Junction City**—Comrs. Geary Co. let contract building 150 ft. rein.-con. rainbow arch bridge, 18 ft. roadway, near here, to Koss Constr. Co., 2818 5th St., Des Moines, $39,439. Noted Aug. 5.

Missouri—State Highway Dept., St. Joseph, received bids Aug. 20, from Lynch-McDonnell, Moberly, building rein.-con. skew slab superstructure and 4 rein.-con. pile bents over Contrary Creek, sta. 64 plus 32, involving 10 cu.yd. Class "A" concrete, $50 per cu.yd., 215.7 cu.yd. Class "B" $30, 28,000 lb. reinforcing steel, $0.09, total cost $9,491; rein.-con. through girder superstructure and 2 rein.-con. abutments, over Rushville Drainage Ditch on Sta. 649 plus 51, 6 cu.yd. Class "A" concrete, $50 per cu.yd., 244.1 cu.yd. Class "B" $30, 25,105 lb. reinforcing steel, $0.09, $9,887; rein.-con. deck girder superstructure, 2 rein.-con. abutments and 1 temporary bridge, over Drainage Ditch on Sta. 229, 5.5 cu.yd. Class "A" concrete, $50 per cu.yd., 1,099 cu.yd. Class "B" $30, 10,730 lb. reinforcing steel, $0.09, $4,787; rein.-con. skew slab superstructure, 2 rein.-con. abutments, and 1 concrete pier, over Drainage Ditch on Sta. 515 plus 65, 9.9 cu.yd. Class "A" concrete, $50 per cu.yd., 104 cu.yd. Class "B" $30, 19.2 cu.yd. Class "C," $25, 8,596 lb. reinforcing steel, $0.09, $4,869; rein.-con. skew slab superstructure, 2 rein.-con. abutments and 2 concrete piers, over Drainage Ditch on Sta. 357 plus 90, 9.8 cu.yd. Class "A" concrete $50, 123.5 cu.yd. Class "B" $30, 44.8 cu.yd. Class "C" $25; 11,840 lb. reinforcing steel, $0.09, $6,381. Noted Aug. 5.

★**Ontario**—Dept. Pub. Rds., Toronto, let contract building concrete bridges and culverts on Provincial Highway in West Cramahae and Tyndinaga Twps., to Harvey & Armitage, Deseronto; Hope and Clark Twps., to W. P. Godson & Co., 30 Leopold St., Toronto; Clinton, Saltfleet and North Grimsby Twps., to Murphy Constr. Co., Toronto. Total cost $70,000.

★**Ont., Orangeville**—Dufferin Co. let contract building 11 rein.-con. bridges, 6-40 ft. spans, 20-30 ft. roadway, as follows, 8 to J. Kidd, Inglewood, $17 per cu.yd.; 1 to Canada Constr. Co., 907 Excelsior Life Bld., Toronto, $23 per cu.yd.; 1 to J. McBride, Grand Valley, $20 per cu.yd.; 1 to Scott, Maddock & Mitchell, 48 Alexander St., Toronto, $23 per cu.yd. Work involves 1,500 cu.yd. rein.-con., 1,600 cu.yd. stone, etc. Total cost, $35,000.

★**Ont., Port Dover**—Norfolk Co. (Sim Coe) let contract building 120 ft. bridge with concrete approaches at each end, involving 584 cu.yd. rein.-con., 25,000 lb. reinforcing steel and 550 cu.yd. stone, to A. C. Stewart & Sons, Port Dover. About $25,000. Noted July 22.

Streets and Roads

PROPOSED WORK

Mass., Boston—City plans to build Caroline Ave., involving 350 cu.yd. concrete walls and 8,000 cu.yd. excav. About $35,000.

N. J., Newark—Dept. Streets and Pub. Impvts. soon receives bids paving, grading and flagging Pershine Ave. from Watson St. north, brick on concrete, paving Grand Ave. from South Orange to Mt. View Aves., asphalt or concrete. About $25,000.

Fla., St. Augustine—St. John Co. defeated $2,250,000 bonds Aug. 24, to pave, hard surface and build 2 concrete bridges. Noted Aug. 5.

Ohio—State Highway Dept., Columbus, rejected bids received Aug. 20, grading, building bridges and culverts and paving 4.087 mi. Sect H Bucyrus-Upper Sandusky Rd., Crawford Co., bituminous concrete. Work will be readvertised. Noted Aug. 26.

Ohio—State Highway Comn., Columbus, received no bids Sept. 3, building roads in following counties:

Belmont Co., Sect. "H-1" Barnesville-Woodsfield Rd., 1.778 mi., grading, constructing bridges and culverts and paving with bituminous macadam.

Sect. "F" Barnesville-Woodsfield Rd., 2.061 mi., grading, constructing bridges and culverts and paving with bituminous macadam.

Clermont Co., Sect. "N-2" Milford-Hillsboro Rd. 3.548 mi., grading, constructing bridges and culverts and paving with waterbound macadam.

Scioto Co., Sect. "B" Portsmouth-Oak Hill Rd., 1,997 mi., grading, constructing bridges and culverts and paving with either brick, or monolithic brick. Noted Aug. 26.

Ill., Belleville—St. Clair Co. soon receives bids grading and paving 3½ mi. road from East St. Louis to Carlinville, 16 and 18 ft. wide, involving 35,000 sq.yd. concrete, cost $200,000; 1½ mi. Natl. Old Nails Rd., 18 ft. wide, 16,000 sq.yd. concrete, $150,000. C. M. Slaymaker, Metropolitan Bldg., East St. Louis, engr.

Ill., Belleville—St. Clair Co. opens bids about Oct. 1, grading, paving and building bridges on 60 mi. road from East St. Louis to Mt. Vernon, 18 ft. wide, involving 630,000 sq.yd. concrete. About $3,000,000. C. M. Slaymaker, Metropolitan Bldg., East St. Louis, dist. engr.

Wis., Two Rivers—City plans to scarify, relevel, reroll, resurface, etc. 2.1 mi. Washington, Monroe and 16th Sts., 18 ft. wide. About $25,000. Engineer not selected.

Ill., Mounds—City soon receives bids graveling, curbing, guttering, building macadam pavement, etc., on various streets. About $25,000. G. F. Dewey, 613 Ohio St., Cairo, engr.

Minn., New Ulm—City, Brown Co. (New Ulm), Nicollet Co. (St. Peter) and Federal Government plan to grade and fill in high water crossing over Minnesota River. About $60,000.

S. D., Watertown—City Council plans to pave 116 blocks. About $250,000. B. Mather, clk.

Nev., Reno—Washoe Co. plans to build 15 mi. gravel road from Reno to Purdy, on California-Nevada line. About $191,000. Federal Government will appropriate $95,500 toward cost.

Ont., Peterboro—City having plans prepared for 1 mi. concrete sidewalks and ¾ mi. asphalt or bitulithic pavement. About $67,700. W. Parsons, City Hall, engr.

BIDS DESIRED

Conn., Meriden—Until Sept. 14, by Mayor, Room 9, Town Hall, paving South Colony St. from New York, New Haven & Hartford R.R. to southerly street line of Cooper and Perkins Sts. C. P. Prann, city engr.; advertised in this issue.

N. Y., Brooklyn—Until Sept. 15, by E. Riegelmann, boro. pres., regulating and repaving with special granite on present concrete foundation roadway of Bedford Ave. from Eastern Parkway to Empire Blvd.; permanent asphalt on 6 in. concrete foundation, Bedford Pl. from Brevoort Pl. to Atlantic Ave., Bleecher St. from St. Nicholas Ave. to boro. line, Bradford St. from Dumont to Livonia Ave., Crooke Ave. from Brighton Beach R.R. to Ocean Ave., 6th Ave. from 62nd to 63rd Sts.; permanent Grade 1 granite on 6 in. concrete foundation, Tillary St. from Fulton to Washington Sts.

N. Y., New York—Until Sept. 15, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with sheet asphalt on concrete foundation, roadway of West 54th St. from 7th to 9th Aves., West End Ave. from 69th to 72nd Sts., also from 76th to 91st Sts.; granite block on concrete foundation, 4th Ave., east side, from 32nd to 34th Sts.; wood block, Front St. from Montgomery to Jackson Sts.

N. Y., S. I., St. George—Until Sept. 15, by C. D. Van Name, pres. Richmond Boro., repaving with concrete roadway of Arthur Kill Rd. from Fosters to Woodrow Rds.

Pa., Phila.—Until Sept 14, by city, grading Basel, Andrews, Pittville, Alsop, Thouron, Woolston, Ditman, Old Front, Grange and 15th Sts., Cedar Park, Walnut Lane, Wooster and Sommers Rds. and 71st Ave. (Schedule A); repairing fenders on Passyunk Ave. Bridge (Schedule B); improving Scotts Lane (Schedule C); asphalt paving A. Albanus, American, Beechwood, Benezet, Bristol, Cayuga, Cedar, Chew, Clearview, Dungan, Floyd, Glendale, Front, Grange, Greenway, Herbert, Hutchinson, Lindley, Locust, Luray, Palethorp, Palmetto, Pine, Rubicam, Ruscomb, Westmoreland, Woodstock, Lambert, 20th, 21st, 56th, 60th, 62nd, 65th, 71st, 72nd and 73rd Sts. and 69th Ave. (Schedule D); repairing asphalt pavements (Schedule E). About $650,000. F. H. Caven, dir. Pub. Wks.

Md., Baltimore—Until Sept. 15, by Bd. Awards, c/o City Register, grading, curbing and paving with old granite block on concrete base and cement concrete several streets listed in Contr. 176 and 177; grading and paving with cement concrete various alleys, listed in Contrs. 63, 64, and 65. R. K. Compton, acting ch. engr.

D. C., Wash.—Until Sept. 15, by Dist. Comrs., grading roadway and laying cement pavement.

S. C., Darlington—Until Sept. 16, by W. C. Candy, superv. Darlington Co., building 4 mi. sand-clay road from Darlington to Florence Co. line. W. S. Lewis, Florence, Div. Engr.; advertised in this issue.

Ga., Rome—Until Sept. 17, by Bd. Comrs. Rds. and Revenues, Floyd Co. grading, building ditches, shoulders, drainage structures, and top soil surfacing 7.3 mi. Federal Aid Project 151. Work involves 4.39 acres clearing and grubbing 38,950 cu.yd. common, 7,621 cu.yd. borrow and 1,178 cu.yd. solid rock excav., 4,106 cu.yd. overhaul, bridges involve 48.41 cu.yd. Class "A," 203.23 cu.yd. Class "B" and 42.80 cu.yd. Class "C" concrete, and 5,283 lb. reinforcing steel; pipe culverts involve 1,756 lin.ft. 15-30 in. pipe, 111.34 cu.yd. cement concrete in headwalls, and 17,172.5 cu.yd. surfacing.

La., New Orleans—Until Sept. 21, by W. B. Davey, city engr., paving 6,880 lin.ft. South Clairborne St. from Canal St. to New Basin, 14,600 lin.ft. South Clairborne St. from New Basin to Napoleon Ave., 6,440 lin.ft. Broad St. from New Basin Canal to Washington Ave., 6,440 lin.ft., Broad St. from Canal St. to New Basin, 9,740 lin.ft. Audubon Blvd. from Poplar to Apricot Sts.,

Streets and Roads (Continued).

1,830 cu.yd. Audubon St. from Green to Clairborne Sts., 1,970 lin.ft. Audubon St. from St. Charles to Zimple; 4,300 lin.ft. Willow St. from Napoleon Ave. to lower line Newcomb property; 4,300 lin.ft. Poplar St. from lower Newcomb property to Carrollton Ave., 4,350 lin.ft. Oak St. from Carrollton to Jefferson Aves. and 240 lin.ft. Sycamore St. from Audubon St. to Bway.

Minn., International Falls—Until Sept. 14, by Koochiching Co. and Beltrami Co. (Bemidji), grading and building bridges and culverts on 6 mi. Judicial Rd. 2, involving 5,106 cu.yd. excav. About $25,000. D. Rose, International Falls, and S. D. Snyder, Bemidji, engrs.

Minn., Thief River Falls—Until Sept. 15, by Pennington Co., constructing Federal Aid Project 83, State Rd. 4, involving 28,395 cu.yd. excav., 6,850 cu.yd. overhaul, 536 lin.ft., 12-36 in. pipe culverts, 18,044 cu.yd. mi. haul, etc. About $25,000.

Minn., Willmar—Until Sept. 21, by S. Nelson, and Kandiyohi Co., 7 mi. Federal Aid Project 31, State Aid Job 1801, State Rd., 6, 24 ft. wide. About $25,000. Noted Apr. 15.

Kan., Cimarron—Until Sept. 21, by Comrs. Gray Co., grading, graveling and building culverts on 5.795 mi. Old Santa Fe Trail, Federal Aid Project 56,16 ft. wide. About $120,000. W. Barton, Ingalls, engr.

Kan., Girard—Until Sept. 24, by Comrs. Crawford Co., grading and building culverts on 11.369 mi. Commercial Highway, Federal Aid Project 66, 18 ft. wide. About $125,000. W. J. Arnold, Girard, engr.

Missouri—Until Sept. 17, by State Highway Dept., Carrollton, building 3.67 mi. East and West State Rd., 24 ft. wide, State Aid Project S 20.7, Carroll Co., involving 1,799 cu.yd. earth excav., 30,181 cu.yd. borrow, 87.1 cu.yd. Class "B" and 11 cu.yd. Class "C" concrete masonry, 6,682 lb. reinforcement for concrete masonry, 155 lin.ft. 15-24 in. rein.-con. pipe culvert. About $28,740.

Tex., Abilene—Until Sept. 24, by City Comrs., for 10,000 sq.yd. bitulithic, asphalt macadam or concrete paving. M. L. Sellers, secy. W. A. Riney, city engr.; advertised in this issue.

Tex., Kaufman—Until Sept. 28, by J. F. Coon, judge Kaufman Co., grading, surfacing and building rein.-con. bridges and culverts on 14.86 mi. Highway 40 through Precinct 7, 15 ft. wide, involving 35.3 acres clearing and grubbing, 111,795 cu.yd. borrow, 34,086 cu.yd. earth, 105 cu.yd. structural wet and 879 cu.yd. structural dry excav., 564.4 cu.yd. Class "A" and 69.9 cu.yd. Class "B" concrete, 23,500 lb. structural steel trusses, 33,844 cu.yd. gravel, 178.3 ft. creosoted timber, 31,815 lb. structural and 50,953 lb. reinforcing steel, etc., cost $237,840; 10.54 mi. Highway 40 through Rd. Precinct 1, 15 ft. wide, 5.5 acres clearing and grubbing, 66,221 cu.yd. earth borrow, 20,073 cu.yd. earth and 203 cu.yd. structural excav., 35,675 gal. bituminous macadam, 4,330 ton cover material, 313.5 cu.yd. Class "A" and 50.2 cu.yd. Class "B" concrete, 24,787 cu.yd. gravel, 17,801 lb. structural steel rail, 30,200 lb. structural steel trusses, 110.8 M. ft. timber, 24,042 lb. reinforcing steel, etc., $206,321. Bartlett & Ranney, Inc., co. engrs.

Que., Quebec—Until Sept. 27, by B. Michaud, deputy minister of highways, macadamizing 4 mi. upper Richelieu Rd., St. Jean Co. About $65,000.

Ontario—Until Sept. 13, by W. A. McLean, deputy minister of highways, Toronto, for earth and rock work, grading and concrete structures on Provincial Highway, Yonge Twp., Cont. 118; excav. and constructing concrete bridges and culverts, Yonge Twp. Sect. A, Contr. 149. About $30,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Massachusetts—State Highway Comm., Boston, received bids building highway, Holyoke, from D. O'Connells Constr. Co., Holyoke, $50,609; Cerrini & Sons Inc., Ashland, $53,484; Lane Constr. Corp., Meriden Conn., $54,748; highway in Andover, from G. R. Salbury Inc., Providence, R. I., $39,737. Noted Sept. 2.

★**Massachusetts**—State Highway Dept., Boston, let contract building 4,200 ft. cement concrete and bituminous macadam highway, Palmer, to C. Bianchi & Co., Framingham, $44,820. Noted Aug. 26.

Mass., Boston—City received bids paving Albany St. granite block, from J. Doherty, Boston, $42,145; J. A. Sinarella, 220 Devonshire Ave., $42,322; D'Orifro Bros. Inc., Boston, $44,757. Noted Sept. 2

★**Mass., Boston**—City let contract paving Cushman Rd., Easton St., etc., sheet asphalt, to J. J. Lane, Boston, $62,072. Noted Aug. 26.

★**Mass., Boston**—Metropolitan Park Com., 18 Tremont St., let contract grading, surfacing, etc. at Bunker Hill Reservation, to J. H. Fannon, 28 Hinckley St., Somerville. About $25,000.

★**Mass., Salem**—City let contarct paving Boston St. from Grove to Goodhue Sts., asphalt, to M. McDonough Co., 620 Humphrey St., Swampscott, $46,151.

★**Conn., Bridgeport**—City let contract paving 1 mi. Seawall Blvd. at Seaside Park, Warrenite, to Warren Bros. Co., 142 Berkeley St., Boston, Mass. About $50,000. Noted Mar. 18.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received bids Sept. 1, regulating and repaving with granite block (a) Columbia St., (b) Kingsland Ave., asphalt (c) 7th Ave., (d) 57th St., asphalt block (e) 57th St., resurfacing with asphalt by heating method (f) Atlantic Ave., (g) restoring and repaving where directed from C. Gallagher, (a) $76,176; Grecco Bros., 172 Russell St., (a) $76,842, (b) $29,674; F. J. Gallagher, (a) $77,042; Contractors Serv., 50 Church St., (b) $30,928; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (c) $7,463, (d) $18,771; Consolidated Asphalt Paving Co., 52 9th St., (c) $7,508, (d) $19,279, (f) $109,496; Uvalde Asphalt Paving Co., 1 Bway., (c) $7,987, (d) $19,482, (f) $112,421, (g) $190,000; T. E. McCormick, (e) $20,353; Hastings Paving Co., 25 Broad St., (e) $21,682; Sicilian Asphalt Paving Co., 11 Park Row, (g) $173,750. Noted Aug. 26.

★**N. Y., Long Island City**—City let contract paving Ash St., to Kennedy & Smith, 94 Main St., Flushing, $7,898; Bway., to Sicilian Asphalt Paving Co., 41 Park Row New York City, $225,590; Metropolitan Ave., to Welsh Bros., 14 Queens St., Astoria, $13,135; 97th St., to Hastings Paving Co., 25 Broad St., New York City, $97,680; 97th St., to Cleveland-Trinidad Paving Co., 3409 Kumbull St., Cleveland, O., $66,055; Opdyke St., to Pease Bros., 38 Park Row, New York City, $4,075; Stockholm St., to Union Paving Co., Bway. and 112th St., New York City, $8,412; crosswalks from Woodside to Stryker Aves., to C. Kurth, $6,576; Grandview Ave., to C. A. Myers, Stagg St., Brooklyn, $10,655. Noted Sept. 2.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract regulating and repaving West 54th St., sheet asphalt, and Hudson St., wood block, to W. J. Fitzgerald, 547 West 45th St., $42,758 and $109,131 respectively. Noted Aug. 26.

★**New Jersey**—State Highway Comm., Trenton, let contract paving 22,910 sy.yd. State Highway 1, Sect. 9, Milton Ave., Rahway to Rahway-Linden line, bituminous concrete to M. I. Demarest, Sewaren, $204,485; 22,382 sq.yd. Sect. 10, Rahway-Linden line to Roselle Boro, bituminous concrete, to C. H. Winans, 207 Broad St., Elizabeth, $214,296; 27,007 sq.yd. Sect. 11, Roselle Boro. to Elizabeth city line, bituminous concrete, to J. Doran, Irvington, $237,489. Noted Aug. 19.

★**N. J., Camden**—Camden Co. let contract building 1.17 mi. road between Gloucester Pike and Hadonfield, to Sutton & Corson, 9th and Simpson Sts., Ocean City, $68,811.

★**N. J., New Brunswick**—Comrs. Middlesex Co. let contract laying 24,332 sq.yd. Warrenite bitulithic pavement on 6 in. concrete base, to T. H. Riddle, 102 Church St.

Maryland—State Rds. Comn., 601 Garrett Bldg., Baltimore, received bids Aug. 31, building 1.4 mi. Legislative Rd. between Marantown and Allegany, (Contr. A-18), from S. T. Brotemarkle, Maple St., Cumberland, $73,594; 2.14 mi. Mountain Rd. from end of concrete sec. to Jacobsville (Contr. AA-19), from Christhilf & Ensey, Munsey Bldg., Baltimore, $75,008; 2.04 mi. Hereford Rd. (Contr. B-38), from T. Bresnan & Sons, 2018 West North Ave., Baltimore, $100,583. Noted Aug. 26.

★**Md., Baltimore**—Bd. Awards, c/o City Register, let contract grading, curbing and paving Lanvale St., Lauretta, Wheeler, Warwick, Oswego and Charlotte Aves. (Contr. 178), to Baltimore Asphalt Block & Tile Co., Laurens & Monroe Sts., $66,157. Noted Aug. 12.

★**W. Va., Glenville**—Comrs. Gilmer Co. let contract grading 5 mi. Glenville-Linn Rd., to C. F. McQueen, Charleston, $61,402.

★**North Carolina**—State Highway Comn., at div. office, Greensboro, received bids top soiling (a) 10.04 mi. Federal Aid Project 101 A, Randolph Co., (b) 6.58 mi. Federal Aid Project 38, Caswell Co., (c) 4.68 mi. Federal Aid Project 82, Davidson Co., (d) 20.6 mi. Federal Aid Project 98 A, Moore Co., (e) hard surfacing 5 mi. Federal Project 125, Alleghany Co., all 16 ft. w from F. W. Chandler, Virgilina, Va. $116,345, (e) $150,225; S. L. Davis, A marle, (a) $116,059; J. A. Kreis, Hol Bank Bldg., Knoxville, Tenn., (a) $123 (d) $170,503, (e) $125,130; Bolton Co Co., Marion, (b) $46,256, (d) $164,980 W. Gregory & Co., Virgilina, Va., (b) $ 587; J. T. Plott, Greensboro, (b) $50 (c) $32,328, (d) $150,246; C. A. He Winston-Salem, (c) $28,714; Jam Bros., Rocky Mt., (c) $32,213; W. Graham, Mt. Ulla, (e) $133,033. No Aug. 12.

Alabama—State Highway Comn., Mo gomery, received bid surfacing and dra ing 16,600 ft. road from Brown Sta Perry Co. line, 16 ft. wide, Dallas Co. involving 7,400 cu.yd. gravel surfacing an 12,672 cu.yd. earth excav., from L. Rawlinson, Montgomery, $48,748. Not Aug. 26.

★**Ala., Montgomery**—City let contra paving various streets, involving 6,8 sq.yd. Warrenite-bitulithic on 6 in. con crete base, to Jamison & Hollowell, 83 North Court St.

Ohio—State Highway Dept., Columbus received bids Sept. 3, building roads in following counties:

Ashtabula Co., Sects. "C" and "D" Cleveland-Meadville Rd., 6.7 mi., grading ditches widening pavement and resurfacing with macadam from Seipel & Wolf Constr. Co Youngstown, $166,987.

Belmont Co., Sect. "M" Bellaire-Barnesville Rd., 2.999 mi., grading roadway and building drainage structures, L. B. Wilson Newark, $50,502; C. J. Breckenridge, Columbus, $51,507; H. M. Saxbe, Urbana $52,358.

Crawford Co., Sect. "A" Shelby-Galion Rd., 2.424 mi., grading, constructing bridges and culverts and paving with bituminous macadam, J. C. McCann, Columbus, $87,621; R. M. Hayes, Attica, $89,572.

Geauga Co., Sect. "G" Cleveland-Meadville Rd., building bridge, G. A. Stein, 727 Vienna Ave., Niles, $7,275; Henderson Bros., Dayton Falls, $7,320.

Jackson Co., Sect. "F" Chillicothe-Jackson Rd., 1.85 mi., grading, constructing bridges and culverts and paving with bituminous macadam, J. Petrie, Logan, $61,874; Neff & Rader, Circleville, $62,161.

Sect. "K" Chillicothe-Jackson Rd., 2.332 mi., grading, constructing bridges culverts and paving with bituminous macadam, Neff & Rader, Circleville, $109,275.

Lorain Co., Sect. "T" Oberlin-Elyria Rd., 1.69 mi., grading, constructing bridges and culverts and paving with brick, A. J. Baltes, Norwalk, (State to furnish brick), $25,564; Ohio Eng. Co., Elyria (brick included), $42,230.

Mahoning Co., Sect. N-2 North Lima-East Palestine Rd., 0.65 mi., grading, constructing bridges and culverts and paving with brick, (1) state to furnish brick, (2) contractors to furnish brick, from J. McCarron, 1343 Kensington Ave., Youngstown, (1) $17,895, (2) $27,738; J. Karch, Celina, (1) $18,399; G. A. Gialdini & Son, Girard, (2) $26,744.

Paulding Co., Sect. "A-2" Payne-Hicksville Rd., 2.019 mi., grading, constructing drainage structures and paving, T. B. Putnam, Antwerp (bituminous concrete), $70,130; (Kentucky rock asphalt), $76,772.

Sect. "G" Paulding-Woodburn Rd., 2.023 mi., grading, constructing drainage structures and paving with (Kentucky rock asphalt), J. M. Roach, Defiance, $77,771; P. B. Putnam, Antwerp, $76,927 (bituminous macadam), $73,124.

Scioto Co., Sect. "R-1" Ohio River Rd., 3.692 mi., grading, constructing bridges and culverts and paving with brick, Harper & Rhul Co., Portsmouth, $203,540.

Van Wert Co., Sect. A Van Wert.-Ft. Wayne Rd., 5.826 mi. grading, building bridges and culverts and paving with (1) rein.-con., (2) bituminous concrete, (3) Kentucky rock asphalt, (4) bituminous macadam, from Putnam & Shingledecker, Van Wert, (1) $255,748, (2) $207,045, (3) $240,851; Dorsey Constr. Co., Findlay, (1) $260,175; C. V. Rector, Centennial Rd., Muncie, Ind., (4) $208,745.

Ashtabula Co., Sect. "E" Jefferson-Andover Rd., 1.22 mi., resurfacing old concrete road with three-inch brick, and one-inch granulated slag cushion, C. G. Fuller, Conneaut, $35,054.

Cuyahoga Co., Sect. "C-1" and "C-2" Cleveland-Elyria Rd., 8.021 mi., widening pavement by the addition of a five-foot water bound macadam strip and resurfacing dirt road, Ohio Contg. Co., Elyria, $60,180; W. D. Winchell & Co., 337 Siebert St., Columbus, $61,880; Elyria Construction Co., $62,800. Noted Aug. 26.

O., Cleveland—City received bids grading, draining and paving (a) Chester Ave. from East 12th to 17th Sts., involving

Streets and Roads (Continued)

...00 cu.yd. earth excav., 5,550 sq.yd. asphalt, 50,300 sq.ft. 4 in. concrete base, (b) East 140th St. from St. Clair to Aspinwall Ave., 14,298 cu.yd. earth excav., 9,350 sq. yd. vitr. brick, 91,450 sq.ft. 6 in. concrete base, from Cleveland Trinidad Paving Co., The Arcade, (a) $26,387; Riley Bros., The Arcade, (a) $33,955, (b) $90,103; Gould & Taybeck, 823 East 150th St., (b) $88,513; Miller Constr. Co., 12109 Mayfield Rd., (b) $89,172.

O., Euclid—Village received bids grading and building sidewalks on (a) Azalia Drive, (b) Priday Ave., (c) Foxton Ave., (d) Morris Ave., (e) Midland Rd., (f) Westport Ave., (g) Wilmore Ave., (h) East 130th St., (i) Arms Ave., involving 4,800 cu.yd. grading, 84,700 sq.ft. 2½ in. blue stone sidewalk, from V. G. Gallier, Rose Bldg., Cleveland, (a) $3,335, (b) $3,394, (c) $3,315, (d) $3,440, (e) $5,593., (f) $3,289, (g) $3,455, (h) $4,367, (i) $1,393; F. B. Stein, Euclid, (a) $3,437, (b) $3,437, (c) $3,437, (d) $3,437, (e) $5,587, (f) $3,437, (g) $3,437, (h) $4,110, (i) $1,347. Noted Aug. 12.

O., Shaker Heights—Village received low bids from Cleveland Trinidad Paving Co., The Arcade, Cleveland, grading, draining, curbing and paving with asphalt Lindholm Rd. from Scotsdale Rd. to Van Ness Blvd., $28,624; Strathavon Rd. from Scotsdale to Kenyon Rds., $34,134; Strand Hill Rd. from Scotsdale to Sharington Rds., $33,715; Rolliston Rd. from Scotsdale Rd. to Van Ness Blvd., $26,585; Engleside Rd. from Scotsdale to Kinsman Rds., $32,016; Sharington Rd. from Scotsdale to Palmeston Rds., $19,402. Work involves 30,185 sq.yd. asphalt, 44,475 cu.yd. grading, 262,500 sq.ft. 4-5 in. concrete base, 22,650 cu.ft. stone curbing and guttering.

O., South Euclid—Village received low bids for (1) building 2½ in. stone sidewalks, (2) grading (a) Stilmore Rd., (b) Wingate Rd., (c) Harwood Rd., (d) Miramar Blvd., (e) Hinsdale Rd., (f) Verona Ave., involving 42,000 cu.yd. grading, from Cleveland Stone Co., 1836 Euclid Ave., Cleveland, (1a) $8,845, (1b) $8,845, (1c) $8,845, (1d) $8,545, (1e) $8,545, (1f) $10,585; Ohio Stone Co., Citizens Bldg., Cleveland, (1a) $8,992, (1b) $8,992, (1c) $8,992, (1d) $8,644, (e) $8,992, (1f) $10,765; T. Vaughn, c/o F. A. Pease Eng. Co., Marshall Bldg., Cleveland, (2a) $6,335, (2b) $4,795, (2c) $6,975, (2d) $9,680, (2e) $5,570 (2f) $7,260; Ward Bros., 8912 Hough Ave., Cleveland (2a) $6,575, (2b) $4,960, (2c) $6,910, (2d) $8,874, (2f) $7,524.

★**Mich., Detroit**—City let contract to Detroit Asphalt Paving Co., 20 McGraw Bldg., furnishing labor and material grading, curbing and paving with sheet asphalt on 8 in. concrete base, Ashland Ave. from Jefferson St. to south line of Lots 270 and 299, $9,669, Chalmers Ave. from Charlevoix to Mack Aves., $30,866, Green Ave. from Cahalan to Ferndale Sts., $28,194, Marlborough Ave. from Waterloo to Charlevoix Aves., $21,164, Philip Ave. from Kercheval to Mack Aves., $64,749; to Otis Cement Constr. Co., 806 Hammond Bldg., paving with 1 course concrete, alley 1193 between 12th, 10th, La Brosse and Baker Sts., $9,872. Noted Aug. 26.

★**Mich., Sault Ste. Marie**—Comrs. Chippewa Co. will grade, surface and drain 3.084 mi. State Trunk Line Rd. 25-16, 16 ft. wide. About $27,000. Work will be done by day labor. Noted Aug. 5.

★**Ill., East St. Louis**—City let contract paving 800 ft. Cleveland Ave., 36 ft. wide, from 16th to 18th Sts., involving 1,550 lin.ft. concrete curbing and 3,200 sq.yd. vitr. brick to McCabe & Co., East St. Louis, $18,750; removing present pavement and laying wood block on concrete base on 1,800 ft. Collinsville Ave. from Bway. to Illinois St., 36 ft. wide, to H. H. Hall Constr. Co., East St. Louis, $46,610; removing present pavement and paving with sheet asphalt on new concrete base 2,500 ft. Collinsville Ave. from 10th St. to St. Louis Ave., 36 ft. wide, to Concord Constr. Co., East St. Louis, $53,880.

Wisconsin—State Highway Dept., at div. office 2, Stephenson Bldg., Milwaukee, received bids Aug. 23, paving Milwaukee-Fond du Lac Rd., Federal Aid Project 160, Menomonee Falls, from Czerwinski Constr. Co., 113 Reed St., Milwaukee, $39,108; Kroening Constr. Co., 708 Majestic Bldg., Milwaukee, $40,039; C. Johnson, Hay Bldg., Oshkosh, $42,066.

Wis., Menomonee Falls—City received bids grading, surfacing and excavating 1.7 mi. Main St., 18 ft. wide, concrete from A. Czerwinski, Milwaukee, $39,108; Kroenig Constr. Co., 708 Majestic Bldg., Milwaukee, $40,039; C. Johnson, 75 Main St., Oshkosh, $42,066.

★**Wis., Neenah**—Wisconsin & Northern R.R., Old 1st Natl. Bank Bldg., Appleton, let contract grading and excavating 5 mi. rail extensions between Wisconsin & Northern R.R. and Minneapolis, St. Paul & Sault Ste. Marie R. R., involving 135,000 cu.yd. excav., to Morris & Dougherty, 815 Globe Bldg., St. Paul, Minn. About $125,000; cost plus percentage basis.

★**Minn., St. Paul**—City will pave 16 blocks Arcade St. between Maryland St. and north city limits, asphaltic concrete. Former bids rejected. Work will be done by day labor. Noted Aug. 26.

★**Kan., Leavenworth**—Leavenworth Co. let contracts for (a) grading, (b) building bridges and culverts, on (1) Sect. A, (2) Sect. B, (3) Sect. D, Fort to Fort Highway, Federal Aid Project 52, to Davidson Constr. Co., Kansas City, Mo., (1a and 1b) $64,837, (2b) $15,673, (3b) $6,978; Blue Valley Constr. Co., Manhattan, (2a) $29,037. Noted Aug. 26.

★**Kan., Oswego**—City let contract paving 4 blocks main streets, 25 ft. wide, to J. B. Watts Constr. Co., Concordia, $100,146. Noted Aug. 5.

★**South Dakota**—State Highway Comm., Aberdeen, let contract grading and draining 21.1 mi. Yellowstone Trail from James west through Aberdeen to west county line, Federal Aid Project 42, Brown Co., to H. C. Hansen, Groton, $114,696; 10.7 mi. Yellowstone Trail from Summit to west county line, Federal Aid Project 44, Roberts Co., involving 52,113 cu.yd. excav., 61,628 cu.yd. overhaul, 30,100 lb. reinforcing and 14,412 lb. structural steel, etc., also 16.5 mi. road west and south of Leola, Federal Aid Project 63, McPherson Co., 86,475 cu.yd. overhaul, 598 cu.yd. loose rock and 90,382 cu.yd. earth excav., etc., to Stevens Bros., St. Paul, Minn., $74,450 and $91,436 respectively. Noted July 22.

Missouri—State Highway Dept., St. Joseph, received bids Aug. 20, building .376 mi. Frederick Ave. Rd., 29 ft. wide, Federal Aid Project 94, from Land Constr. Co., Ballinger Bldg., St. Joseph, $30,996, work involves 239 cu.yd. earth excav., $1 per cu.yd., 2,960 cu.yd. borrow, $1, 6,434 sq.yd. each plain cement concrete base course, and bituminous surface course specification "B," $2.15 and $1.27 respectively, 3,785 lin.ft. combination curb and gutter, $1.50, 240 lin.ft. plain concrete gutter, $0.48; 20.02 mi. Sect. D, St. Joseph-Atchison Rd., 24 ft. wide, Federal Aid Project 49, from Lynch-McConnell, Moberly, $809,885, work involves 211,454 sq.yd. 1 course plain concrete pavement, $3.78, 10,805 lin.ft. wooden guard rail, $0.98. Noted July 29 and Aug. 5.

★**Mo., King City**—Jackson Twp. let contract paving 8 mi. Jefferson Highway, 18 ft. wide, Gentry Co., bituminous concrete, to Land Constr. Co., Ballinger Bldg., St. Joseph, $74,560.

Tex., Amarillo—Potter Co. received bids improving 14.7 mi. Highway 5, Federal Aid Project 162, 18 ft. wide, (a) grading road, involving 61,371 cu.yd. borrow, (b) building concrete culverts, (c) constructing steel span bridge, (d) surfacing road, involving 40,583 cu.yd. gravel and 7,158 cu.yd. clay, from H. F. Keller & Sons Amarillo, (a) $70,507; Lacy & Burgess, Dallas, (a and b) $31,097, (d) $135,712; Austin Bros., Bridge Co., 1815 Coombs St., Dallas, (b and c) $17,655; Sanders Bros., Miami, (d) $139,048; Womack Constr. Co., Sherman, (d) $146,087. Work involves 165.3 cu.yd. Class "A" concrete, 13,667 lb. reinforcing steel, 5,891 cu.yd. earth and 173 cu.yd. structural excav. Noted July 22.

Tex., Canyon—Randall Co. received bids Aug. 18, grading and draining 17.1 mi. Highway 33 from here to Deaf Smith Co. line, 24 ft. wide, from McKnight & Howell, Amarillo, $25,340; D. L. Hickcox, Canyon, $27,792; J. F. Hamer, Ft. Worth, $29,727. Work involves 189 cu.yd. earth, 6,938 cu.yd. borrow and 250 cu.yd. structural excav., 193.3 cu.yd. Class "A" concrete and 15,477 lb. reinforcing steel. Noted July 29.

★**Tex., Spur**—Dickens Co. let contract improving 7.5 mi. Highway 37 from here to Crosbyton, 18 ft. wide, (a) scarifying, reshaping, grading and surfacing with gravel, (b) building rein.-con. drainage structures, to C. L. Douglas, Spur, (a) $21,720; C. Whitner, Spur, (b) $16,109; both including 10% for engineering and contingencies. Noted Aug. 26.

★**Oklahoma**—State Highway Dept., Oklahoma, let contracts building 6 in. concrete pavement on 1⅞ mi. State Highway 20 ft. wide, Kingfisher Co., to Gibson & Mitchell, Pauls Valley, $58,797; gravel surfacing, draining and building bridges on 6 mi. State Highway, 18 ft. wide, Comanche Co., to Allen & Harrison, Oklahoma, $73,401.

★**Utah, Salt Lake City**—City let contract paving various streets, involving 8,040 sq.yd. Warrenite bitulithic pavement on 4 in. bituminous concrete base, to Moran Paving Co., Felt Bldg.

★**Utah**—Salt Lake City—Salt Lake Co. let contract paving various streets, involving 26,400 sq.yd. Warrenite bitulithic pavement on 4 in. crushed stone base, to Gibbons & Reed, Kearns Bldg.

★**Wash.**, Seattle—King Co. let contract grading and paving 5.6 mi. Vashon Island Highway, 16 and 18 ft. wide, to Kaiser Paving Co., 304 West 36th St., $183,911. Noted April 15.

★**Wash., Tacoma**—Pierce Co. let contract paving 2 mi. Burnett-Wilkeson Rd., to S. A. Mocert, Alaska Bldg., Seattle, $50,860.

★**Ore., Astoria**—City let contract to Northwest Constr. Co., Portland, paving Exchange St., $92,901; Franklin Ave., $63,718; and Commercial and 23rd Sts. $32,603.

★**Ontario**—Dept. Pub. Rds., Toronto, let contract building 1¼ mi. asphalt pavement on Ancaster Rd. between Hamilton and Brantford, to Warren Bituminous Paving Co. Ltd., McKinnon Bldg., Toronto. About $125,000.

★**Ont., York**—Township let contracts building sidewalks on Appleton, Vimy Ridge E. and Vimy Ridge W. Aves. and Humewood Drive, to Scott, Maddock & Mitchell, 48 Alexander St., Toronto, $4,500; Arlington and Pritchard Aves., to Natl. Contg. Co., Toronto, $8,125; Bee St., to D. McKay & Co., 81 Redwood Ave., Toronto, $2,209; Boon, Crang and Dychwood Aves., to Ramsay Contg. Co., 39 Indian Rd., Crescent, Toronto, $20,770; Bernice Crescent, Summit, Rogers and Westmount Aves., to Angotti & Smythe, 819 St. Clarens Ave., Toronto, $12,725; Caesar, Hector and Homer Aves., to R. H. H. Blackwell, Aurora, $3,376; Cedarvale Ave., Don Mills Rd. E., and Don Mills Rd. W., to Walton & Rowell, Toronto, $9,898; Ellis, Welland and Willard Aves., to Gimthorpe Rd., to Grant Contg. Co., 50 Front St. E., Toronto, $13,327; also repairs to Lauder Ave., $0.40 per sq.ft. and curbing $0.75 per lin.ft.; Lumsden Ave. and Jane St., to A. Covotte, Toronto, $5,427; George and Main Sts., to A. E. Jupp Constr. Co., 47 Sparkhall Ave., Toronto, $4,080; Woodbine Ave., to E. W. Deere, Toronto, $7,535; Beechwood, Eileen and Summerville Aves., to J. B. Moogk, Weston, $13,597; Kenwood Ave., to W. B. Hughes, 53 Victoria Park Ave., Toronto, $5,130; Torrens Ave., to A. Johnson, 112 Ivy Ave., Toronto, $8,060.

Railways

PROPOSED WORK

Texas—San Antonio & Rio Grande Valley R.R., San Antonio, organized to build 300 mi. line from San Antonio to Brownsville and Port Isabel. J. B. Carrington, 401 Grayburg Bldg., San Antonio, secy.

Ontario—City of Toronto plans to build double track street car line on Bloor St. from Runneymede Rd. to Jane St., ½ mi. long. About $104,245. R. C. Harris, city engr.

Excavation and Dredging

PROPOSED WORK

Ill., East St. Louis—Levee—East Side Levee & Sanitary Dist., 225 Collinsville Ave., plans to build levee and canal for draining city, involving 707,500 cu.yd. canal excav., 373,000 cu.yd. canal excav. hauled, 15,000 cu.yd. miscellaneous excav., 250,000 cu.yd. embankment borrowed and 3,400,000 sq.ft. trimming, grading and sloping. About $600,000. W. E. Putnam, East St. Louis, engr. Noted Aug. 5.

Ia., Marengo—Drainage—A. H. Hunter, aud. Iowa Co., rejected bids received Aug. 26, building D.D. 8. About $100,000. Noted Aug. 19.

Minn., Blue Earth—J. L. Herring, aud. Faribault Co. soon receives bids building Co. Ditch 48, involving 20 mi. open work, 2,000,000 cu.yd. excav. C. K. Haggar, Blue Earth, engr.

Idaho, Boise—Drainage—Ada Co. D. D. 2 rejected bids received June 3, for 24 mi. open drains, 1,750,000 cu.yd. excav., 22 mi. tile drains, bridges, culverts and flumes, in Ada and Canyon Counties. About $425,000. K. V. Keener, Boise, engr. Noted May 13.

Cal., Gridley—Ditch—Sutter Butte Canal Co. plans to build additions to ditch system in Sutter and Butte Counties. About $200,000.

Cal., Honcut—Canal and Irrigation—Honcut-Yuba Irrigation Dist. has submitted plans to state engineer for canal and irrigation reservoir system. Plans include impounding dam at Virginia ranch, in Yuba Co., catchment basin of above reservoir is 194,880 acre-ft. Total cost, $1,780,636. V. P. and F. T. McCray, engrs.

BIDS DESIRED

Ia., Oskaloosa—Ditch—Until Sept. 18, by R. W. Varley, aud. Mahaska Co., building 7.6 mi. ditch in North Skunk River Valley, within D.D. 5, involving 429,158 cu.yd. excav.; advertised in this issue.

Ia., Wapello—Drainage—Until Sept. 22, by Bd. Supervs. Louisa Co., furnishing labor and material for drainage work in D.D. 22 and 23. F. G. Wright, co. aur.; advertised in this issue.

Minn., Mankato—Until Sept. 15, by C. L. Kennedy, aud. Blue Earth Co., building Co. Ditch 59, involving 128,805 lin.ft. 8-32 in. tile, 1 concrete headwall, cost $49,107; Co. Ditch 56, 40 400 lin.ft. open work, 261,813 cu.yd. spoil banks, 157,410 lin.ft. 8-28 in. tile; 49 branches and laterals, 7,531 tons tile, 20 concrete headwalls, also 225 cu.yd. rein.-con. dam at outlet of Crystal Lake, $196,770.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Wyo., Basin**—Drainage—Alamo D. D. let contract building 51,182 ft. closed tile drain, 9 ft. deep, to Lovell Constr. Co., Lovell. About $85,000.

★**Tex., Corsicana** — Canal and Levee — Navarro Co. let contract building 5 mi. canal and 6 mi. levee in Levee Dist. 8, to Ennis Constr. Co., Ennis.

★**Ont., Tilbury**—Dredging—Township let contract dredging Merlin Drain, involving 100,000 yd. wet excav., to Chatham Dredging Co., Chatham. About $40,000.

Industrial Works

PROPOSED WORK

Me., Skowhegan—Central Maine Power Co., 40 Water St., Augusta, plans to build 40 x 180 ft. hydroelectric plant, here. About $1,350,000. F. H. Mason, ch. engr. J. A. Leonard, resident engr.

Mass., Worcester — L. S. Beardsley, archt., 116 West 39th St., New York City, soon lets contract building 2 story, 100 x 130 ft. concrete, brick and steel bakery, rein.-con. flooring, concrete foundation, on Main St., here, for Grocers Bread Co. About $100,000.

Mass., Worcester—T. Hanson, 873 Main St., soon lets contract building 2 story, 90 x 90 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation. About $75,000. E. T. Chapin, 310 Main St., archt. Noted June 3.

N. Y., Long Island City—Allied Printing Assn. of Manhattan, c/o W. E. Austin, archt. and engr., 46 West 24th St., New York City, having plans prepared for 9 story, 80 x 400 ft., rein-con., brick and steel plant, rein.-con. flooring, concrete foundation, on Jackson Ave. near Harold St.

N. J., Bridgeton—Illinois Glass Co. plans to build new plant. Cost including machinery, $3,500,000. A Godfrey, genl. mgr.

N. J., Camden—B. H. Lackey, archt., 509 Federal St., preparing plans for 2 story, 60 x 135 ft., rein.-con. factory. Owner's name withheld.

N. J., Hoboken — Ballinger & Perrott, engrs. and archts., 47 West 34th St., New York City, soon let contract building 2 story, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Clinton St., for Chocolate Menier, 1127 Clinton St. About $100,000.

N. J., Newark—New Jersey Ice Cream Co., 316 Mt. Pleasant Ave., having plans prepared by Voss & Lauritzen, archts. and engrs., 65 De Kalb Ave., Brooklyn, for 3 story, 35 x 35 ft., brick, rein.-con. and steel plant, rein.-con. flooring, concrete foundation. About $100,000.

N. J., New Brunswick—Western Sulphur Co. plans to build fertilizer plant. About $150,000. J. G. Lipman, c/o State Agricultural College, pres.

N. J., Woodlynne (Camden P. O.)—Camden Ice Co., c/o B. H. Lackey, archt., 509 Federal St., Camden, plans to build ice plant and coal yards, here.

Pa., Altoona—H. C. Prutzman & Co., 817 Green Ave., plans to build 3 story, 60 x 120 ft. concrete, brick and steel warehouse on 9th Ave. and Green St. About $100,000. Architect not selected.

Pa., Frankford (Phila. P. O.)—G. B. Roth, archt., 1629 Chestnut St., Phia., preparing plans for 2 story, 100 x 190 ft., concrete and brick factory, here. Owners name withheld.

O., Cleveland—Concrete Steel Co., Guardian Bldg., plans to build 1 story, 70 x 200 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete and brick foundation, on Berea Rd. About $75,000. W. Bright, mgr. Private plans.

O., Cleveland—R. C. Koblitz, 703 Canal Rd., plans to build 2 story, 72 x 110 ft., brick and steel factory and warehouse, brick foundation, on East 11th St. and Hamilton Ave. About $50,000. P. Matzinger, Coxton Bldg., archt.

O., Cleveland—Natl. Carbon Co., West 117th St. and Madison Ave., plans to build 1 story, rein.-con., brick and steel addition to factory, rein.-con. flooring, brick and concrete foundation. About $150,000. R. R. Magee, c/o Natl. Carbon Co., archt.

O., Cleveland—Natl. Lamp Wks. of General Electric Co., Nela Park, plans to build 3 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation on Alonzo Ave. near Aetna Rd. About $300,000. G. H. Johnson, Nela Park, engr. and archt.

O., Cleveland—Windaw Tool Co., purchased site at 1565 East 17th St and plans to build 1 story, 46 x 130 ft., brick and steel addition to factory, brick foundation. About $50,000. E. Windaw, pres.

O., Lakewood (Cleveland P. O.)—L. S. Brooker, 11717 Detroit Ave., Cleveland, purchased site and plans to build 1 story brick addition to factory, brick foundation. About $50,000. Architect not selected.

Ind., Sullivan—Mutual Truck Co. had plans prepared by Shourds-Stoner Co., archts., Tribune Bldg., Terre Haute, for 1 story, 200 x 800 ft., brick and steel (monitor type) factory, rein.-con. flooring. About $100,000.

Mich., Detroit—Modern Sales & Service Co., 33 Woodward Ave., plans to construct 1 story, 110 x 425 ft., rein.-con. and brick auto service building, rein.-con. flooring, concrete foundation, on Jefferson Ave. and Du Bois St. About $200,000. Architect's name withheld.

Ill., Chicago—Borden Farm Products Co., 136 West Lake St., had plans prepared by E. E. Roberts, archt., 105 North Clark St., for 3 story, 115 x 210 ft., brick, rein.-con. and steel bottling plant, rein.-con. flooring, concrete foundation, on Clybourn Ave and Division St. About $250,000. Westcott Eng. Co., 111 West Washington St., engrs.

Ill., Chicago — Z. Dicker, 511 South Paulina St., plans to build 10 story, 99 x 150 ft. warehouse, on State and Kinzie Sts. About $1,000,000. Architect and engineer's name not announced.

Ill., Chicago—H. O. Reno Co., 123 West Madison St., had plans prepared by P. T. Johnstone, archt., 1254 Pratt Blvd., for 5 story, 125 x 160 ft. factory, on Best and Wrightwood Sts. About $225,000.

Wis., Manitowoc—Jacquet Motor Corp. having plans prepared by H. B. Kamschulte, archt. and engr., Manitowoc, for 3 story, 150 x 300 ft., trunk factory, brick, rein.-con. and steel, rein.-con. flooring, brick foundation, on Main St. Cost between $50,000 and $75,000.

Wis., Milwaukee—See "Sewers."

Wis., Milwaukee—Wisconsin Food Products Co., Berlin Arcade, having plans prepared by Kirchhoff & Rose, archts., Majestic Bldg., for 1 story, 60 x 200 ft., brick, concrete and steel garage, concrete flooring and foundation, on Port Washington Rd.

Wis., New London — Borden Condensed Milk Co., 136 West Lake St., Chicago, preparing plans for 4 story, 60 x 250 ft., brick, rein.-con. and steel factory, rein.-con. flooring brick foundation, here. About $100,000. Private plans.

Wis., Sheboygan—South Side Garage Co., South 12th St. and Indiana Ave., having plans prepared for 2 or 3 story, 50 x 150 ft., brick, rein.-con. and steel garage, rein.-con. flooring, brick foundation, on Indiana Ave. About $100,000. Private plans.

Wis., Wauwatosa—Milwaukee Co., c/o Bd. Administration, plans to build 1 story, brick and steel, central heating plant, to supply insane asylum, poor house, hospital, etc. Cost including equipment $300,000. W. Caffey, secy. Architect and engineer not selected.

Wis., West Bend—Schmidt & Storck Wagon Co., Mill St., having plans prepared by Buemming & Guth, archts., 521 Jackson St., Milwaukee, for 2nd unit of wagon factory, 1 story, 100 x 270 ft., brick, rein.-con. and steel, brick foundation, on Main St. About $70,000. Noted June 10.

Minn., Minneapolis — Amer. Harvester Co., 1701 Madison St. N. E., receives bids in spring building 1 story, 80 x 160 ft. rein.-con., brick and steel plant. Private plans.

Kan., Leavenworth—Abernathy Furnace Co. plans to build factory. About $125,000. Architect not selected.

Kan., Leavenworth—Great Western Stove Co., 2nd and Choctaw Sts., plans to build factory. About $135,000. Architect and engineer not selected.

Kan., Ottawa—See "Waterworks."

Kan., Topeka — Ismert — Hincke Milling Co., 10th and Washington Sts., having plans prepared by E. E. Rcamell, archt., 424 N. E. Bldg., for 2 story, rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation. About $100,000.

Mo., Kansas City—Ford Motor Co., Highland Park, Detroit, Mich., having plans prepared by A. Kahn, archt., Marquette Bldg., Detroit, for 2 story, rein.-con. and brick service station, rein.-con flooring, concrete foundation, here. About $150,000.

Mo., St. Louis—C. F. May, archt., Wolf Bldg., soon receives bids building 2 story, 60 x 140 ft., brick and steel factory, on Bway., for Schlueter Mfg. Co., Bway and John St. About $80,000.

Okla., Oklahoma—Woods Produce Co., 207 North Bway., having plans prepared by Monnot & Reid, archts., 409 Empire Bldg., for 1 story, 100 x 140 ft., brick, rein.-con. and steel warehouse, rein.-con. flooring, concrete foundation. About $100,000.

Ont., Collingwood—Imperial Steel & Wire Co. had plans prepared and soon receives bids building 3 story, concrete, brick and steel factory, concrete foundation. About $150,000. P. C. Palin, Hurontario St., archt. and engr.

Ont., Midland—Copeland Flour Mills plan to build concrete and brick mill, here. About $250,000.

Ont., Toronto—Canada Bread Co., 160 Avenue Rd., plans to build 3 story, rein.-con., brick and steel bakery, rein.-con. flooring, concrete foundation, on Danforth Ave. About $250,000. Architect not selected.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Andover** — Amer. Woolen Co., Lawrence, let contract building 3 story, rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on Argyle St., here, to Turner Constr. Co., 178 Tremont St., Boston. About $100,000.

★**Mass., Dorchester** (Boston P. O.)—Byrne Realty Co., 435 Geneva Ave., will build 1 story, 95 x 165 ft., brick and concrete addition to garage, rein.-con. flooring, concrete foundation, on Holmes Ave. About $50,000. Work will be done by day labor. Noted July 22.

★**Mass., Fall River**—Amer. Printing Co., 56 Water St., will build power plant with brick chimney, also 1 story, 44 x 133 ft. and 1 story, 100 x 119 ft. factory, with 2 ells, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $165,000. Work will be done by day labor. Noted Aug. 26.

★**Mass., Fall River**—New England Oil Corp. let contract building rein.-con. and steel plant, to include pumping station, several 55,000 gal. oil storage tanks, equipment, etc., to Unit Constr. Co., 299 Madison Ave., New York City. About $5,000,000.

★**Mass., Greenfield**—Greenfield Tap & Die Corp., Sanderson St., let contract building 5 story, 60 x 210 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, to W. M. Bailey Co., 88 Broad St., Boston. About $250,000. Noted Aug. 19.

★**Mass., Turners Falls**—Greenfield Tap & Die Corp., Sanderson St., let contract building 1 story, 50 x 100 ft. and 25 x 41 ft. brick, rein.-con. and steel addition to forge plant, rein.-con. flooring, concrete foundation, to W. M. Bailey Co., 88 Broad St., Boston. About $50,000. Noted Aug. 19.

★**Mass., Wakefield** — Heywood Bros. & Wakefield Co., 206 Central St., let contract building 1 story, rein.-con. and brick addition to dry kiln plant, rein.-con. flooring, to Leighton-Mitchell Co., 99 Chauncey St., Boston. About $75,000. Noted Aug. 12.

★**Conn., Stratford**—Liberty Mfg. Co., 166 Elm St., Bridgeport, let contract building 1 story motor factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to H. K. Ferguson, 6523 Euclid Ave., Cleveland, O. About $100,000.

★**N. Y., Brooklyn**—Butler Realty Co., c/o Shampan & Shampan, archts., 50 Court St., will build 1 story, 75 x 100 ft. brick and steel garage, rein.-con. flooring, concrete foundation, on Butler St. and 3rd Ave. Work will be done by day labor.

★**N. Y., Brooklyn** — C. H. Noble, c/o Springsteen & Goldhammer, archts. and engrs., 32 Union Sq., New York City, will build 3 story, 100 x 110 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on South 8th St. About $50,000. Work will be done by day labor.

★**N. Y., Buffalo**—Pratt & Lambert, Inc., 79 Tonawanda St., let contract building 6 x 50 x 55 x 100 ft. varnish factory, fireproof construction, to J. W. Cowper Co., Fidelity Bldg. About $75,000.

Industrial Works (Continued)

★**N. Y., Yonkers**—Yonkers Electric Light & Power Co., 9 Manor House Sq., let contract building 1 story, rein.-con., brick and steel sub-station, rein.-con. flooring, concrete foundation, to W. Young & Co., 414 West 41st St., New York City. About $75,000.

★**Pa., Allentown**—Allen Tire & Rubber Co., 510 Hamilton St., let contract building 2 story brick factory, to have 81,200 sq.ft. floor space, to Allentown Constr. Co., 5th and Hamilton Sts. About $2,500,000; cost plus percentage basis. Noted March 18.

★**Pa., Phila.**—E. B. Steinmetz & Co., Huntingdon and Hancock Sts., let contract building 2 story, 48 x 105 ft. yarn factory, rein.-con. and brick, on L and Sedgley Sts., to J. R. Wiggins Co., Otis Bldg. Noted July 29.

★**D. C., Washington** — Star Newspaper Co., 11th St. and Pennsylvania Ave., let contract building 9 story, rein.-con., brick and steel addition to plant, rein.-con. flooring, concrete foundation, to G. A. Fuller Co., 175 5th Ave., New York City. Noted July 15.

★**O., Cleveland**—Blue Valley Creamery Co., 700 South Clinton St., Chicago, let contract building 1 story, 70 x 168 ft., rein.-con., brick and steel factory, rein.-con. flooring, brick and concrete foundation, at 1802 East 47th St., to Kittinger Co., 1460 East 111th St. About $75,000. Noted May 13.

★**O., Cleveland**—Concrete Steel Co., 42 Bway., New York City, will build 1 story, 200 x 200 ft., steel fabricating shop, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000. Work will be done by day labor.

★**O., Cleveland**—A. S. Gilman Co., 623 St. Clair Ave., let contract building 2 story, 90 x 119 ft., brick and steel addition to plant, brick foundation, to Myers-Kuhn Constr. Co., 210 Metropolitan Bldg. About $50,000.

★**Mich., Detroit**—Dept. Pub. Wks., City Hall, let masonry contract building 1 story, 70 x 180 ft., rein.-con. and brick garage, rein.-con. flooring, concrete foundation, at foot of 14th St., to A. W. Kutsche Co., Ford Bldg., $42,400; carpentry, to Winkler & Auch, Penobscot Bldg., $11,114; plumbing and heating, to Rose & Wood, Penobscot Bldg., $10,210.

★**Ill., Chicago**—Perfection & Manhattan Laundry, 2514 Armitage Ave., let contract building 2 story, rein.-con. and brick addition to laundry, concrete foundation, to W. J. Scown Bldg. Co., 36 West Randolph St. About $60,000.

★**Ill., East St. Louis**—Eagle Pitcher Lead Co., Ry. Exch. Bldg., St. Louis, Mo., let contract constructing brick, rein.-con. and steel plant, rein.-con. flooring, here, including furnace building, boiler room, laboratory, machine shop, office, warehouses and service buildings, to Wimmer Contg. Co., Victoria Bldg., St. Louis, Mo. About $600,000.

★**Ill., East St. Louis**—Monsanto Chemical Wks., 1800 South 2nd St., St. Louis, Mo., let contract constructing 7 buildings for chemical plant, to include 2 large buildings, one 50 x 100 ft. and other 200 x 200 ft., rein.-con. and steel, rein.-con. flooring, to Wimmer Constr. Co., Victoria Bldg., St. Louis, Mo. About $400,000.

★**Wis., Saukville**—G. Sielman & Son Co., 337 7th St., Milwaukee, let general contract building 2½ story, 57 x 149 ft., brick, rein.-con. and steel factory, brick foundation, on Main St., to J. Schramka, Port Washington. About $50,000.

★**Minn., St. Paul**—R. A. Schaffner and A. G. and C. H. Siems of St. Paul, and C. P. Stembel, Minneapolis, let contract building 1 story, 150 x 650 ft. frame repair plant, also lumber mill, blacksmith shop, store house, lumber shed, material platform and office building, on West Como Ave., St. Paul, and Como Ave., Minneapolis, to Siems, Helmers & Schaffner, 514 Guardian Life Bldg. About $250,000.

★**Mo., Kansas City**—See "Buildings."

★**Mo., Kansas City**—Adams Transfer & Storage Co., 228 West 4th St., let contract building 1 story, rein.-con. and brick warehouse, rein.-con. flooring, to Pratt-Thompson Constr. Co., 500 Republic Bldg. About $150,000.

★**Mo., St. Louis** — Crunden-Martin Mfg. Co., 760 South 2nd St., let contract building rein.-con. and brick factory, rein.-con. flooring, to Gamble Constr. Co., 620 Chestnut St. About $350,000.

★**Mo., St. Louis**—Schlueter Mfg. Co., Bway. and John St., let contract building 4 story, 43 x 100 ft., brick factory, to C. A. Welch Constr. Co., Central Natl. Bank Bldg. About $55,000.

★**Col., Denver**—Concrete Steel Co., 42 Bway., New York City, will build 1 story, 200 x 200 ft., steel fabricating shop, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000. Work will be done by day labor.

Buildings

PROPOSED WORK

Me., Deering (Portland P. O.)—Convent—St. Joseph Parish, 605 Stephens Ave., had plans prepared by O'Connell & Shaw archts., 18 Boylston St., Boston, Mass., for 4 story, 50 x 100 ft., rein.-con. and brick addition, rein.-con. flooring. About $300,000.

Me., Skowhegan—Armory—Town plans to build brick and steel. About $100,000. A. Simpson, clk. Architect not selected.

Me., South Brewer—School—C. P. Crowell, archt., 44 Central St, Bangor, soon lets contract building 2 story, brick and steel, concrete foundation, for St. Theresa Roman Catholic Society.

Mass., Amherst—Club—Putnam & Cox, archts., 114 State St., Boston, soon let contract building 3 story, 40 x 75 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Northampton St., here, for Phi Kappa Psi Fraternity. Noted July 15.

Mass., Hyde Park (Boston P. O.)—Office—City, Pub. Bldg. Dept., plans to build brick, concrete and steel on Everett Sq. Architect will be selected soon.

Mass., Lawrence—Church and School—St. Marys Roman Catholic Society, Haverhill St., rejected bids and will have plans revised by E. T. P. Graham, archt., 20 Beacon St., Boston, for 3 story, 47 x 100 ft. brick and steel, concrete foundation on Ames and Lowell Sts. About $125,000. J. T. Reilly, pastor. Noted Aug. 5.

Mass., Northbridge—Lodge and Business—Knights of Pythias, c/o J. A. Brown, Eureka Lodge, plans to build 3 story, brick and steel, on Church St. J. D. Leland, 185 Devonshire St., Boston, archt.

Mass., Quincy (Boston P. O.)—Dormitory—Bulfinch & Voss, archts., 122 Ames Bldg., Boston, soon let contract building 3 story, 40 x 120 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, for Eastern Nazarene College, Wollaston Park. About $125,000. Noted July 22.

Conn., Hartford—Business—Berenson & Moses, archts., 1026 Main St., soon let contract building 3 story, 50 x 145 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Main St., for C. Leonard, 599 Main St.

Conn., Hartford—Office—Natl. Fire Insurance Co., 95 Pearl St., plans to build large brick office, on Pearl St. Architect not selected.

Conn., Montville—Housing—R. Gair, 50 Washington St., Brooklyn, N. Y., plans to build several brick and timber houses, brick foundations, for housing development system, here. About $250,000. Lockwood-Green, 101 Park Ave., New York City, archts. and engrs.

N. Y., Long Island City—Schools—Bd. Educ., 500 Park Row, New York City, plans to build 2 brick, steel and stone schools, brick foundations, one on Wool and Laconia Sts., other on Grand and 16th Ave. About $500,000 and $900,000 respectively. C. B. J. Snyder, Municipal Bldg., New York City, archt.

N. Y., Richmond Hill—Schools—Bd. Educ., 500 Park Row, New York City, plans to build 2 brick, steel and stone additions, stone foundations, one on Cedar Ave., other on Hillside Ave. About $500,000 and $900,000 respectively. C. B. J. Snyder, Municipal Bldg., New York City, archt.

N. J., Camden—Office—J. E. Fagen, 509 Federal St., plans to build 4 story, 75 x 100 ft., concrete and brick. B. H. Lackey, 509 Federal St., archt.

N. J., Linwood—Club—Linwood Country Club had plans prepared by McLanahan & Bencker, archts. and engrs., Bellevue Court Bldg., Phila., for 1 and 2 story, 75 x 150 ft., brick and stucco. Cost to exceed $100,000.

N. J., Millville—High School—Bd. Educ. plans to build school. About $300,000. Address the Mayor.

N. J., Newark—Theatre and Store—Ten Rose Holding Co., c/o Bachoff, Jones & Cook, archts., 9 Clinton St., had plans prepared for 2 story, 50 x 150 ft., brick and terra cotta, at 783-785 Clinton St. About $100,000.

N. J., Trenton — Hospital — St. Francis Hospital, Chambers St. and Hamilton Ave., plans to build addition. About $500,000. Address, Sister Rose, c/o hospital. Architect not selected.

Pa., Clearfield—Hospital—Clearfield Hospital plans to construct 2 story, 100 x 130 ft. brick addition, to include maternity wing, laboratory unit, isolation suites, etc. About $150,000. Architect not selected.

Pa., East Conemaugh (Johnstown P. O.)—School—Bd. Educ. will receive bids within 2 months building 3 story, 80 x 100 ft., brick and stone, rein.-con. flooring, on 1st and Locust Sts. Bond for $110,000 voted for project. Architect not selected. Noted Aug. 19.

Pa., Johnstown — Exchange — Johnstown Builders Exchange plans to build 3 story on central site. About $100,000.

Pa., Philadelphia—Bank and Office—Bryn Mawr Trust Co., Bryn Mawr Ave., plans to build bank and office on Lancaster Pike. Cost to exceed $100,000. Architect not selected.

O., Cleveland — Bank—Doans Savings & Loan Co., East 6th St. near Superior Ave., purchased 4 story, brick, stone and steel building on Euclid Ave. near East 57th St. and plans to remodel same for own use. About $125,000. J. R. Moxon, secy. Architect and engineer not selected.

O., Cleveland — Bathhouse—City having plans prepared by J. H. MacDowell, archt., City Hall, for 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at Gordon Park. About $300,000.

O., Cleveland — Commercial — J. Babin, Hotel Olmstead, plans to build 8 story, 50 x 190 ft., rein.-con., brick steel and terra cotta, rein.-con. flooring, brick and concrete foundation, on Euclid Ave. between East 30th and East 40th Sts. About $600,000. Architect and engineers names withheld.

O., Cleveland—Commercial—A. D. Joyce, pres. Glidden Co., Madison Ave., plans to build 8 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Euclid Ave. and East 55th St. About $500,000. Private plans.

O., Cleveland—High School—Bd. Educ. having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., for 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, in Woodland Hills. About $2,000,000. F. G. Hogan, dir.

O., Columbus—Lodge—St. Marks Lodge, A. F. & A. M., 116½ South High St., having sketches made for 3 story, 82 x 119 ft., brick and concrete, on East Long St. About $200,000.

O., Euclid—Church—Euclid Ave. Congregational Church, c/o F. Blanchard, Euclid Ave. and East 90th St., plans to build 1 story, brick church, brick foundation, on Euclid and Elm Aves. About $150,000. Architect not selected.

Ind., Fowler—Hospital—Comrs. Benton Co., having plans prepared for 2 story, 50 x 80 ft., rein.-con., brick and steel. About $100,000. Private plans.

Ind., Indianapolis—Educational—Central Christian Church, Walnut and Delaware Sts., having plans prepared by N. E. Hill, archt., 601 Lombard St., for 2 story, 76 x 81 ft., rein.-con. stone, brick and steel, on Delaware St. About $100,000.

Ind., Indianapolis—School—Bd. Educ. had plans prepared by E. E. Dunlap Co., archts., 909-10 State Life Bldg., for 2 story, 58 x 64 ft., rein.-con. and brick, on English Ave. About $100,000. Snider & Rotz, 703 Merchants Bank Bldg., engrs.

Ind., Pierceton — School — A. J. Menzie, trustee, plans to build 2 story, 88 x 110 ft., brick. About $100,000. Mahurin & Mahurin, 124 West Jefferson St., Ft. Wayne, archts.

Mich., Detroit — City Hall — City Plan Comn., having preliminary sketches made by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, for 6 story, or more, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Woodward Ave. About $3,000,000.

Ill., Chicago — Church — A. V. Leisen, archt. 3133 Logan Blvd., prepared plans for 2 story, 60 x 100 ft., brick and stone, concrete foundation, on Francisco and Schubert Sts. About $100,000. Owner's name withheld.

Ill., Chicago—Institute—Chicago Art Institute, Grant Park and Adams St., soon receives bids building 2 story, 200 x 200 ft., concrete and Steel addition. About $200,000. Coolidge & Hodgson, 134 South La Salle St., archts.

Ill., Chicago—Store—Stevens, Maloney & Co., 21 South La Salle St., plans to build 6 story, 25 x 125 ft., at 6-8 South Clark St. About $200,000. Architect and engineer not announced.

Buildings (Continued)

Wis., Phillips—Depot—Minneapolis, St. Paul & Sault Ste. Marie R.R. 204 Clark St., Chicago, soon receives bids building 2 story, 54 x 150 ft., brick, rein.-con. and steel, brick foundation, here. Private plans.

Wis., Rosendale — High School — Union Free High School Bd. had plans prepared by F. J. Stepmoski, archt., 144 Marquette St., Fond du Lac, and will probably receive bids in fall, building 3 story, 60 x 180 ft., brick, rein.-con. and steel, brick foundation, on Main St. About $100,000. T. J. Madigan, clk.

Wis., Schleisingerville—Sanatorium—H. Storck having plans prepared by J. E. Hennen, archt., 74 South Main St., Fond du Lac, for 5 story, brick, rein.-con. and steel. About $350,000.

Wis., Sheboygan—Hospital and Dormitory—St. Nicholas Hospital Assn., 1426 North 8th St., having plans prepared by Foeller & Schober, archts. and engrs., 123 North Washington St., Green Bay, for 3 story, 160 x 300 ft., brick, rein.-con. and steel, brick foundation, on 9th St. and Superior Ave. About $200,000. R. F. Thiel, pastor.

Wis., Sheboygan — Office and Lodge — Knights of Columbus plan to build 4 story, 60 x 250 ft., brick, rein.-con. and steel, brick foundation. About $150,000. Architect and engineer not selected.

Wis., Two Rivers—Theatre—Two Rivers Amusement Co. having preliminary sketches made by W. T. Raeuber, archt. and engr., Manitowoc, for 2 story, 85 x 210 ft., rein.-con., brick, steel and tile, brick foundation. About $150,000. J. Tadych, promoter.

Minn., Minneapolis—Bible School—First Baptist Church soon receives bids building 4 story, 51 x 80 ft. rein.-con., brick and stone, on 11th St. and Harmon Pl. About $100,000. Long, Lamoreaux & Thorshov, 1028 Andrus Bldg., archts.

Minn., Minneapolis — Lodge Home—Sons and Daughters of Norway Bldg. Assn., c/o T. O. Dahl, 1605 East Lake St., plans to build home. About $100,000. Architect not selected.

Kan., Columbus — School — City voted $110,000 bonds to build school. Architect and engineer not selected.

Kan., Glasco—School—Bd. Educ. having preliminary plans prepared by W. H. Saylor & Co., archts., Mutual Bldg., Kansas City, Mo., for school. About $100,000.

Kan., McLouth—High School—Bd. Educ. having plans prepared by W. Saylor & Co., archts., Topeka, for 2 story, concrete, brick and steel, concrete foundation. About $100,000.

Kan., Norton—Theatre—M. F. Browne having plans prepared by C. W. Shaver, archt., Salina, for 2 story, 40 x 115 ft., concrete, brick and steel, concrete and brick foundation. About $100,000.

Kan., Topeka—Hospital and Detention—Security Benefit Assn. having preliminary plans prepared by Schmidt, Garden & Martin, achts., 104 South Michigan Ave., Chicago, for rein.-con. and brick, concrete foundation. About $300,000.

Neb., Tremont—Church—First Methodist Episcopal Church having plans prepared by W. C. Jones, archt., 30 North LaSalle St., Chicago, for 2 story, 90 x 90 ft., brick and stone, concrete foundation. About $100,000.

S. D., Mobridge — Hospital — Mobridge Lutheran Hospital Assn. having plans prepared by Long, Lamoreaux & Thorshov, archts., 1028 Andrus Bldg., Minneapolis, Minn., for 3 story, 40 x 100 ft., rein.-con., brick and tile. About $135,000. L. Eggert, chn. building com.

S. D., Rapid City—Court House—Pennington Co. plans election in November to vote on $500,000 bonds to build court house. Architect not selected.

Mo., Kansas City—Hospital and Chapel—St. Lukes Hospital, 45th St. and Wornall Rd., c/o F. Clough, secy., having plans prepared by Keene & Simpsom, archts., 401 Reliance Bldg., for 5 story, 45 x 200 ft. hospital and 2 story, 40 x 60 ft. chapel, rein.-con., brick and stone.

Mo., St. Louis—Hotel—Jefferson Hotel Co., 12th and Locust Sts., having plans prepared by T. P. Barnett, archt., Arcade Bldg., for 12 story, 50 x 200 ft., rein.-con., brick and steel, rein.-con. flooring. About $1,200,000. Noted June 10.

Tex., Dallas — Exposition — Rick Warehouse & Stores Co. plans to build 10 story, 200 x 300 ft., rein.-con., rein.-con. flooring, on Elm St. About $1,000,000. A. C. Rick, pres.

Wash., Seattle — Bank — Seattle Natl. Bank, 2nd and Columbia Sts., having plans prepared by Doyle & Merriam, archts., Seattle Natl. Bank Bldg., for 2 story, 108 x 120 ft. addition with 35 x 73 ft. foyer, brick and marble, concrete foundation. About $500,000.

Ont., Richmond Hill—Home—Loyal True Blue & Orange Home, County Orange Bldg., Richmond St., Toronto, plans to build 3 story, children's home, concrete foundation, on Yonge St., here. About $300,000. Architect not selected.

BIDS DESIRED

Conn., New Britain—School—Until Sept. 20, by Bd. Educ., building 2 story, 60 x 240 ft. with 56 x 70 ft. ell, rein.-con., brick and steel, rein.-con. flooring, concrete foundation on Tremont St. About $350,000. D. K. Perry, 27 West Main St., archt. Noted Aug. 26.

Pa., Ebensburg — Court House — Until Sept. 27, by H. T. Jones, controller Cambria Co., building brick and steel addition and dome. About $200,000. J. R. Gordon, 507 5th Ave., New York City, archt. Noted July 29.

D. C., Washington—School—Until Sept. 14, by Dist. Comrs., building Woodridge-Langdon School. About $135,0000.

La., New Orleans — Infirmary — Until Sept. 27, by E. Weil, archt. and engr., Whitney Blk., building 4 story, brick, steel and stone addition to Truro Infirmary.

O., Canton—Schools—Until Oct. 3, by W. C. Lane, clk. Bd. Educ., building two 2 story, brick schools, one on Belden Ave. N. E., and other on Grace Ave. N. E. About $300,000 each. Thayer & Johnson, Cleveland, archts. Noted Sept. 2.

O., Hoytville—School—Until Sept. 18, by G. Dunn, Jr., clk. Bd. Educ., building 3 story, 62 x 130 ft. school in Jackson Twp. About $150,000. S. P. Stewart & Son, Bowling Green, archts.

O., Springfield—School—Until Sept. 21, by Bd. Educ. furnishing labor and material for building 14 room grade school, on Maiden Lane and Zischler Sts. W. L. Smack, clk. O. D. Howard, Springfield, archt.

Ind., Evansville — Hospital — Deaconess Hospital receiving bids building 3 story, 53 x 121 ft., rein.-con., brick and steel, rein.-con. flooring. About $200,000. H. E. Boyle & Co., Evansville, archts. Noted Sept. 2.

Ind., Indianapolis — School — Until Sept. 11, by Bd. School Comrs. building 2 story, 60 x 80 ft., rein.-con., brick and steel, on 10th and Dearborn Sts. About $100,000. H. Foltz, 843-6 Lemcke Annex, archt. Snider & Rotz, 703 Merchants Bank Bldg., engrs.

Ill., Chicago—Office—G. C. Nimmons & Co., archts., 122 South Michigan Ave., receiving bids building 9 story, 75 x 100 ft., rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, at 546-8 South State St., for W. V. Kelly, c/o architects. About $500,000. Bd. Educ. lessee. Noted July 22.

Wis., Milwaukee—Theatre—Until Sept. 13, by M. Tullgren & Sons, archts., 425 East Water St., building 1 story, 80 x 120 ft., concrete and brick, rein.-con. flooring, concrete foundation, on 36th St. and North Ave., for T. Saxe, 160 5th St. About $100,000.

Wis., West Allis (Milwaukee P. O.)—Grade School—Until Sept. 18, by Bd. Educ., building 2 story, concrete and brick, rein.-con. flooring, concrete foundation, on Cupple St. Cost between $75,000 and $100,000. Lesser & Schutte, 68 Wisconsin St., Milwaukee, archts.

Ia., Mason City—Hotel—Proudfoot, Bird & Rawson, archts., 810 Hubbell Bldg., Des Moines, receiving bids building basement and 1st floor of 7 story, 132 x 165 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete and brick foundation, for Mason City Hotel Co. About $800,000. Noted July 29.

Minn., Minenapolis—School—Until Sept. 17, by Bd. Educ. building 2 story, 58 x 158 ft. rein.-con., brick and stone addition to Clinton Grade School, on 28th St. and 4th Ave. S. About $200,000.

S. D., Sioux Falls—Office, etc.—Eng. Dept. of Chicago, St. Paul, Minneapolis & Omaha Ry., 275 East 4th St., St. Paul, receiving bids building 1 story, 30 x 256 ft. rein.-con., brick and steel, office and freight house, here.

Mo., Liberty—Church—Until Sept. 23, by Baptist Church, building 2 story, irregular shaped, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $150,000. J. H. Felt & Co., Grand Ave. Temple, Kansas City, Mo., archts. Noted July 22.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Bank and Office—Fremont Trust Co., 14 State St., let contract building 12 story, 100 x 130 ft. rein. brick, steel and terra cotta, rein.-concrete flooring, concrete foundation, on Court St. J. H. Broderick, 101 Tremont St. About $2,300,000.

★**Mass., Cambridge**—Hospital, E. T. Graham, archt., 20 Beacon St., Boston, contract to Walsh Bros. Co., 150 Hampshire St., building 3 story, 77 x 141 ft. brick, rein.-con. and steel addition, rein.-con. flooring, concrete foundation, on Cambridge St., for City Hospital Comm. About $201,000. Noted Aug. 12.

N. Y., New York—School—City received bids building and altering P. S. 115, to T. A. Clark Co., $287,600; G. F. Driscoll $319,600; T. Dwyer, Bway. and 216th St. $330,000.

★**N. J., Roselle Park**—School—Bd. Educ. let contract building Aldene School, 1 and 2 story, 77 x 118 ft., concrete and brick, to C. Flockin, 681 Newark Ave., Elizabeth, $126,098. Noted Aug. 12.

★**Pa., Allentown** — Theatre — Liberty Theatre Co., 40 North 9th St., let contract building 2 story, 50 x 175 ft., brick, stone and steel, brick foundation, at 27 South 6th St., to Butterwick Constr. Co., 40 North 9th St. About $200,000.

★**Pa., Coatesville** — Hotel — I. Forman, Main St., will build 3 story, 50 x 70 ft. brick. Cost to exceed $100,000. Work will be done by day labor. Noted Aug. 12.

★**Pa., New Castle** — High School — Bd. Educ. let contract building 3 story, 240 x 340 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to Moore & Lamb, 203 Stambaugh St., Youngstown, O., $340,825. Noted March 4.

★**Md., Baltimore**—Presto-Lite Co. Inc. 30 East 42nd St., New York City, let contract building 1 story, 25 x 50 ft. acetylene plant, rein.-con. and steel, rein.-con. flooring, concrete foundation, here, to West Constr. Co., Foster and 13th Aves. About $75,000.

★**S. C., Florence**—Hospital—Saunders Memorial Hospital, Inc., let contract building hospital, Fisck Locke brick, to Driscoll Co., Florence. About $100,000.

★**O., Cleveland**—Bank—Reliance Banking Co., c/o Walker & Weeks, archts., 1900 Euclid Ave., let contract altering 3 story, brick, limestone and marble, brick foundation, at 1632 Euclid Ave., to S. W. Emerson Co., 1900 Euclid Ave. About $100,000.

O., Lakewood (Cleveland, P. O.)—Schools—Bd. Educ., 1456 Warren Rd., received bids building (a) 54 x 90 ft. addition on Clifton Blvd. and Summit Ave., (b) 42 x 78 ft. addition on West Clifton Blvd., (c) 54 x 88 ft. addition on Franklin and Elbur Aves., all 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, from Schirmer-O'Hara Co., Ryder Bldg., Cleveland, (a) $132,100, (b) $45,180, (c) $74,300; Drummond-Miller Co., 4500 Euclid Ave., Cleveland, (a) $144,000, (b) $56,000, (c) $82,000. Noted May 27.

★**O., Lorain**—High School—Bd. Educ. let contract building 2 story, 100 x 137 ft. fireproof, on Hamilton and Oberlin Aves., to C. Peterson Co., Engineers Bldg., Cleveland. About $214,000.

★**O., Urbana**—High School—Bd. Educ. let contract building 2 story, 120 x 137 ft. fireproof high school, to J. W. and C. B. Anderson, Piqua. About $210,000.

★**Mich., Detroit**—Schools—Bd. Educ. let contracts building (1) Cooper School, (2) addition to Leland School, (3) Custer School, (4) addition to Crossman School, (5) Carstens School 2, (a) masonry, (b) carpentry, (c) heating, ventilating and plumbing, (d) electrical wiring, to Cooper Weidenmann Constr. Co., 1430 Penobscot Bldg., (1a) $191,270; E. Thiede, 287 Berlin St., (1b) $85,530, (3b) $65,950, (5b) $32,595; J. W. Partlan, 51 Park Pl., (1c) $93,800; Iron City Eng. Co., 1332 Dime Bank Bldg., (1d) $12,660, (5d) $7,572; J. Bollin Co., 906 Bellevue Ave., (2a) $117,490; W. W. Horen, 470 Dix Ave., (2b) $47,992; Drake Avery Co., 40 State St., (2c) $91,915, (3c) $91,212, (4c) $51,821; Hub Electric Co., 41 East Jefferson Ave., (2d) $8,451; Corrick Bros., 507 Owen Bldg., (3a) $247,737; Gray Electric Co., 71 Jones St., (3d) $15,687; M. A. Mahoney, Penobscot Bldg., (4a) $84,848; Southwick Pom Co., 1244 St. Jean Ave., (4b) $29,668; Central Electric Co., 96 Bway., (4d) $10,900; W. H. Mueller, 1531 Vinewood St., (5a) $73,915; W. J. Rewoldt, 506 Owen Bldg., (5c) $62,108. Noted Aug. 26.

★**Mich., Houghton**—Chemistry—Michigan College of Mines, College Ave., let contract building 2 story, brick and concrete, rein.-con. flooring, concrete foundation, to H.

Buildings (Continued)

Lindlach, Leopold Bldg. About $125,000; let plus percentage basis. Noted July 8.

★**Mich., Kalamazoo**—School Bd. Educ. let contract building 3 story, 140 x 363 ft., brick, rein.-con. and steel, rein.-con. floors, concrete foundation, to Vanderhorst Co., Kalamazoo. $554,512. Noted Aug. 5.

★**Ill., Centralia**—High School—Town let contract building 2 story, 130 x 130 ft., brick, to G. E. Tillman Constr. Co., Centralia. About $100,000.

★**Ill., Chicago** — Office — Holabird & Roche, archts., 104 South Michigan Ave., let contract to A. Brundage, 110 South Dearborn St., building 2 story, 38 x 110 ft., brick, tile and steel addition, concrete foundation, at 161 North Dearborn St., for Oliver Typewriter Co., 167 North Dearborn St. About $130,000. Noted June 24.

★**Ill., East St. Louis**—Mercantile—S. S. Kresge Co., 6th and Washington Sts., St. Louis, Mo., let contract building rein.-con. and brick, rein.-con. flooring, on St. Louis Ave., here, to G. A. Fuller Constr. Co., Syndicate Trust Bldg., St. Louis, Mo. About $200,000.

★**Ill., Herrin**—High School—Bd. Educ. let contract building 2 story, 130 x 142 ft., brick and concrete, rein.-con. flooring, to P. Cardani, Herrin. About $123,600.

★**Ia., Des Moines** — Store and Office — First & Second Mortgage Co., Register & Tribune Bldg., let contract building 2 story, 125 x 283 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation on Grand Ave. between 9th and 10th Sts., to A. H. Neuman & Co., Hubbell Bldg. About $250,000.

★**Minn., St. Paul**—Club and Hall—German Hall Bldg. Assn., c/o P. J. Linhoff, archt., 906 Guardian Life Bldg., let contract building 3 story, 110 x 120 ft. rein.-con., brick and stone, on Rice and Aurora Sts., to J. R. Schmit, 429 North Dale St.; cost plus percentage basis. Noted Aug. 26.

★**Kan., Liberal**—Church—Methodist Episcopal Church let contract building 2 story, 66 x 106 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to M. C. Foy, Hutchinson. About $110,000; cost plus percentage basis. Noted May 13.

★**Kan., Lincoln** — School — Bd. Educ. let contract building 2 story, 80 x 134 ft., rein.-con. and stone, rein.-con flooring, to O. Peterson, Salina. About $120,000. Noted Aug. 12.

★**Mo., Columbia**—School—Missouri University let contract constructing 2 story, 63 x 91 ft., rein.-con. economic building, to Simon Constr. Co., Columbia. About $100,000. Noted July 22.

★**Mo., Kansas City**—Sales, etc.—R. P. Rice Motor Sales Co., 3823 Bway., let contract constructing 3 story, 60 x 122½ ft., sales and service building, brick and terra cotta, rein.-con. flooring, to A. J. Rector, Dwight Bldg. About $150,000.

★**Mo., St. Louis** — College — Lindenwood College, 3715 McCausland St., let contract building 4 story, 104 x 168 ft., rein.-con. and brick, rein.-con. flooring, to Sutherland Constr. Co., Syndicate Trust Bldg. About $350,000.

★**Mo., St. Louis**—Hospital—St. John Hospital, Euclid St. and Park View Pl., let contract building rein.-con., brick and steel addition, rein.-con. flooring, on Euclid St., to Rodman Bldg. & Constr. Co., St. Louis. About $175,000.

★**Tex., San Antonio**—Store—F. W. Woolworth Co., 322 East Houston St., let general contract building 3 story, 104 x 110 ft., concrete and brick, on Houston St. and Alamo Plaza, to Coleman & Jenkins, Gunter Bldg., $183,200. Noted Aug. 19.

★**Ont., Niagara Falls**—Hospital—General Hospital Trust let contract building 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, to Robertson Constr. Co., Bamfield Blk. About $126,000.

★**Ont., Ottawa**—Theatre—Canadian Famous Players Film Co., Temple Bldg., Toronto, let contract building 1 and 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here, to Atlas Constr. Co., 37 Belmont St., Montreal, Que. About $350,000; cost plus percentage basis.

Federal Government Work

PROPOSED WORK

N. Y., Brooklyn—Underground Electric Light & Power Distributing System—Spec. 4286—Bureau Yards & Docks, Navy Dept., Washington, D. C., plans to build here, including conduits, manholes, cables and main switchboard with equipment and entrance switches.

D. C., Washington — Dispensary — Spec. 4226—Burea Yards & Docks, Navy Dept., rejected bids received Aug. 18, building at Navy Yard, here. Noted Aug. 26.

Cal., San Diego—Cold Storage Plant—Spec. 4199—Pub. Wks. Office rejected bids building at Marine Base, here. Noted Sept. 2.

Cal., San Diego—Storehouse—Spec. 4264—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build 5 story, 190 x 200 ft. rein.-con. storehouse at foot of Bway. Noted Aug. 19.

BIDS DESIRED

Md., Baltimore—Bowlers Rock Light—Until Sept. 15, by Supt. Lighthouses, furnishing all material (except metal work) and labor for building and delivering of Bowlers Rock Light, Va.

Fla., Key West—Metal Work—Until Sept. 30, by Superintendent Lighthouses, furnishing and delivering f.o.b. Key West, metal work for Seahorse Reef Light.

Ark., Helena — Ditches — Until Sept. 27, by Comrs. Little Cypress D.D., building 25 mi. ditches, involving 356,000 yd. floating dredgwork. Noted July 29.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**R. I., Providence**—Dredging—U. S. Eng. Office, War Dept., let contract dredging in Providence River and Harbor, to E. Breymann, 103 Chamber of Commerce Bldg., Toledo, O., $142,761. Noted Aug. 5.

Conn., New London—Roads, Walks, etc.—Spec. 4249—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Sept. 1, building roads, walks, storm sewers and railroad tracks, at submarine base, (1) work complete, from Fox Reynolds Co., Inc., 81 East 125th St., New York City, (1) $58,942, (125 days), (2) $4, (3) $4, (4) $4.75, (5) $4, (6) $6,648; F. D. Miller & Co., 43 Bway., New York City, (1) $48,132, (100 days), (2) $1.60, (3) $2, (4) $4, (5) $3.50, (6) $3,481; Hyde & Baxter, 1311 G. St., N.W., Wash., D. C., (1) $87,900, (125 days), (2) $2.50, (3) $4, (4) $6 for pavement, $1.65 for shoulders, (5) $5.50, (6) $4,760. Noted Aug. 5.

N. Y., New York—Cable Reel Platform, etc.—Spec. 4243—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Sept. 1, building cable reel platform, storage shed and fence, storage racks in Bldg. 150 and demolishing Bldg. 151, (1) work complete, from C. Meads & Co., 217 West 14th St., (1) $49,200 (90 days); E. T. Cox Constr. Co., Inc., 154 Nassau St., (1) $44,400, (80 days), (2) $19,850, (75 days), (3) $4,000, (40 days), (4) $21,265, (75 days); Hyde & Baxter, 1311 G. St., N.W., Wash., D. C., (1) $54,450, (90 days), (2) $27,450, (75 days), (3) $9,960, (75 days), (4) $20,850, (75 days). Noted Aug. 5.

D. C., Washington—Bridge—Dept. of Interior, at office of C. Sells, Comr. Indian Affairs, received bids Aug. 31, building steel bridge across Two Medicine River, Blackfoot Reservation, from Illinois Steel Bridge Co., 552 Gilfillan Blk. St. Paul, Minn. $16,800, (100 days). Noted Aug. 19.

★**D. C., Washington**—Repairing Wharf and Slips—Spec. 4260—Bureau Yard & Docks, Navy Dept., let contract repairing Wharf 3 and Slips 2 and 3, to L. A. Clark & Sons, 10th St. Wharf, S. W., $4,400. Noted Sept. 2.

★**Wyo., Shoshone**—Lateral System Recl. Serv. let contract building portion of lateral system of 3rd Unit, Frannie Div., Shoshone Irrigation Project involving 42,000 cu.yd. excav., to H. Downer, Deaver.

Ore., Astoria—Remodeling Post Office—Treas. Dept., Wash., D. C., received bids Aug. 31, remodeling here, from H. W. Ostrom, Astoria $12,444; J. L. Burgess, Astoria, $11,800; King Lumber Co., Charlottesville, Va., $28,700. Noted Aug. 12.

Miscellaneous

PROPOSED WORK

Granite Gateway etc.—Cambridge, Mass.—R. H. Doane, archt., 75 Newbury St., Boston, soon lets contract building a large granite gateway, also 1 story, 25 x 45 ft., brick and stone rest house, on Mt. Auburn St., here, for Mt. Auburn Cemetery, 199 Washington St., Boston. Cost to exceed $25,000. Coolidge & Shattuck, 122 Ames Bldg., Boston, associate archts. Noted Sept. 2.

Bleachers — New Bedford, Mass. — Park Bd. rejected bids received July 8, building concrete bleachers, at Buttonwood Park. About $30,000. Project postponed. Brown & Poole, Chapman Bldg., engrs. Noted July 1.

New Ulm, Minn.—Fill—See "Streets and Roads."

Trucks—Independence, Kan.—Prairie Oil & Gas Co. will soon be in market for 2 new trucks.

Road Machinery—Kaufman, Tex.—J. F. Coon, judge Kaufman Co., soon receives bids furnishing road machinery to include (1) movable clam-shell cranes for unloading cars, (2) small drag line for earthwork and unloading uses, (3) either caterpillar tractors and heavy wagons or industrial track, gasoline locomotives and cars, for hauling purposes. Bartlett & Ranney, Inc., co. engrs.

BIDS DESIRED

Plant—New York, N. Y.—Until Sept. 15, by H. H. Curran, pres Manhattan, Boro., building plant for crushing, melting and mixing old asphaltic material, also altering existing elevator at plant on 90th St. and East River.

Rapid Transit—New York, N. Y.—Until Sept. 21, by J. H. Delaney, comr., 49 Lafayette St., rebuilding portion of Sect. 3, Route 33, Bway-4th Ave. Rapid Transit R.R.

Wall—Newark, N. J.—Until Sept. 14, by Dept. Streets and Pub. Improvts., City Hall, building concrete wall, 1,500 ft. long, 12 ft. high, involving 2,300 cu.yd. concrete, on property of Mt. Pleasant Cemetery Co. About $25,000.

Pumping Engine—Janesville, Wis.—Until Oct. 1, by city, furnishing 8,000,000 gal. horizontal, cross-compound, crank and fly wheel pumping engine. C. V. Kerch, city engr.

Trucks—Ft. Scott, Kan.—Ft. Scott-Pittsburg Transportation Co. is in the market for trucks. C. E. Coy, c/o Postoffice, pres.

S. D., Sioux Falls—Until Sept. 27, by J. Mundt, comr. Water Dept., building well, well house and appurtenances; advertised in this issue.

Crushed Trap Rock or Limestone—Kaufman, Tex.—Until Sept. 28, by J. F. Coon, judge Kaufman Co., furnishing crushed trap rock or limestone and hauling and loading equipment. Bartlett & Ranney, Inc., co. engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Ferry Boat—Boston, Mass.—City Bridge & Ferry Div. let contract building ferry boat, to Winnisimmet Shipyards, Inc., Chelsea. About $335,000. Noted July 29.

★**Bleachers—New Bedford, Mass.**—Park Bd. let contract building concrete bleachers at Victory Park, to E. A. Abbott Co., 3 Park St., Boston. About $35,000. Noted July 1.

★**Bin—Buffalo, N. Y.** — Michigan Limestone & Chemical Co., 257 Washington St., let contract building steel and frame storage bin at foot of Katherine St., to Harding & Crea, White Bldg. About $60,000.

★**Water Meters—New Brunswick, N. J.**—City let contract furnishing 3,000 water meters for hydrants, to Natl. Meter Co., 299 Bway., New York City, $30,510.

Conduits—Detroit, Mich.—Fire Comm., West Larned St., received bids furnishing labor and material building conduit lines, manholes, etc., for fire alarm system, involving 17,556 ft. 3-18 duct, from R. A. Mercier, 746 Hudson Ave., $120,821; C. M. Davis Co., 1323 Woodward Ave., $135,670; Contg. & Material Co., 3219 South Michigan Ave., Chicago, Ill., $165,408.

Piling—Detroit, Mich.—Water Bd. 232 Jefferson Ave., received bids furnishing labor and material for (a) excavating 50,000 cu.yd. earth and (b) driving 438,000 lin.ft. concrete piles for filtration plant, from Raymond Concrete Pile Co., Owen Bldg., (a) $2.48 per cu.yd., (b) $2.08½ per lin.ft., total cost, $1,037,230; J. F. Casey Co., Union Arcade, Pittsburgh, Pa., (a) $2.25, (b) $2.22, total $1,084,860.

★**Foundation—Chicago, Ill.**—Chicago Art Institute, Grant Park and Adams St., let contract building concrete foundation for 2 story, 200 x 200 ft., concrete and steel addition to art institute, to J. Rodatz, 209 South La Salle St. Total cost, $200,000.

★**Tank—Freeport, Minn.**—City let contract building 60,000 gal. steel tank, to Pittsburgh-Des Moines Steel Co., 8th and Tuttle Sts., Des Moines, Ia., $11,350. Noted Aug. 19 under "Waterworks."

Culverts—St. Joseph, Mo.—State Highway Dept., St. Joseph, received bid Aug. 20, building culverts on 20.02 mi. Sect. B, St. Joseph-Atchison Rd., 24 ft. wide, Federal Aid Project 49, Buchanan Co., from Lynch-McConnell, Moberly, $29,657. Work involves 376.6 cu.yd. Class "B" concrete masonry $29 per cu.yd., 230.4 cu.yd. Class "C" concrete masonry $25, 29,748 lb. reinforcement for concrete masonry, $0.[illegible]. Noted July 29.

★**Train Shed—Ft. William, Ont.**—North Western Elevator Co. Ltd., let contract building brick and timber train shed, concrete foundation, to Barnett & McQueen, Ft. William. About $[illegible],000.

OFFICIAL PROPOSALS

Bids: Sept. 21.

Hudson River Vehicular Tunnel

Contract No. 1

Canal Street Shaft—Spring Street Shaft, Manhattan

NEW YORK STATE BRIDGE & TUNNEL COMMISSION
and
NEW JERSEY INTERSTATE BRIDGE & TUNNEL COMMISSION

Sealed proposals for the construction of two shafts in the Borough of Manhattan for the Vehicular Tunnel under the Hudson River will be received at the office of the New York State Bridge & Tunnel Commission and the New Jersey Interstate Bridge & Tunnel Commission, Room 616, Hall of Records, Borough of Manhattan, New York City, until September 21, 1920, at 3:00 o'clock p.m., at which time they will be publicly opened and read.

The contract will include the furnishing of materials, and all work required in the construction and sinking of two shafts, one located in Canal Street between Washington and West Streets, and the other located in Spring Street between Washington and West Streets; the relocation and construction of approximately 200 feet of the 8' by 16' sewer in Canal Street, and the care and support of buildings, vaults, sewers, pipes, railroads and other surface, sub-surface and overhead structures, the maintenance of traffic and the restoration of pavements and other surfaces.

Proposals must be in the form and on the blanks prescribed by the Commissions, and must be accompanied by two certified checks for $12,500 each.

Plans, form of contract and specifications may be obtained by prospective bidders from C. M. Holland, Chief Engineer, Room 614, Hall of Records, New York City. A payment of $5.00 will be required.

The Commissions reserve the right to reject any and all bids.

GEORGE R. DYER,
Chairman New York State Bridge & Tunnel Commission
WELLER H. NOYES,
Chairman New Jersey Interstate Bridge & Tunnel Commission

Bids: Sept. 21.

Dam, Pump House and Road Diversions

Norfolk, Va.

Sealed proposals will be received at the office of the city manager of the city of Norfolk, Va., until 12 o'clock noon, on the 21st day of Sept., 1920, for a dam, pump house and road diversions.

The work includes 11,000 cubic yards, more or less, of excavation below mean high tide; 150,000 cubic yards, more or less, of excavation for embankments for dam and road diversions; 3,500 cubic yards, more or less, of reinforced concrete; 13,000 linear feet, more or less, of eight-inch steel sheet piling; the construction of several small highway bridges; a pump house; an intake tower; a pile and timber wharf, and sundry piping and other appurtenances to the foregoing items.

Instruction to bidders, form of proposal, contract and form of bond, and plans and specifications may be inspected at the office of the Director of Public Works, Norfolk, Va., or at the office of the Consulting Engineer, Dabney H. Maury, 1445 Monadnock Block, Chicago, Ill., and a complete set of all of the above papers may be obtained either from the Director of Public Works or from the consulting engineer upon application accompanied by a check or postal order for twenty dollars, payable to B. Gray Tunstall, City Treasurer, which amount will be refunded to the party depositing it upon return of all of the foregoing papers in good order.

A certified check on some bank in the city of Norfolk, in the sum of $4,000.00, payable to B. Gray Tunstall, City Treasurer, must accompany each bid, subject to the conditions expressed in the form of proposal.

WALTER H. TAYLOR, III,
Director of Public Works.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Sept. 14.

Construction of Foundations

DEPARTMENT OF PUBLIC WORKS
BOARD OF TRUSTEES
THE FREE LIBRARY

Phila., Pa.

Sealed proposals will be received in Room 216 City Hall addressed to the Director, Department of Public Works, and the Board of Trustees, The Free Library of Philadelphia, until 12:00 o'clock noon on Tuesday, September 14th, 1920, and opened at that time in Room 202 City Hall for

The construction of the foundations for the Building of The Free Library of Philadelphia located on a plot of ground bounded by Vine, Nineteenth, Wood and Twentieth Streets, in the City of Philadelphia.

A certificate from the Law Department that the proposal bond has been filed must accompany each bid.

Bidders must fully acquaint themselves with all the legal and departmental regulations applying to contract work in the City of Philadelphia. See reference to various such rgulations in the specifications.

Plans will be delivered upon deposit of Fifteen ($15.00) Dollars with the Architect.

Copies of plans, drawings and specifications for the above work can be secured from Horace Trumbauer, Architect, 1406 Land Title Building, Philadelphia, to whom all inquiries for additional information may be addressed.

The Board of Trustees, The Free Library of Philadelphia.

JOHN ASHHURST, Librarian.
FRANK H. CAVEN, Director,
Department of Public Works.

Bids: Sept 24.

Construction of Pavement

Abilene, Tex.

The Commissioners of Abilene, Texas, will receive sealed bids not later than Sept. 24, 1920, for the Construction of about ten thousand square yards of Paving.

Alternate bids are asked for on Bitulithic, Asphalt Macadam, and Concrete Paving.

Payments will be made semi-monthly on Engineer's estimates, less 15%.

Certified check for $500.00 required with bid.

The City reserves the right to reject any or all bids.

M. L. SELLERS,
City Secretary.
C. C. GOMPERS,
Street Commissioner.
W. A. RINEY,
City Engineer.

Bids: Sept. 15.

Construction of Piers and Abutments

Portsmouth, N. H.

Sealed proposals, indorsed "Proposals for Piers and Abutments of the Piscataqua River Bridge" will be received by the Piscataqua River Bridge Commission at their office, City Hall, Portsmouth, N. H., until 11 o'clock a.m., standard time, (12 o'clock noon, daylight saving time), September 15, 1920, and then and there publicly opened and read for the construction of two piers and two abutments and work incidental thereto for the bridge to be built across the Piscataqua River between Portsmouth, N. H., and Kittery, Me.

Information with regard to surveys and borings, and with regard to local conditions, may be obtained by visit to the office of the Commission, and by inspection of the site of the proposed work.

The proposals will involve presentation by the bidders of proposed methods, accompanied by sketches thereof, of construction of piers, abutments, and incidental work located in deep running water.

An acceptable certified check for $20,000 will be required with the proposal when submitted, and an approved bond for 30% of the contract price will be required on execution of the contract.

Plans and specifications may be obtained on application to the Commission. Deposit of a check or postal money order for ten dollars, payable to the order of the Secretary of the Piscataqua River Bridge Commission, is required as security for the safe return of the drawings and specifications within five days after the award of the contract.

JOHN H. BARTLETT,
Secretary of the Piscataqua River Bridge Comm.

Bids: Sept. 15.

Construction of Bridge Superstructure

Portsmouth, N. H.

Sealed proposals, indorsed "Proposals for Superstructure of the Piscataqua River Bridge" will be received by the Piscataqua River Bridge Commission at their office, City Hall, Portsmouth, N. H., until 11 o'clock a.m., standard time, (12 o'clock noon, daylight saving time), September 15, 1920, and then and there publicly opened and read for the construction of the superstructure for a bascule bridge and two approach spans to be built across the Piscataqua River between Portsmouth, N. H., and Kittery, Maine.

Information with regard to conditions of erection and facilities at the site may be obtained by visit to the office of the Commission, and by inspection of the site of the proposed work.

An acceptable certified check for $20,000 will be required with the proposal when submitted, and an approved bond for 30% of the contract price will be required on execution of the contract.

Plans and specifications may be obtained on application to the Commission. Deposit of a check or postal money order for ten dollars, payable to the order of the Secretary of the Piscataqua River Bridge Commission, is required as security for the safe return of the drawings and specifications within five days after the award of the contract.

JOHN H. BARTLETT,
Secretary of the Piscataqua River Bridge Commission

Notice to Dredging Contractors

We would like to get into communication with some Dredging Concern for the purpose of re-dredging about one hundred and twelve miles of ditches, 14 foot bottom by an average depth of about 7 feet.

BELZONI DRAINAGE COMMISSION
S. CASTLEMAN,
President
C. E. MILLER,
Engineer
Belzoni, Mississippi.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 21	Norfolk, Va.	Aug. 26
	Adv. Aug. 26 to Sept. 16.	
Sept. 22	Richfield Springs, N. Y.	Sept. 9
	Adv. Sept. 9 and 16.	
Sept. 23	Wauseon, O.	Sept. 2
Sept. 27	Seattle, Wash.	Sept. 9
Oct. 11	Allentown, Pa.	Sept. 16
	Adv. Sept. 16.	
Oct. 14	Sacramento, Cal.	Sept. 16

SEWERS

Sept. 20	Long Island City, N. Y.	Sept. 16
Sept. 21	Grant City, Mo.	Sept. 9
Sept. 21	Paterson, N. J.	Sept. 16
Sept. 22	Brooklyn, N. Y.	Sept. 16
Sept. 30	Salt Lake City, Utah	Sept. 16
Oct. 4	Pontiac, Mich.	Aug. 26

BRIDGES

Sept. 20	Bonham, Tex.	Sept. 16
Sept. 21	Union, W. Va.	Sept. 2
Sept. 22	Monticello, Ga.	Sept. 9
Sept. 25	Farmville, Va	Sept. 9
Sept. 25	Hillsville Va.	Sept. 9
Sept. 30	New Orleans, La.	Aug. 26
Sept. 30	Wickenburg, Ariz.	Sept. 9

STREETS AND ROADS

Sept. 20	Vanceboro, N. C.	Sept. 2
Sept. 20	New Britain, Conn.	Sept. 9
Sept. 20	Long Island City, N. Y.	Sept 16
Sept. 20	Colorado	Sept. 16
Sept. 20	New York, N. Y.	Sept. 16
Sept. 20	St. George, S. I., N. Y.	Sept. 16
Sept. 20	Ft. Worth, Tex.	Sept. 16
Sept. 21	Eldorado, Tex.	Sept. 16
Sept. 21	Springfield, O.	Sept. 9
Sept. 21	New Orleans, La.	Sept. 9
Sept. 21	St. George, S. C.	Aug. 12
Sept. 21	Cimmarron, Kan.	Sept 9
Sept. 21	Willmar, Minn.	Sept. 9
Sept. 21	Maryland	Sept. 16
	Adv. Sept. 9 and 16.	
Sept. 21	Three Rivers, Mich.	Sept. 16
Sept. 22	Charleston, W. Va.	Sept. 2
Sept. 22	Hampton, Ia.	Sept. 16
Sept. 23	Columbus, O.	Sept. 16
Sept. 24	Abilene, Tex	Sept. 9
Sept. 24	Girard, Kan.	Sept. 9
Sept. 24	Missouri	Sept. 16
Sept. 24	Harris, Tex.	Sept 16
Sept. 27	Quebec, Que.	Sept. 9
Sept. 28	Kaufman, Tex.	Sept. 2
Sept. 28	Kaufman, Tex.	Sept. 9
Sept. 28	Grand Rapids, Mich.	Sept. 16
Sept. 28	New York	Sept. 16
	Adv. Sept. 16.	
Sept. 28	New Orleans, La.	Sept. 16
Sept. 28	Maryland	Sept. 16
	Adv. Sept. 16.	
Sept. 30	Alabama	Sept. 16
Oct. 1	Nashvile, N. C.	Sept. 16
Oct. 6	Faribault, Minn.	Sept. 16
Oct. 15	San Benito, Tex.	Sept. 16

RAILWAYS

Oct. 1	Ontario	Sept. 16

EXCAVATION AND DREDGING

Sept. 18	Oskaloosa, Ia.	Sept. 9
	Adv. Sept. 9 and 16.	
Sept. 21	Jefferson, Ia.	Sept. 16
Sept. 21	Webster City, Ia.	Sept. 16
Sept. 21	Red Oak, Ia.	Sept. 16
Sept. 22	Wapello Ia.	Sept. 9
	Adv. Sept. 9 and 16.	
Sept. 22	Mankato, Minn.	Sept. 9
Sept. 22	St. Joseph, Mo.	Sept 16
Sept. 23	Spirit Lake, Ia.	Sept. 16
Sept. 24	Burlington, Wis.	Sept. 16
Sept. 27	Eudora, Ark.	Sept. 2
	Adv. Sept. 2 to 16.	
Sept. 27	Helena, Ark.	Sept 9
Sept. 29	Covington, Tenn.	Sept. 16
Oct. 1	Harvel, Ill.	Sept. 16
Oct. 1	Mason City, Ia.	Sept. 16

INDUSTRIAL WORKS

Sept. 20	Cleveland, O.	Sept. 16
Sept. 20	Detroit, Mich.	Sept. 16
Sept. 20	Monroe, Mich.	Sept. 16
Sept. 29	Buffalo, N. Y.	Aug. 26
	Adv. Sept. 16.	
Nov. 1	Webb City, Mo.	Sept. 16

BUILDINGS

Sept. 18	New Castle, Pa.	Sept. 16
Sept. 20	Brooklyn, N. Y.	Aug. 26
Sept. 20	Baltimore, Md.	Sept. 16
Sept. 20	Minneapolis, Minn.	Sept. 16
Sept. 20	Detroit, Mich.	Sept. 16
Sept. 21	Springfield, O.	Sept. 2
Sept. 21	Cheyenne Wells, Col.	Sept 16
Sept. 22	Wiota, Ia.	Sept. 2
Sept. 22	Sparrows Point, Md.	Sept. 16
Sept. 23	Liberty, Mo.	Sept. 9
Sept. 25	Port Chester, Pa.	Sept. 16
Sept. 27	Ebensburg, Pa.	Sept. 9
Sept. 27	New Orleans, La.	Sept. 9
Sept. 28	Elvins, Mo.	Sept. 16
Oct. 1	Granite City, Ill.	Sept. 2
Oct. 3	Canton, O.	Sept. 9
Oct. 4	Great Neck, N. Y.	Sept. 16
	Adv. Sept. 16.	
Oct. 12	Huron, S. D.	Sept. 2

FEDERAL GOVERNMENT WORK

Sept. 21	Sound Deadening Wall and Ceiling Covering—Wilmington, N. C.	Sept. 2
Sept. 21	Concrete Paving—Spec. 4296—Mare Island, Cal.	Sept. 16
Sept. 22	Electric Traveling Cranes—Spec. 4239—Wash., D. C.	Sept. 16
Sept. 22	Water Supply Mains—Spec. 4200—Quantico, Va.	Sept. 16
Sept. 23	Refrigerating Machine — New Orleans, La.	Sept. 2
Sept. 25	Harbor Development—Spec. 4136—Great Lakes, Ill.	Aug. 19
Sept. 28	Surfacing — Albuquerque, N. M.	Sept. 16
Sept. 29	Drainage System — Spec. 4221 — Hampton Roads, Va.	Sept. 16
Sept. 29	Fleet Supply Storehouse—Spec. 4264—San Diego, Cal.	Sept. 16
	Adv. Sept. 16.	
Sept. 29	Electric Distributing System—Spec. 4286 — Brooklyn, N. Y.	Sept. 16
	Adv. Sept. 16.	
Sept. 30	Metal Work—Key West, Fla.	Sept. 2
Sept. 30.	Remodeling Post Office — Wilmington, N. C.	Sept. 16
Sept. 30	Earthwork—St. Louis, Mo.	Sept. 16
	Adv. Sept. 9 and 16.	
Oct. 6	Quartermasters Storehouse—Spec. 4280 — San Diego, Cal.	Sept. 16
Oct. 11	Conduit, Dam, etc.—Norfolk, Va.	Sept. 16
	Adv. Sept. 16.	
Oct. 11	Dredging — Providence, R. I.	Sept. 16
	Adv. Sept. 16.	
Oct. 11	Steel Barges — Memphis, Tenn.	Sept. 16
	Adv. Sept. 16.	
Oct. 13	Hospital Buildings—Spec. 4300—San Diego, Cal.	Sept. 16
Oct. 14	Dump Scows—Phila., Pa.	Sept. 16
Oct. 30	Hoisting Plant—Wahington, D. C.	Sept 16
	Adv. Sept. 16.	

MISCELLANEOUS

Sept. 20	Sewer Cleaner—Lockport, N. Y.	Sept. 2
Sept. 20	Borings—Long Island City, N. Y.	Sept. 16
Sept. 21	Dam, Pump House, etc.—Norfolk, Va.	Aug. 26
Sept. 21	Rapid Transit—New York, N. Y.	Sept. 9
Sept. 21	Shafts—New York, N. Y.	Sept. 2
	Adv. Sept. 2 to 16.	
Sept. 22	Breakwater—Chicago, Ill.	Aug. 19
Sept. 24	Motor Trucks, etc.—New York, N. Y.	Sept. 16
Sept. 27	Well, Well House, etc.—Sioux Falls, S. D.	Sept. 9
Sept. 28	Crushed Trap Rock or Lime Ston —Kaufman, Tex.	Sept. 9
Sept. 29	Sanitary Work—Utica, N. Y.	Sept. 16
	Adv. Sept. 16.	
Sept. 30	Transformers, etc.—Sacramento, Cal.	Aug. 19
Sept. 30	Wall—Chatham, Ont.	Sept. 16
Oct. 1	Pumping Engine—Janesville Wis.	Sept. 9
Oct. 6	Laundry Equipment—Binghamton, N. Y.	Sept. 16
	Adv. Sept. 16.	
Oct. 6	Tunnels Conduits, etc. — Marcy, N. Y.	Sept. 16
	Adv. Sept. 16.	
Oct. 13	Piles, Bulkhead, etc. — Brooklyn, N. Y.	Sept. 16
	Adv. Sept. 16.	
Oct. 13	Piers—Oswego, N. Y.	Sept. 16
	Adv. Sept. 16.	
Oct. 18	Locks—Chicago, Ill.	Sept. 16
	Adv. Sept. 16.	

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. J., Lawrenceville—Village applied to State Bd. of Conservation & Development, Trenton, for additional water supply of 24,000 gal. daily, from springs 5,000 ft. from here. J. E. Hullfish, dir.

Ia., New Market—City soon receives bids furnishing labor and material improving waterworks system, involving 18,730 lin.ft. 4-6 in. c.i. pipe, 8,480 lin.ft. 2 in. wrought iron, 13 fire hydrants, deep well pump and pump house, etc. About $36,000. E. T. Archer, New England Bldg., Kansas City, Mo., engrs.

Neb., Dannebrog—City soon receives bids building waterworks system, involving 9,450 ft. 4 in. c.i. pipe and 40,000 gal. tower. About $31,000. E. T. Archer & Co. New England Bldg., Kansas City, Mo., engrs.

Tex., San Benito—San Benito Water Co., recently organized, plans to install modern waterworks system. J. T. Lomax, C. G. Malott and B. M. Graeter, interested.

Waterworks (Continued)

Wash., Sumner—City soon receives bids laying new water mains and enlarging reservoir space at New Sumner Springs. About $75,000.

BIDS DESIRED

Pa., Allentown—Until Oct. 11, by M. W. Gross, mayor, Room 301, Central Fire & Police Station, furnishing and installing one 750 hp. steam turbine with reduction gears, one 12,000,000 gal. centrifugal pumping unit, one 500 hp. A.C. motor and one 3 stage 7,000,000 gal. centrifugal pump, etc., for pumping station; advertised in this issue.

Wash., Seattle—Until Sept. 27, (change of date) by city for 140,000 cu.yd. earth excav., and embankment work on new Volunteer Park Reservoir, cost $200,000. Ultimate plans call for lining reservoir, installing pipe and building walks, total expenditure $400,000. A. H. Dimock, city engr.

Cal., Sacramento—Until Oct. 14 (change of date), by M. J. Desmond, city clk., building intake and pumping works, also Contracts 3, 4, 5, 6, 7, 8, 9 and 10. Noted Aug. 19, under "Miscellaneous."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. J., Hightstown — Boro. let contract building waterworks pumping station, to J. Proctor Co., 74 Cortland St., New York City, $45,000; 90 ft. steel water tower of 150,000 gal. capacity, to Pittsburgh-Des Moines Steel Co., Curry Blk., Pittsburgh, $15,165; furnishing filtration plant equipment and 2 horizontal steel pressure filters, to New York Continental Jewel Filtration Co., Flatiron Bldg., New York City, $8,000. Noted Aug. 26.

★O., Cleveland—Seltzer-Round Realty Co., 6512 Detroit Ave., let contract laying watermains in Runnymeade Ave., involving 4,500 ft. 8 in. c. i. pipe, to A. Marra, Illuminating Bldg. About $25,000.

★Mich., Sprinkwells—Village let contract furnishing labor and material laying 5,000 ft. 6 in. c.i. water pipes on Edwin, Eugene, Freud and F. & P. M. Aves., to connect with Detroit watermains, to Oakwood Constr. Co., 165 Fort Blvd., Detroit. About $15,000.

Sewers

PROPOSED WORK

Va., Richmond — City plans election to vote on $1,500,000 bonds to build sewers in various streets. C. E. Bolling, city engr.

O., Cleveland—City plans to build sewer in East 82nd St. from Superior to Euclid Aves., involving 1,200 ft. 11 ft. concrete sewer. About $80,000. R. H. Hoffman, 618 City Hall, engr.

Mich., Detroit—City plans to build sewer in Michigan Ave. from Seymour to Western Aves., involving 24 in. to 6 ft. cylinder, vitr. crock for 24 in. size and brick or concrete for other sizes. C. W. Hubbell, city engr. Noted Aug. 12.

Mich., Detroit — City having plans prepared building 1.25 mi. sewer in Bates St. from River to Alfred St., 13½ ft. in diameter at outlet and 9 ft. at north end, reinforcon. or brick. About $1,500,000. C. W. Hubbell, city engr.

Mich., Sault Ste. Marie—City having plans and estimates made by Hoad & Decker, engrs., Eng. Bldg., Ann Arbor, for sewerage system for south side district, to include vitr. crock extensions, outlet section, etc. About $25,000.

Ia., Mallard—City soon receives bids furnishing labor and material building sewers, sewage disposal plant, sand filter and sludge bed. About $50,000. E. T. Archer & Co. New England Bldg., Kansas City, Mo., engrs.

Ia., New Market—City soon receives bids building sewers in various streets, involving 15,570 lin.ft. 8-12 in. vitr. pipe, 38 manholes, 7 flush tanks, septic tank and sludge bed. About $64,000. E. T. Archer, New England Bldg., Kansas City, Mo., engrs.

Wis., Hartford—State Bd. Health recommended city to engage engineer to prepare estimates for new sewerage system. About $100,000. Engineer not selected.

Wash., Tacoma—City having plans prepared laying 5 ft. 3 in. pipe sewer along Main Ave. from Lincoln St. and branches on all main downtown streets. About $330,000. A. D. Butler, Tacoma, engr.

Ont., Sandwich East—Township plans to build intercepting sewer pumping station and sewage disposal plant, involving 32,500 ft. 8-24 in. pipe. About $200,000. M. Knowles, Ltd., Heintzman Bldg., Windsor, engr.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 22, by E. Reigelmann, boro. pres., furnishing labor and material building sewers in New Utrecht Ave. E. S., between 63rd and 65th Sts., 15th Ave. and 67th St., 68th St. and Bay Ridge Ave., 70th and 71st Sts., 16th Ave. and 75th St., 76th and 77th Sts., 17th Ave. and 80th St., New Utrecht Ave., W. S., between 79th St. and 17th Ave., New Utrecht Ave. between 77th and 78th Sts., 80th and 81st Sts., 71st St. between New Utrecht and 16th Aves., 17th Ave., E. S., between New Utrecht Ave. and 79th St., East 24th St. between Aves. N and O, Warehouse Ave. from Surf Ave. to point 575 ft. south, East 24th St. (Mansfield Pl.) between Aves. L and M, 82nd St. between 20th and 21st Aves.

N. Y., Long Island City—Until Sept. 20, by M. E. Connolly, pres. Queens Boro., building sewers and appurtenances in Lyon Ave. from Ditmars Ave. to Gilmore St., Butler St. from Lyon to Banks Aves., Curtis St. from Lyon to Banks Aves., Ericsson St. from Lyon to Banks Aves., Gilmore St. from Lyon to Astoria Aves., 39th St. from Junction to Hayes Aves. About $655,287.

N. J., Paterson—Until Sept. 21, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, building Sect. 24 of Lowe St. branch intercepting sewer and Wood St. lateral sewer. Item 1 involves 1,170 lin.ft. earth excav. and refilling for 12 in. vitr. pipe with concrete reinforcement (including pipe); Item 2, 180 cu.yd. concrete masonry with Portland cement mortar in open excav.; Item 3, 50 cu.yd. brick masonry and appurtenant work in manholes, etc.; Item 4, 10 cu.yd. rock excav. in trench; Item 5, excav. and refilling for insertion of special structures in local sewers; Item 6, furnishing and installing 1 set sewage regulating apparatus; Item 7, furnishing and erecting 2 sets back-water gates in local sewers; Item 8, 6,000 lb. steel for concrete reinforcement. Cost to exceed $25,000. J. H. Quigg, clk.

Utah, Salt Lake City—Until Sept. 30, by city, extending 2 sewers, involving 64,000 ft. 8-21 in. 1st class vitr. and concrete pipe. About $310,000. S. Q. Cannon, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Portland—City let contract building Sect. 4, Fall Brook Branch Sewer, vitr. pipe, to R. Aceto, 76 Anderson St. About $25,000. Noted Aug. 26.

★Mass., West Springfield (Springfield P. O)—Town let contract building sewerage system in South Union and Palmer Sts., to C. D. Farnsworth Co., 16 Union St. About $51,000. Noted Aug. 26.

★Conn., Waterbury — City let contract building vitr. sewers in Meriden Rd. from Mill Plain School to Eastwood Ave., to Barbara & D'Aurio Co., 63 Bank St., $6.96 per lin.ft. Cost to exceed $25,000. Noted Mar. 11.

O., Cleveland—City received bids building sewer in Luke Rd. extension, from Amato Constr. Co., 345 The Arcade, $34,393; A. Joseph, 1200 Bolivar Rd., $36,598; J. J. Doneley, 1251 East 84th St., $37,169.

Mich., Detroit—City received bids furnishing labor and material (except iron manhole rings and covers) building vitr. crock sewers as follows: (a) 1,469 ft. Lateral 3,325, 12-24 in. crock, (b) 4,660 ft. 3,337, 12-15 in., (3) 327 ft. 3,338, 12 in., (d) 2,849 ft. 3,339, 12-20 in. (e) 583 ft. 3,340, 12 in., (f) 1,071 ft. 3,342, 12-15 in., (g) 2,830 ft. 3,343, 12-20 in., (h) 5,391 ft. 3,344, 12-20 in., (i) 3,143 ft. 3,345, 12-20 in., (j) 5,824 ft. 3,347, 12-18 in., from S. Duponovich, 400 Penobscot Bldg., (a) $8,114, (c) $1,026, (e) $2,264; R. D. Baker, Penobscot Bldg., (b) $33,900, (g) $22,900, (h) $38,780, (j) $43,770; J. S. Vintrelle, 400 Penobscot Bldg., (c) $1,823; Western Constr. Co., 1208 Ford Bldg., (d) $19,700, (g) $18,858, (h) $24,866, (i) $17,356, (j) $31,702; Liberty Constr. Co., 917 Chamber of Commerce Bldg., (e) $2,830, (f) $4,604.

★Mich., Detroit—City let contract to A. H. Haynes, 70 Davenport St., furnishing labor and material for building Lateral Sewer 3,302, $4,350; to N. Mancini, 580 Concord Ave., 3,307, $11,100, 3,324, $29,000; to Lennane Bros., 809 Union Trust Bldg., 3,309, $23,029, 3,322, $26,970; to Oakwood Constr. Co., 165 Fort Blvd., 3,311, $11,770, 3,312, $8,180, 3,323, $43,500, 3,328, $17,606, 3,329, $14,600, 3,331, $14,621; to Liberty Constr. Co., 917 Chamber of Commerce Bldg., 3,321, $15,683; to R. D. Baker, 1454 Penobscot Bldg., 3,327, $5,850, 3,330, $14,600; to Western Constr. Co., 1208 Ford Bldg., 3,332, $53,566, 3,181, $20,371; to Lennane & McIlvenna, 1205 Book Bldg., 3,232, $11,750. Noted July 15 and 29.

Bridges

PROPOSED WORK

Vt., Sherburn—Town plans to build concrete bridge over Stony Branch. About $25,000. Address H. M. McIntosh, Montpelier, state engr.

N. Y., Buffalo—Niagara Bridge & Tunnel Co. plans to build steel span railroad, trolley and foot bridge from here to Bridgeburg, Ont. About $4,000,000. Plans may be secured from G. W. Kittredge, engr. New York Central R.R., Grand Central Terminal, New York City.

N. J., Jersey City—Hudson Co. Bdge. Comn. rejected bids for repairing bridge over Pennsylvania R.R. tracks. New bids in spring. Noted Aug. 26.

N. J., Jersey City—Pennsylvania R.R. Broad St. Sta., Phila., plans to build new bridge over tracks on Tonnelle St., here. About $25,000. A. C. Shand, ch. engr.

Ala., Montgomery—Louisville & Nashville R.R., 9th Ave. and Bway., Louisville, Ky., plans to build 3 span bridges over Alabama River, near here. W. H. Courtenay, ch. engr.

Wis., Neillsville—City having plans prepared for 224 ft. steel truss bridge, 20 ft. wide, on Grand Ave. Wisconsin Highway Comn., Madison, engrs.

Missouri—State Highway Dept., Jefferson City, plans to build rein.-con. through girder superstructure and 2 rein.-con. abutments, over Jordans Creek, on Sta. 803 plus 70 of Preston-Collins Rd., Federal Aid Project 86, to have one 40 ft. span, 18 ft. roadway, involving 33.2 cu.yd. 1, 2 and 4 concrete, 13,960 lb. reinforcing steel; rein.-con. slab superstructure, 2 rein.-con. abutments and 1 pier, over Turkey Creek, on Sta. 150 plus 65, Federal Aid Project 69, Hickory Co., to have two 16 ft. spans, 18 ft. roadway, 3.3 cu.yd. Class "A" and 86.1 cu.yd. Class "B" concrete, 5,650 lb. reinforcing steel; rein.-con. skew through girder superstructure, 2 rein.-con. abutments, on Sta. 155 plus 40, to have one 30 ft. span, 18 ft. roadway, 122 cu.yd. 1:2:4 concrete, 10,290 lb. reinforcing steel; rein.-con. slab superstructure, 2 rein.-con. abutments and 3 concrete piers, on Sta. 70 plus 85, to have four 20 ft. spans, 18 ft. roadway, 7.8 cu.yd. 1:2:3 and 396.6 cu.yd. 1:2:4 concrete, 26,180 lb. reinforcing steel, both on above project; one 74 ft. 2 in. pony truss span and 2 mass concrete abutments, 18 ft. roadway, over Drainage Ditch, on Sta. 401, Federal Aid Project 5, Scott Co., 28.6 cu.yd. 1:2:3 and 89 cu.yd. 1:3:5 concrete, 530 lb. reinforcing and 18,000 lb. fabricated structural steel, 8,150 ft. lumber; one 70 ft. pony truss and 2 mass concrete abutments, 18 ft. roadway, over St. Johns Drainage Ditch, on Sta. 266 plus 30, 23.7 cu.yd. 1:2:3 and 51.2 cu.yd. 1:3:5 concrete, 300 lb. reinforcing and 34,500 lb. fabricated structural steel, 6,800 ft. lumber; one 38 ft. I beam superstructure and 2 mass concrete abutments, 18 ft. roadway, over Ash Slough Drainage Ditch, on Sta. 26 plus 40, 24 cu.yd. 1:2:3 and 72.6 cu.yd. 1:3:5 concrete, 460 lb. reinforcing and 17,200 lb. structural steel, 4,100 ft. lumber; one 50 ft. pony truss and 2 mass concrete abutments, 18 ft. roadway, over Drainage Ditch on Sta. 11, 68.4 cu.yd. 1:3:5 and 21.4 cu.yd. 1:2:3 concrete, 490 lb. reinforcing and 23,300 lb. fabricated structural steel, 5,000 ft. lumber; all on above project.

BIDS DESIRED

O., Cleveland—Goff-Kirby Coal Co., Electric Bldg., receiving bids building 1,200 ft. concrete and wood overhead trestle on East 39th St. and Payne Ave. About $40,000. Private plans.

Tex., Bonham—Until Sept. 20, by Bd. Dir. Bonham Red River Bridge Co., building 4 spans suspension bridge over Red River, 2,500 ft. long, 20 ft. wide. About $300,000. F. M. Cortelyou, Kansas City, Mo., engr. Noted Sept. 2.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Biddeford—Comrs. York Co. let contract building Bradbury Bridge, rein.-con., 45 ft. wide, on Elm St., to Rendle-Stoddard Co., 321 Marginal St., Chelsea, Mass., $128,250, (175 days) Noted Sept. 2.

★Vt., Brattleboro—Town let contract building 330 ft. single span steel bridge over Connecticut River, to United Constr. Co., 24 James St., Albany, N. Y. About $69,000. Noted June 3.

★Vt., Wheelock—Town let contract building concrete bridge over Millers Run River to W. E. Dix Corp., Springfield. About $25,000.

Bridges (Continued)

Pa., Harrisburg—State Bd. Pub. Grounds & Bldgs. received lowest bid Sept. 1 building Soldiers' & Sailors' Memorial Bridge, steel and concrete, in Capitol Park, from Central Constr. & Supply Co., Commonwealth Trust Bldg. About $4,500,000. Noted Aug. 26.

★O., **Akron** — Summit Co. let contracts building State St. bridge in Barberton to Hobey & Faunier, Akron, $20,500; Munroe Falls bridge, over Munroe Falls, to N. R. Porterfield, Youngstown, $40,000.

Missouri — State Highway Dept., Harrisonville, received bids Sept. 1, from Western Bridge Co., Harrisonville, building rein.-con. deck girder superstructure and 2 rein.-con. abutments, on Sta. 6 plus 03, to have one 24 ft. span, 18 ft. roadway, involving 2.6 cu.yd. Class "A" and 116.1 cu.yd. Class "B" concrete, at $90 and $36 respectively, 10,400 lb. reinforcing steel, $0.07, cost $5,195; rein.-con. deck girder superstructure, 2 rein.-con. abutments and 1 concrete pier, on Sta. 118 plus 60, to have two 28 ft. spans, 18 ft. roadway, 5.5 cu.yd. Class "A," 190.9 cu.yd. Class "B" and 58.3 cu.yd. Class "C" concrete, $75, $32 and $25 respectively, 21,520 lb. reinforcing steel, $0.07, $10,107; rein.-con. spandrel filled arch bridge, on Sta. 137 plus 40, to have two 50 ft. spans, 18 ft. roadway, 13.9 cu.yd. Class "A" and 421.2 cu.yd. Class "B" concrete, $60 and $35.40 respectively, 42,420 lb. reinforcing steel, $0.07, $18,714, all on Sect. A, Federal Aid Project 20. Noted Aug. 26, under "Streets and Roads."

Ia., Pocahontas—Pocahontas Co. received bids Sept. 2, building Group 1, (consisting of items 1, 2, 3, 8, 9 and 10), three 16 x 16 ft., one 16 x 22 ft., and one 16 x 32 ft. I-beam bridges and one 16 x 50 ft. pony truss bridge; Group 2, (items 4, 5, 6 and 7) one 16 x 50 ft., one 20 x 50 ft. and two 20 x 55 ft. pony truss bridges, from C. L. Schouboe, 1543 33rd St., Des Moines, (1) $25,055; G. F. Lambert, 715 21st St., Des Moines, (1) $26,085, (2) $35,608; F. E. Marsh & Co., Jefferson, (1) $26,450, (2) $35,600; Vinton Eng. & Constr. Co., Vinton, (1) $31,214. Noted Aug. 26.

Kan., Topeka—Shawnee Co. received bids Sept. 3, building 130 ft. span rein.-con. rainbow arch bridge, 20 ft. roadway, near Wakarusa, from N. E. Marsh & Co., 205 Masonic Temple, Des Moines, Ia., $38,751; C. C. Clark, Leavenworth, $40,800; F. Littlejohn, Topeka, $57,464. Noted Aug. 26.

N. D., Mott—Hettinger Co. received bids building two 75 ft. span rein.-con. rainbow arch bridge, 20 ft. roadway and one 5 ft. sidewalk, involving 598 cu.yd. rein.-con., 29.4 ton steel, and 2,320 lin.ft. wood piling, from J. D. Beery, Mott, $40,181; Iowa Bridge Co., 812 Hubbell Bldg., Des Moines, Ia., $45,798; Fargo Bridge Co., Fargo, $54,355.

Streets and Roads

PROPOSED WORK

N. Y., Brooklyn—E. Reigelman, boro. pres., received no bids Aug. 25, regulating and repaving Ralph Ave. Noted Sept. 2.

N. Y., Brooklyn—E. Riegelmann, boro. pres., rejected bids Aug. 25th, regulating and repaving East 7th and 64th Sts. Work will be readvertised. Noted Sept. 2.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids Aug. 24 improving roadway of 48th and 49th Sts. Noted Aug. 19.

N. J., Camden—Bd. Freeholders, Camden Co., receives bids about Sept. 28, improving 3 mi. Kings Highway, concrete. J. J. Albertson, Magnolia, engr.

N. J., Mays Landing—Bd. Freeholders, Atlantic Co., plans to rebuild 9 mi. of boulevard between Absecon and Chestnut Neck. A. H. Nelson, Guarantee Trust Bldg., Atlantic City, engr.

N. J., Morristown—Bd. Freeholders, Morris Co., plans to improve 14 mi. Morris Turnpike. About $700,000. H. W. Vetter, Belvidere, engr.

N. J., North Bergen (Weehawken P. O.)—City having plans and specifications made for paving 31st St., bituminous. Cost to exceed $75,000. P. F. Daly, 32nd St., engr.

N. J., Trenton—City plans to build 1.25 mi. street over Assanpink Creek from State St. to Nottingham Way, also place flume in stream. A Swan, city engr.

Minn., Aitkin—Aitkin Co. rejected bids Sept. 7, grading 9 mi. Federal Aid Project 149, State Rd. 3, involving 10 acres clearing, 13 acres grubbing, 38,153 cu.yd. excav., 113,252 cu.yd. overhaul, 487 lin.ft. 15-36 in. sectional concrete cover culverts, 163 cu.yd. concrete in culverts, removal of 2 old bridges, etc. F. J. O'Hara, Aitkin, engr. Noted Aug. 12.

Minn., Duluth—City plans to pave 6,900 ft. Superior St. from 8th Ave. W. to 3rd Ave. E., concrete, cost $180,000; 12,320 ft. Woodland Ave. from 4th St. E. to Austin St., asphalt, $200,000; 9,200 ft. East Superior St. from 3rd Ave. E. to 23rd Ave. E., concrete, $150,000; 7,580 ft. 2nd St. from 5th Ave. W. to 13th Ave. E., concrete, $125,000; 24,380 ft. London Rd. from 8th Ave. E. to 61st St. E., concrete, $200,000. E. K. Coe, city engr.

Minn., Two Harbors—Lake Co. soon receives bids grading 14 mi. road from Finland to Ely. About $55,000. H. C. Hanson, Two Harbors, engr.

Neb., Pawnee City—City having preliminary plans prepared for paving 25 blocks, 30-60 ft. wide, vitr. brick. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

Neb., Wisner—City soon receives bids building 32 blocks various streets, 24-70 ft. wide, involving 20,000 sq.yd. vitr. brick. About $330,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

Missouri—State Highway Dept., Jefferson City, plans to build 7 mi. Carthage-Springfield Rd., 24 ft. wide, involving 39,320 cu. yd. earth and 650 cu.yd. rock excav., one 36 ft. span bridge, and 1 bridge to have three 18 ft. spans, cost $31,818; 31.5 mi. Oklahoma-St. Louis Rd., 24 ft. wide, both in Green Co., 88,754 cu.yd. earth excav., 42,040 sq.yd. 4 in. x 16 ft., 112,116 sq.yd. 5 in. x 16 ft., and 70,043 sq.yd. 8 in. x 16 ft. macadam, 45,760 sq.yd. 8 in. x 12 ft. gravel surfacing, 14 culverts and extensions to 8 old culverts, $143,182.

Missouri—State Highway Dept., Palmyra, received no bids Aug. 21, improving 10.26 mi. Sect. A, Hannibal-West Ely Div. of Pikes Peak Ocean to Ocean Highway, 24 ft. wide, Federal Aid Project 62, Marion Co., $78,609; building culverts on Sect. B, $11,434; rein.-con. through girder superstructure, over Bear Creek, on Sta. 265 plus 12, on above project, to have one 40 ft. span, 18 ft. roadway, $7,475; rein.-con. skew through girder superstructure, over Bear Creek, on Sta. 408 plus 22, to have one 40 ft. span, 18 ft. roadway, $6,835; rein.-con. through girder superstructure, over Minow Branch, on Sta. 14 plus 52, to have one 40 ft. span, 18 ft. roadway, $7,365. Noted Aug. 12.

Mo., Milan—City soon receives bids paving 10 streets, 30-60 ft. wide, involving 14,000 sq.yd. vitr. brick on 3 in. concrete base. About $96,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

Mo., Unionville—City plans to pave 15 streets, 18-51 ft. wide, involving 24,000 sq.yd. vitr. brick on 3 in. concrete base. About $150,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

Tex., San Antonio—City soon receives bids surfacing and paving 5 mi. Rock Quarry Rd. and Kendall St., 16 ft. wide, asphalt. H. Helland, city engr.

Tex., Texarkana — City issued $300,000 bonds to pave main streets.

Okla., Sulphur—City had plans prepared furnishing labor and material paving various streets, involving 8,000 sq.yd. brick and 56,000 sq.yd. rock asphalt on 4 in. concrete base. About $300,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

Colorado—State Highway Dept., Denver, plans to grade .89 mi. Colorado-Springs-Canon City Rd., State Route 22, 28 ft. wide, Fremont Co., cost $39,500; 12 mi. Cotchetopa Pass Rd., 28 ft. wid, Saguache Co., $53,000; grade and surface 11 mi. road from El Paso Co. line to Florence, State Route 9, 28 ft. wide, Sedgwick Co., involving 11,000 yd. gravel, $69,000.

Col., Denver — City plans to pave 12 blocks in Alley Paving Dist. 59, involving 11,500 sq.yd. 6 in. concrete, cost $28,912; 11 blocks in Alley Paving Dist. 60, 8,300 sq.yd. concrete, $22,942. J. B. Hunter, city engr.

Ont., Ottawa—Bd. Control soon receives bids paving Carling Ave. from Fisher to Merivale Aves., cost $15,100; King Edward Ave. from Mann Ave. to Somreset St., $24,300; Augusta St. from Rideau to Wilbrod Sts., $15,600; Coburg St. from Rideau to Wilbrod Sts., $17,400; and Somerset St from Nicholas St. to Range Rd., $59,800, all asphalt. A. F. Macallum, city engr.

BIDS DESIRED

New York—Until Sept. 28, by F. S. Greene, state highway comr., 55 Lancaster St., Albany, completing 8.85 mi. highway in Essex Co.; 3.96 mi. Greene Co.; 2.99 mi Nassau Co.; .59 and .5 mi. Rockland Co. and 9.57 mi. Suffolk Co.; advertised in this issue.

N. Y., Long Island City—Until Sept. 20 by M. E. Connolly, pres. Queens Boro., regulating and grading gutters and setting curbs on Arcadia Ave. from 14th to 16th Aves.; regulating, grading, curbing and laying sidewalks and gutters on Havemeyer St. from 51st St. to Peartree Ave. and Peartree Ave. from Kingsland to Roosevelt Aves.; regulating and repaving with asphaltic concrete Rockaway Blvd. from Nortons Creek to Cronins Crossing, Strongs Causeway from Colonial Ave. to North Hempstead, Shell Rd. from Jackson Ave. to 20th St., Elmhurst, Cooper Ave. from Myrtle Ave. to Montauk Div. of Long Island R.R.; sheet asphalt on concrete foundation, Bridge Plaza North and South from Crescent St. to point 100 ft. east of Radde St., 8th Ave. from Graham to Jamaica Aves., 1st Ave. from Rway. to Grand Ave., Prospect St. from Bridge Plaza North to Payntar Ave.; improved granite block on concrete foundation, Bridge Plaza from point 100 ft. east of Radde St. to Jackson Ave., Bridge Plaza North and South within line of Crescent St., College Point Causeway from 9th Ave. to point 850 ft. south, Lawrence St. from Rway. to Myrtle Ave. About $878,000.

N. Y., New York — Until Sept. 20, by Armory Bd., City Hall, laying asphaltic mastic floor, installing ash conveyor and completing lighting fixtures, 8th Coast Artillery Defense Command Armory, Jerome Ave. and Kingsbridge Rd., Bronx; completing lighting fixtures and for fixed seating in Drill Shed, Squadron "A" Armory, 94th St. and Park Ave.; underpinning northwest corner, 14th Regiment Armory, 8th Ave. and 15th St., Brooklyn; altering, overhauling, installing shower baths, etc., 12th Regiment Armory, 62nd St. and Columbus Ave.; rebuilding curb wall, coal vault, etc., south side of 34th St., 71st Regiment Armory.

Maryland—Until Sept. 21, by State Rd. Comm., 601 Garrett Bldg., Baltimore, paving 2.28 mi. road from Frederick Rd. at Haugh's blacksmith shop to Ijamesville (Contr. F-39) Frederick Co., 2.55 mi road from Grove to Fowling Creek (Contr. Co-39), Caroline Co., both concrete. J. N. Mackall, chn.; advertised in this issue.

Maryland—Until Sept. 28, by State Rd. Comm., 601 Garrett Bldg., paving Falls Rd. from Ridge Church 1 mi. south, (Contr. B-40) Baltimore Co.; 1.53 mi. road from end of Contr. P-17 along Central Ave. toward Halls Sta., (Contr. P-23), Prince George Co.; 1.5 mi. Defence Highway from end of Contr. P-16-A toward Lanham, (Contr. P-22), Prince George Co., all concrete. J. N. Mackall, chn.; advertised in this issue.

Maryland—Until Sept. 28, by State Rds. Comm., 601 Garrett Bldg., Baltimore, building one section State Highway from Rock Hall Ferry Landing to 1 mile toward Rock Hall, concrete, Kent. Co., Cont. K-14; advertised in this issue.

N. C., Nashville—Until Oct. 1, by Bd. Aldermen, paving various city streets; advertised in this issue.

Alabama—Until Sept. 30, by State Highway Dept., Montgomery, building 12.05 mi. chert and gravel road between Florence and Tennessee state line, involving 49.4 acres clearing and grubbing, 86,059 cu.yd. earth and 1,000 cu.yd. rock excav., 439.8 cu.yd. Class "A" and 250.78 cu.yd. Class "B" concrete, 11,300 cu.yd. gravel, 17,000 cu.yd. chert, and 1,190 lin.ft. 18-24 in. pipe; grading, surfacing and draining 5.44 mi. road between Girard and Tuskogee, Russell Co., involving 4.3 acres clearing, and grubbing, 21,405 cu.yd. excav., 16.1 cu.yd. Class "A" and 82.08 cu.yd. Class "B" concrete, 13,407 cu.yd. sand-clay surfacing, and 150 lin.ft. 4 in. tile, and 894 lin.ft. 18-24 in. pipe. About $200,000 and $55,000 respectively. W. S. Keller, state highway engr.

La., New Orleans—Until Sept. 28, by city, paving 24,600 yd. Magazine St., 3,000 yd. Callipoe St. and 2,250 yd. Gayoso St., small granite block, vitr. brick or block, or

Streets and Roads (Continued)

creosoted wood block; 7,400 yd. North Clairborne Ave., and 4,330 yd. Julia St., bitulithic, bituminous concrete, refined Trinidad Lake asphalt, sheet asphalt or creosoted wood block, 29,866 yd. Algiers Outfall Canal Rd., 6,600 yd. General Meyer St., 4,444 yd. Behrman Ave., 38,000 yd. Stanton Beka Rd. and 16,000 yd. Elmira St., concrete, clay, gravel or chert. W. B. Davey, city engr.

O., Columbus—Until Sept. 23, by Comrs. Franklin Co., grading, draining and paving 1.17 mi. Sect. 1 Hess Rd., 16 ft. wide, waterbound macadam. About $32,467. C. C. Lathimer, co. engr. Noted Aug. 19.

Michigan—Until Sept. 21, by State Highway Dept., at office of City Clerk, Three Rivers, grading and surfacing .714 mi. State Trunk Line Rd. 13-17, Sect. A. 20 ft. wide, involving 8,386 sq.yd. concrete and 1,230 cu.yd. earth excav. State Highway Dept., Lansing, engr.

Mich., Grand Rapids—Until Sept. 28, by Bd. Rd. Comrs. Kent Co., grading, draining and surfacing 3.647 mi. State Trunk Line Rd. 44-3, 16 ft. wide, involving 26,712 cu.yd. earth excav., 34,236 sq.yd. gravel, etc. State Highway Dept., Lansing, engrs.

Ia., Hampton—Until Sept. 22, by Comrs. Franklin Co., surfacing 9.84 mi. various roads, involving 51,209 cu.yd. excav., 55,048 lin.ft. 6-12 in. tile, 14,766 cu.yd. gravel surfacing, etc. F. S. Currie, Hampton, engr.

Minn., Faribault—Until Oct. 6, by Rice Co., graveling 7 mi. Job 1901, involving 30,634 cu.yd. gravel and 12.6 mi. Job 1903, 35,260 cu.yd. gravel. About $75,000. P. L. Hazard, Faribault, engr.

Missouri—Until Sept. 24, by State Highway Dept., New London, building 5.32 mi. Sect. A, Red Ball Route, Federal Aid Project 66, 26 ft. wide, Ralls Co., involving 18,084 cu.yd. earth and 1,640 cu.yd. rock excav., 14,943 cu.yd. borrow, 500 cu.yd. per 100 ft. overhaul, 194.5 cu.yd. Class "B" concrete masonry, 11,511 lb. reinforcement for concrete masonry, 37,525 sq.yd. gravel pavement specification B, cost $47,885; also rein.-con. slab superstructure and 2 mass concrete abutments, on Sta. 79 plus 06, on London-Perry Rd., to have one 20 ft. span, 18 ft. roadway, 2.1 cu.yd. Class "A," 29.3 cu.yd. Class "B" and 41 cu.yd. Class "C" concrete, 3,307 lb. reinforcing steel, $2,268; rein.-con. slab superstructure and 2 mass concrete abutments, on Sta. 97 plus 92, on London-Perry Rd., to have one 20 ft. span, 18 ft. roadway, 2.1 cu.yd. Class "A," 29.3 cu.yd. Class "B" and 37.3 cu.yd. Class "C" concrete, 3,378 lb. reinforcing steel, $2,178.

Missouri—Until Sept. 24, by State Highway Dept., New London, building 4.11 mi. Sect. A, London-Perry Rd., 24 ft. wide, Federal Aid Project 64, involving 21,700 lin. ft. grading, 28,983 sq.yd. gravel pavement specification "C," 56.8 cu.yd. Class "B" masonry, 3,674 lb. reinforcement for concrete masonry, cost $20,662; 5.57 mi. Sect. A, London-Perry Rd., 24 ft. wide, Federal Aid Project 67, 29,400 lin.ft. grading, 39,407 sq.yd. gravel pavement specification "C," 30.9 cu.yd. Class "B" concrete masonry, 2,000 lb. reinforcement for concrete masonry, $26,339; 3.35 mi. Sect. A, London-Perry Rd., 26 ft. wide, Federal Aid Project 63, 17,700 lin.ft. grading, 23,600 sq.yd. gravel pavement, specification "C," 15.9 cu. yd. Class "B" concrete masonry, 1,300 lb. reinforcement for concrete masonry, $15,644; 4.58 mi. Sect. A, London-Perry Rd., 26 ft. wide, Federal Aid Project 65, all in Ralls Co.; 24,400 lin.ft. grading, 32,291 sq.yd. gravel pavement specification "C," 24.1 cu.yd. Class "B" concrete masonry, 1,128 lb. reinforcement for concrete masonry, $21,424.

Tex., Eldorada—Until Sept. 21, by C. A. Womack, judge Schleicher Co., grading, surfacing and building culverts on 4.01 mi. Highway 4 south from here, 16 ft. wide, involving 3,562 cu.yd. borrow and 9,553 cu.yd. earth excav., 21.55 cu.yd. Class "A" and 13.6 cu.yd. Class "C" concrete, etc. $88,626. R. Stevenson, Eldorado, engr.

Tex., Ft. Worth—Until Sept. 20, by W. E. Yancy, aud. Tarrant Co., grading and draining 8.74 mi. White Settlement Rd. from Five-Mile Bridge to Parker Co. line; Arlington-Grapevine Rd. from Sta. 175 plus 81 to Sta. 273 plus 50, 1.76 mi. from Trinity River north to Rock Island R.R.

Tex., Paris—Until Sept. 24, by W. L. Hutchinson, judge Lamar Co, grading and building rein.-con. bridges and culverts on 22.16 mi. Highway 19 from Delta Co. to Oklahoma state line, 24 ft. wide, involving 7.82 acres clearing and grubbing, 173,178 cu.yd. borrow, 128,274 lb. reinforcing and 16,059 lb. structural steel, 1,141 cu.yd. Class "A," 280.8 cu.yd. Class "B" and 24.3 cu. yd. Class "C" concrete, etc., cost $141,130; 27.7 mi. Highway 5 from Fannin Co. to Red River, 24 ft. wide, 29.6 acres clearing and grubbing, 165,068 cu.yd. earth borrow and 1,000 cu.yd. solid rock excav., 159,593 lb. reinforcing and 68,400 lb. structural steel, 1,619 cu.yd. Class "A" and 668.5 cu.yd. Class "B" concrete, $144,314; 4.85 mi. Highway 5 through here, 16 ft. wide, 6,790 cu.yd. borrow and 4,926 cu.yd. earth excav., 45,511 sq.yd. bituminous macadam, 12,641 cu.yd. crushed stone, 34,134 lin.ft. scarifying and 51,200 lin.ft. concrete curb, $172,477; 6.85 mi. Highway 19, east and west of here, 16 ft. wide, 14,000 cu.yd. borrow and 4,507 cu.yd. unclassified earth excav., 34,146 lin.ft. scarifying, 45,527 sq. yd. bituminous macadam, 51,218 lin.ft. concrete curbing, 101.6 cu.yd. Class "A" concrete, 7,049 reinforcing steel, and 12,646 cu.yd. crushed stone surfacing, $173,769.

Tex., San Benito—Until Oct. 15, by City Council, paving Sam Houston Ave. from Landrum to Heywood Sts., involving 88,565 sq.ft. pavement. R. I. Agar, city engr.

Colorado—Until Sept. 20, by State Highway Dept., Denver, grading, draining and surfacing 6½ mi. Moffat Highway, between Craig and Maybell, Moffat Co., 16 ft. wide, involving 28,250 cu.yd. earth and 1,470 cu.yd. rock excav., 88 cu.yd. Class "A" and 116 cu.yd. Class "B" concrete and 10,174 cu.yd. gravel surfacing. About $69,000. J. E. Maloney, State Museum Bldg., Denver, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Vt., Bennington**—Village let contract paving and building storm sewers in various streets, to C. B. Lindholm, 24 North St., Pittsfield, Mass. About $85,000; cost plus percentage basis. Noted July 15.

★**Massachusetts**—State Bd. Pub. Rds., Div. Highways, Boston, let contracts building 2,100 lin.ft. bituminous macadam highway, Dracut, to A. Ballotto, Dracut, $9,543; state highway, Princeton, to C. Bianchi & Co., Framingham, $32,225, 3,700 ft. bituminous macadam highway, Agawam, to Lane Constr. Co., 37 Colony St., Meriden, Conn., $16,230.

★**Massachusetts**—State Highway Dept., Boston, let contract building state road at Danvers, to Welch & Moynihan, Salem, $25,960.

★**Massachusetts**—State Highway Dept., Boston, let contract building 5,032 Mountain Rd., Holyoke, bituminous macadam, to D. O'Connellls Sons, 480 Hampden St., Holyoke, $50,609. Noted Sept. 9.

★**Mass., Boston**—City let contract paving and regulating track area on Belgrade Ave. and Centre St., to Boston Elevated Ry. Co., 101 Milk St. About $65,000.

★**N. Y., Brooklyn**—E. Reigelmann, boro. pres., let contract regulating and repaving Bedford Ave., to Consolidated Constr. Co., 83 Manhattan St., New York City, $237,782; East 10th and 56th Sts., to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $15,929 and $14,158 respectively; 20th St., to Uvalde Asphalt Paving Co., 1 Bway., New York City, $13,682; Flatbush Ave., to M. J. O'Hara, $171,596; East 7th and East 17th Sts. and Mansfield Pl., to Wolfman & Greenbaum, 644 Saratoga Ave., $2,495, $8,988 and $9,913 respectively; Warehouse Ave., to J. J. Guinan, 2314 Gravesend Ave., $11,416; 20th Ave., to Caponi Constr. Co., 1320 65th St., $2,443. Noted Aug. 19 and Sept. 2.

N. Y., Brooklyn—E. Reigelmann, boro. pres., received bids Sept. 8, improving (a) Ferris St., (b) Ave. L., (c) Neptune Ave., (d) Sullivan Ave., (e) Van Dyke St., (f) 3rd St., (g) furnishing and delivering 40,000 wood paving blocks, from C. Gallagher, (a) $33,019, (c) $5,664, (d) $39,706, (f) $25,818; F. J. Gallagher, 490 Park Pl., (a) $33,833, (d) $40,204, (e) $16,923; Leonard Paving Co., 233 Bway., New York City, (a) $34,821, (d) $41,621, (e) $17,042; F. Persicano, (b) $2,877; Caponi Constr. Co., 1320 65th St., (b) $3,048; Grimm Constr. Co., (b) $3,398; Murphy Bros., (c) $6,455; Ward & Tully, 2,047 West 11th St., (e) $7,049; Grecco Bros., (e) $17,284, (f) $27,472; M. J. O'Hara, (f) $26,305; Amer. Creosoting Co., 17 Battery Pl., New York City, (g) $3,480. Noted Sept. 2.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Sept. 3 improving (a) Park Lane, (b) 42d St., (c) 94th St., (d) Harper Ave., (e) filling lot on side of Tompkins Pl., from Gibbet Constr. Co. (a) $95,350; Saverio & Britton, (a) $99,100; R. J. Johnson, 204 58th St., New York City, (a) $100; Kennedy & Smith, 94 Main St., Flu., (b) $1,950; R. A. Hesse, (b) $1,981; $975; L. J. Rice, (b) $2,050; Uvalde Asphalt Paving Co., 1 Bway., New York, (c) $29,571; Sicilian Asphalt Paving, 41 Park Row, New York City, (c) $32; Welsh Bros., 14 Queens St., Astoria, $9,500; Tuohy & Upton, 98 Main St., Flushing, (d) $13,400, (e) $925; Pease & (d) $14,000; C. Kurth, (e) $875. Noted Aug. 26.

N. Y., New York—H. Bruckner, pres. Bronx Boro., received bids Aug. 25 repaving with sheet asphalt Clermont Park from Webster to Park Aves., from Uvalde Asphalt Paving Co., 1 Bway., $37,979; L. Brusstar, Harlem River and 150th St., $41,878; S. Davis, $43,261. Noted Aug. 19.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contracts improving 48th and 49th Sts., 13th Ave. and Hudson St., to W. J. Fitzgerald, 547 West 45th St., $4,407, $5,617, $72,850 and $13,643 respectively; 189th St. and 9th Ave., to Downey Asphalt Co., 177th St. and Westchester Creek, $10,501 and $17,667 respectively; 2nd Ave., to Burnside Contg. Co., 270 Burnside Ave., $28,790; 153rd St., to C. Helbock Co., 633 Wales Ave., $13,045; repairing sewer in 23rd St., to P. J. Kearney Contg. Co., 2306 Creston Ave., $1,500. Noted Aug. 19.

N. Y., New York—G. A. Whalen, comr. plant and structures, Municipal Bldg., received bids Aug. 24 rebuilding approach and pavement on Manhattan side of Queensboro Bridge, from Astoria Contg. Co., $53,704; Burnside Contg. Co., 270 Burnside Ave., $58,087; W. J. Fitzgerald, 547 West 45th St., $58,377.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received only bid Aug. 31 repaving Arthur Kill Rd., concrete, from J. Johnson Son, $214,487. Noted Aug. 26.

★**Maryland**—State Rds. Comn., 601 Garrett Bldg., Baltimore, let contracts building ½ mi. sheet asphalt on concrete base on State Highway through Mt. Rainer, Prince Georges Co., Contr. P-21, to Crawford Paving Co., Washington, D. C., $19,362; 2.14 mi. concrete on Mountain Rd. from end of concrete section to Jacobsville, Anne Arundel Co. Contr. No. AA-19, to Christhilf & Ensey, Munsey Bldg., Baltimore, $75,008. Noted Sept. 2.

★**Ohio**—State Highway Dept., Columbus, let contract building roads in following counties:

Ashtabula Co., Sects. "C" and "D" Cleveland-Meadville Rd., 6.7 mi., widening pavement and resurfacing with macadam, to Seiple & Wolf Constr. Co., Youngstown, $166,987.

Belmont Co., Sect. "M" Bellaire-Barnesville Rd., 2.999 mi., grading and building drainage structures, L. B. Wilson, Newark, $50,502.

Crawford Co., Sect. "A" Shelby-Galion Rd., 2.424 mi., grading, constructing bridges and culverts and paving with bituminous macadam, J. C. McCann, Columbus, $87,621.

Geauga Co., Sect. "G" Cleveland-Meadville Rd., building bridge, George A. Stein, Niles, $7,275.

Jackson Co., Sect. "P" Chillicothe-Jackson Rd., grading, constructing bridge and culverts and paving with bituminous macadam, Neff & Rader, Circleville, $62,161.

Sect. "K" Chillicothe-Jackson Rd., 2.332 mi., grading, constructing bridges and culverts and paving with bituminous macadam, Neff & Rader, Circleville, $109,275.

Lorain Co., Sect. "T" Oberlin-Elyria Rd., 1.69 mi., grading, repairing bridges and culverts and paving with brick, A. J. Baltes, Norwalk, $25,565.

Mahoning Co., Sect. "N-2" North Lima-East Palestinerd, 0.65 mi., grading, constructing bridges and culverts and paving with brick, G. A. Gialdini & Son, Girard, $26,774.

Paulding Co., Sect. "A-2" Payne-Hicksville Rd., 2.019 mi., grading, constructing bridges and culverts and paving with Kentucky rock asphalt, T. B. Putnam, Van Wert, $76,772.

Sect. "G" Pauling-Woodburn Rd., 2.023 mi., grading, constructing bridges and culverts and paving with Kentucky rock asphalt, T. B. Putnam, Van Wert, $76,927.

Scioto Co., Sect. "R-1" Ohio River Rd., 3.692 mi., grading, constructing bridges and culverts and paving with monolithic brick, Harper & Ruhl Co., Portsmouth, $203,510.

Van Wert Co., Sect. "A" Van Wert-Ft. Wayne Rd., 5.826 mi., grading, constructing bridges and culverts and paving with

reets and Roads (Continued)

ntucky rock asphalt, Putnam & Shingle-cker, Van Wert, $240,851.

shtabula Co., Sect "E" Jefferson-An-ver Rd., 1.22 mi., resurfacing old con-te road with brick surface, C. G. Fuller, nneaut, $35,054.

Cuyahoga Co., Sects. "C-1" and "C-2" eveland-Elyria Rd., 8.021 mi., widening avement by addition of 5 ft. of macadam d resurfacing dirt road, Ohio Contg. Co., lyria, $60,180. Noted Sept. 9.

★**O., Shaker Heights**—Village let con-act to Cleveland Trinidad Paving Co., he Arcade, Cleveland, grading, draining, rbing and paving with asphalt, Strath-con Rd. from Scotsdale to Kenyon Rds., 34,134; Lindholm Rd. from Scotsdale to an Ness Rds., $28,624; Strandhill Rd. from Scotsdale to Sharington Rds., $33,-715; Rollston Rd. from Scotsdale Rd. to an Ness Blvd., $26,585; Engleside Rd. from Scotsdale to Kinsman Rds., $32,016; Sharington Rd. from Scotsdale to Palmer-ton Rds., $19,402. Noted Sept. 9.

★**O., South Euclid**—Village let contracts building 2½ in. stone sidewalks, on Stilmore, Wyncote, Harwood and Hinsdale Rds., Marimar Blvd. and Verona Ave., involving 42,000 cu.yd. earth excav., to Cleveland Stone Co., 1836 Euclid Ave., $54,510; grad-ing above streets, to Ward Bros., 8912 Hough Ave. and T. Vaughn, c/o F. A. Pease Eng. Co., Marshall Bldg., $22,350 and $18,390 respectively. Noted Sept 9.

★**Michigan**—State Highway Dept., Lans-ing, let contract grading, draining and sur-facing 8.046 mi. Assessment Dist. Rd. 205, 16 ft. wide, St. Clair and Macomb Counties, to J. A. McKay & Son, Detroit, $119,488. Noted Aug. 26.

★**Minn., Aitkin**—Aitkin Co. let contract grading and graveling 10 mi. Federal Aid Project 86, State Rd. 3, involving 6 acres clearing, 8 acre grubbing, 578 cu.yd. excav., 96,477 cu.yd. overhaul, etc., to B. Olson, Aitkin. About $106,000. Noted Aug. 12.

★**South Dakota**—State Highway Dept., Pierre, let contract grading and draining 2 mi. Chamberlain-Presho Rd., Project 49, Lyman and Brule Counties, also 4 mi. Presho-Winner Rd., Project 27, Lyman and Tripp Counties, to R. P. England, Murdo, $32,903 and $39,374 respectively.

★**Montana** — State Highway Dept., Hel-ena, let contract building 6.35 mi. Klein-Billings Rd., 24 ft. wide, Federal Aid Proj-ect 108, Musselshell Co., involving 51,477 cu.yd. excav., 21,927 sta. yd. overhaul, 4 acres clearing, 732 lin.ft. 18-30 in. pipe culvert, 71 cu.yd. masonry, 1,648 lin.ft. piling, 348 cu.yd. riprap, 205 cu.yd. retain-ing wall, to Treasure State Constr. Co., Roundup, $47,122.

Missouri—State Highway Dept., Harri-sonville, received bids Sept. 1, building 19 mi. Sect. A, Harrisonville-Belton Rd., 24 ft. wide, Federal Aid Project 20, Cass Co., in-volving (1) 66,464 cu.yd. earth excav., (2) 8,127 cu.yd. rock excav., (3) 1,880 cu.yd. borrow, (4) 539.6 cu.yd. Class "B" concrete, (5) 27.5 cu.yd. Class "C" concrete masonry, (6) 41,487 lb. reinforcing steel for con-crete masonry, from Gidinsky Constr. Co., Kansas City, Mo., (1) $0.71 per cu.yd., (2) $2.25, (3) $0.70, (4) $30, (5) $25, (6) $0.09, total cost, $90,486; Humphrey Constr. Co., Versailles, (1) $0.75, (2) $2.25, (3) $0.70, (4) $30, (5) $25, (6) $0.09, total cost, $92,812. Noted Aug. 26.

★**Missouri**—State Highway Dept., Jeffer-son City, let contract to P. P. Young, Savannah Rd., R. F. D. 6, St. Joseph, build-ing 0.52 mi. St. Joseph-Savannah Rd., 24 ft. wide, Federal Aid Project 123, Andrew Co., involving 404 cu.yd. earth excav., cost $0.80 per cu.yd., 1,046 cu.yd. borrow, $0.80, 5,424 sq.yd. bituminous macadam surface course plus 12,204 gal. bitumen for bituminous surface course, $1.58, 10.7 cu.yd. Class "B" concrete masonry, $28, 560 lb. reinforce-ment for concrete masonry, $0.10, total cost, $10,086; to D. Parnell, Branson, 4.8 mi. Boston Roadway, 24 ft. wide, State Aid Project S 20.3, Taney Co., 9,407 cu.yd. earth and 320 cu.yd. rock excav., cost $0.71 and $3, respectively, 11,600 sq.yd. gravel surfacing, $0.27, 173 cu.yd. dry rubble masonry, $2, two 15 in. and one 18 in. vitr. pipe culverts, $40 and $50 respectively, total cost, $12,577. Noted July 1

★**Missouri** — State Highway Dept., St. Joseph, let contract building .376 mi. Fred-erick Ave. Rd., 29 ft. wide, Federal Aid Project 94, Buchanan Co., to Land Constr. Co., Ballinger Bldg., $30,996. Noted Sept. 9.

★**Tex., Amarillo**—Potter Co. let contracts improving 14.7 mi. Highway 5, Colorado-Gulf Rd., 18 ft. wide, (a) grading road, involving 61,371 cu.yd. borrow, (b) build-ing rein.-con. bridge and culverts, also steel bridge, to H. F. Keller, Amarillo, (a) $22,-852; Austin Bros. Bridge Co., 1815 Coombs St., Dallas, (b) $19,310; both include 10 per cent for engineering and contingencies. Noted Sept. 9.

★**Tex., Canyon**—Randall Co., let contract grading and draining 17.12 mi. Highway 33 from here to Deaf Smith Co., 24 ft. wide, to McKnight & Howell, Amarillo, $27,874; including 10 per cent for engineer-ing and contingencies. Noted Sept. 9.

★**Tex., Decatur**—Wise Co. let contract surfacing, etc. 41.57 mi. Highway 2, Meri-dian Highway, 16 ft. wide, to R. E. Wild Constr. Co., c/o W. D. Paschal, county judge, Decatur, $101,363; including 10% for engineering and contingencies. Work involves 2,000 cu.yd. earth stripping, 22,372 cu.yd. crushed stone (to be furnished by county) and 4,000 cu.yd. gravel.

★**Tex., San Antonio**—Bexar Co. let con-tract surfacing, scarifying and excavating Burleson, Camo, Cherry, Courtland, Dwyer, French, Huisache, Santa Rosa and Travis Sts., involving 74,931 sq.yd. bituminous macadam, to Southwest Bitulithic Co., 711 Gunter Bldg. About $285,000.

★**Colorado**—State Highway Dept., Den-ver, let contract paving 1½ mi. Denver-Boulder Highway, 18 ft. wide, Boulder Co., concrete, to C. Madsen, Denver. About $58,000.

★**New Mexico** — State Highway Dept., Capitol Bldg., Santa Fe, let contract grad-ing, draining and surfacing 12 mi. Federal Aid Project 34-B, between Chamita and Tierra Amarilla, Rio Arriba Co., to A. T. Young, Denver, $95,992. Noted July 22.

★**Wash., Hoquiam**—City let contract pav-ing Lincoln St., et al., to Grays Harbor Constr. Co., Aberdeen. About $120,000.

★**Wash., Seattle**—City let contract pav-ing West 56th St., et al., involving 36,225 sq.yd. 6 in concrete and 36,225 cu.yd. excav., to Jahn & Bressi, New York Bldg., $113,103; 17th Ave., N., et al., 13,900 sq.yd. 7 in. and 20,500 sq.yd. 6 in. 1 course con-crete and 10,300 cu.yd. earth excav., to S. A. Moceri, Alaska Bldg., $116,003.

Wash., Seattle—City received bids Aug. 27 paving, etc., (1) 24th Ave., N., et al., involving 3,525 lin.ft. armored concrete curb, type "A," and 8,675 sq.yd. 7 in. con-crete, (2) building sidewalks, mains, et al., on 15th Ave., N.E., et al., 11,150 lin.ft. con-crete curb, type "A," 8,758 sq.yd. concrete walks and 800 cu.yd. earth work, from R. G. Stevenson, 1327 Ewing St., (1) $38,790; F. N. Badolato, Builders' Exch., (1) $39,-180, (2) $34,161, (alternate) $34,205; Olympic Constr. Co., Green Bldg., (1) $39,-252, (2) $34,282, (alternate) $34,632; Fiorito Bros., 6022 2d St., N.W., (1) $33,-783, (alternate) $34,002.

Wash., Seattle—City received bids paving (1) West 56th St. et al, involving 36,225 cu.yd. sub-grading and 36,225 sq.yd. 6 in. concrete paving, (2) 17th Ave. N. W., et al, 10,300 cu.yd. sub-grading, 13,900 sq.yd. 7 in. and 20,500 sq.yd. 6 in. concrete, (a) concrete, (b) clay, from Jahn & Bressi, New York Bldg., (1a) $113,102, (1b) $112,-102, (2a) $117,673, (2b) $117,673; Fiorito Bros., 6022 2nd St. N. W., (1a) $114,339, (1b) $114,339, (2a) $118,152, (2b) $118,-718; S. A. Moceri, Alaska Bldg., (1a) $115,788, (1b) $115,788, (2a) $115,465, (2b) $111,003.

★**Que., Montreal**—Administrative Comn. let contracts paving Messier Ave. to Sicily Asphaltum Paving Co., 60 St. Viteur St., E., $16,396; sidewalks on Monkland Ave., Marquette and Old Orchard Sts., to Duran-ceau & Duranceau, 113 Hamilton St., $5,-483; Fabre St., to A. T. A. Chagnon & Co., Montreal, $6,850. Noted Aug. 19.

★**Ont., York** — Township let contract building granolithic walks on Blandford St. and Weston Rd. to Grant Contg. Co., 50 Front St., E., Toronto, $5,191; Caledonia and Hanley Aves., Florence Crescent and Spadina Rd. to J. Harrop, 335 Brock Ave., Toronto, $13,367; Dufferin St., to A. John-son, 112 Ivy Ave., Toronto, $2,944; Han-son Rd., to Scott, Maddock & Mitchell, 48 Alexander St., $4,511.

Railways

PROPOSED WORK

Vermont—Hughes Granite Co., care of Walker & Walker, archts., 101 State So., Montpelier, plans to construct 6 mi. electric freight railroad from Calais to East Mont-pelier.

BIDS DESIRED

Ontario—Until Oct. 1, by Grand Trunk Ry., McGill St., Montreal, Que., building additional sidings in yards at Thorold. C. Forrester, York St., London, supt. Middle Div. F. L. C. Bond, McGill St., Montreal, ch. engr.

Excavation and Dredging

PROPOSED WORK

Ia., Algona—Drainage—E. H. Beardsley, aud. Kossuth Co., soon receives bids build-ing ditch to drain about 98,000 acres. Cost to exceed $25,000. G. D. Hart, Algona, engr.

Ia., Harlan—Drainage—Shelby Co. re-jected bids received Aug. 30, building Nish-nabotna River Drain 10, involving 1,108,-564 cu.yd. excav. Noted Aug. 26.

Minn., Albert Lea—Ditch—Freeborn Co. rejected bids Aug. 18, building Co. Ditch 34, involving 70,004 ft. 6-42 in. tile, 48 catch basins, 115 junction laterals, etc. J. H. Severson, Albert Lea, engr. Noted Aug. 5.

Tex., Paris — Levee — Lamar Co. Levee Impvt. Dist. 1 had plans prepared for 13 mi. levee, 18 ft. high, to reclaim 8,000 acres fertile land. Bonds for $354,000 voted for project. A. A. Stiles, state recl. engr.

Can., Port Frank—Canal—Great Lakes and Atlantic Canal and Power Co. Ltd., c/o N. M. Cantin, pres., St. Joseph, having sur-veys made for 13 mi. canal, 400 ft. wide, 35 ft. deep, from here to Port Talbot. About $50,000,000.

BIDS DESIRED

Tenn., Covington—Drainage—Until Sept. 29, by Bd. Dir. Middle Beaver Creek Drain-age Dist. 2, Tipton Co., clearing and clean-ing 163 acres right-of-way for main canal and laterals, involving 353,375 cu.yd. excav. W. H. Green, engr.

Ill., Harvel—Excavation—Until Oct. 1, at Town Hall, cleaning out surface ditches in Bug River Special D. D., Christian and Montgomery Counties, involving 55,605 lin. ft. ditches involving 11,868 cu.yd. earth excav. J. W. Dappert, Taylorville, engr.

Wis., Burlington — Ditches — Until Sept. 24, by Comrs. Hoosier Creek D. D., at office of G. W. Waller, atty., for 12,700 lin.ft. open ditches, involving 8,000 cu.yd. excav.

Ia., Jefferson—Drainage—Until Sept. 21, by Bd. Supervs. Greene Co., furnishing labor and material building Drain 134, in-volving 13,930 ft. 6-22 in. tile, etc.; Drain 138, 7,700 ft. 10-28 in. tile; Drain 147, 76,180 ft. 6-30 in. tile, etc.; Drain 155, 13,420 ft. 6-20 in. tile, etc. G. A. Coburn, aud., S. J. Melson, Jefferson engr.

Ia., Mason City—Drainage—Until Oct. 1, by P. Weigand, aud. Cerro Gordo Co. building Sects. 3 A, 3 C and 3 D. Laterals 7, 8, 10, 11, 12, 15 and 16, Joint D. D. 1, Cerro Gordo, Hancock, and Franklin Coun-ties. Sect. 3 A, involves 71,400 ft. 6-18 in. tile, Sect. 3 C, 14,850 ft. 7-22 in. tile, Sect. 3 D, 36,250 ft. 6-32 in. tile, Sect. 6, 7,200 ft. 6-16 in. tile and Sect. 8, 1,200 ft. 6-7 in. tile.

Ia., Red Oak Ditch—Until Sept. 21, by Bd. Supervs. Montgomery Co., building 5.5 mi. open ditch in D. D. 5, involving 185,000 cu.yd. earth excav. P. N. Ostrom, aud.

Ia., Spirit Lake—Drainage—Until Sept. 23, by Comrs. Dickinson and Emmett Counties, furnishing labor and material building Joint D. D. 3, involving 25,617 ft. 6-42 in. tile. R. A. Furman, Spirit Lake, engr.

Ia., Webster City—Drainage—Until Sept. 21, by H. Baxter, aud. Hamilton Co., build-ing Matilda Weimer D.D. 241, involving 73,790 ft. 6-32 in. tile; Lydia Anderson D. D. 242, 23,350 ft. 6-32 in. tile; Sven Erick-son D. D. 240, 21,041 ft. 6-18 in. tile. About $40,000.

Mo., St. Joseph—Ditches—Until Sept. 22, by Bd. Superv. of Platte River D. D. 1, Buchanan Co., building Platte River Ditch, 10.68 mi. long, 18 x 22 ft. bottom, involv-ing 1,022,000 cu.yd. excav.; One Hundred Two River Ditch, 5.48 mi. long, 16 ft. bottom, 397,000 cu.yd. excav.; Third East Lateral, .95 mi. long, 16 ft. bottom, 75,000 cu.yd. excav. W. B. Hazen, 53 Commercial Bldg., engr. Noted March 18.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Gloucester**—Dredging—Common-wealth of Massachusetts, Comn. Water-

Excavation and Dredging (Continued)

ways & Pub. Lands, State House, Boston, let contract dredging basins in Lobster Cove, to Bay State Dredging Contg. Co., 62 Condor St., East Boston. About $250,000.

Mass., Winthrop (Boston P. O.)—Dredging—Commonwealth of Massachusetts, Div. Waterways & Pub. Lands, State House, Boston, let contract dredging 34,000 cu.yd. in Winthrop Harbor, to Bay State Dredging & Contg. Co., 62 Condor St., East Boston.

★**Minn., Mankato**—Ditch—Blue Earth Co. let contract building Co. Ditch 59, involving 128,805 lin.ft. 8-32 in. tile, concrete headwall, etc., to North Star Concrete Co., Mankato, $63,900.

★**Minn., St. Peter**—Ditch—Nicollet Co. and Sibley Co. (Henderson) let contract building Ditch 6, involving 31,310 ft. 7-30 in. tile, to R. H. Allison, Mankato, $15,350; furnishing tile and other necessary material, to New Ulm Brick & Tile Co., New Ulm. Total cost to exceed $30,000. Noted Aug. 12.

Industrial Works

PROPOSED WORK

Me., Eastport—Sea Coast Canning Co. plans to reconstruct Bldgs. 4 and 5, which were recently destroyed by fire. About $300,000. Architect not selected.

Mass., Boston—Densmore & LeClear, archts., 88 Broad St., soon receive bids building 8 story, 100 x 200 ft., granite limestone and terra cotta addition to plant, on Berkeley and Stuart Sts., for Salada Tea Co., 155 Berkeley St. Noted Apr. 1.

Mass., Cambridge—J. R. Worcester & Co., archts. and engrs., 79 Milk St., Boston, soon let contract building 1 story, 70 x 200 x 400 ft., brick and steel addition to plant, concrete foundation, on 1st St., here, for Ginn & Co., 15 Ashburton Pl., Boston. About $250,000.

R. I., Providence—R. T. Slade, 547 Elmwood Ave., plans to build 1 story, brick and rein.-con. addition to garage. About $50,000. Private plans.

R. I., Providence—Smith Realty Co. plans to build brick and steel garage, 50 cars capacity, on Chapel St. About $50,000. Architect not selected.

R. I., Woonsocket—Amer. Wringer Co., 91 Social St., soon lets contract constructing 1 story, 80 x 110 ft. dry kiln and 2 story mechanical roll building, brick and steel, rein.-con. flooring, concrete foundations, on Pond and Clinton Sts. Cooley & Marvin Co., 15 Ashburton Pl., Boston, archt.

Conn., Waterbury—Lux Clock Mfg. Co., 105 Sperry St., soon lets contract building 4 story, 25 x 105 ft. brick, and timber factory, concrete foundation. About $50,000. Noted Aug. 26.

N. Y., Brooklyn—J. Oehrig, 7 McKibben St., having sketches made by Kunzl & Waillant, archts. and engrs., 394 Graham Ave., for 4 story, 100 x 100 ft. brick, steel and concrete factory, rein.-con. flooring, concrete foundation. About $125,000.

N. Y., Yonkers—Hudson Tire & Rubber Co. having plans prepared by Osborn Eng. Co., archts. and engrs., 2848 Prospect Ave., Cleveland, O., for 3 story, rein.-con., brick and steel factory and power plant, rein.-con. flooring, concrete and brick foundation, here. About $300,000.

N. J., Bayonne—Tidewater Oil Co., Constable Hook, plans to build 36 x 147 x 150 ft. boiler and pump house, brick. About $86,000.

Pa., Frankford—Fidelity Machine Co., c/o G. B. Roth, archt., 1629 Chestnut St., receives bids about Jan. 1, building 2 story, 100 x 200 ft., brick and concrete factory.

Md., Baltimore—P. Kell Co. Inc., Holliday and Center Sts., having plans prepared for 1 and 2 story, 70 x 165 ft. sheet metal plant, rein.-con. and steel, concrete foundation. About $100,000. Private plans.

Md., Baltimore—Kennedy Corp., Charles and Wells Sts., plans to build extensions to plant. About $100,000. J. P. Kennedy, Fidelity Bldg., pres.

Md., Canton (Baltimore P.O.)—Standard Oil Co., Pratt and South Sts., Baltimore, plan to build oil refinery, here. About $7,000,000. E. A. Holbein, Supt.

Va., Petersburg—Virginia Normal & Industrial Institute having plans prepared by J. Posey, engr., Fidelity Bldg., Baltimore, for heating plant, consisting of boilers, smokestack, stokers, etc. About $100,000.

Tenn., Memphis—Clover Farm Dairy Co., 789 Union Ave., having plans prepared by W. T. Tinn, archt., Phila., for rein.-con. dairy and ice cream plant, on Somerville St. About $250,000.

Tenn., Nashville—U. S. Biscuit Co., Memphis, plans to build plant, here. About $300,000.

O., Cleveland—Clay Engine Mfg. Co., 864 East 72nd St., plans to build 1 story, brick and steel factory, brick foundation. About $50,000. H. H. Newman, mgr. Architect not selected.

O., Cleveland—Cleveland Ry., Leader-News Bldg., plans to build 1 story, rein.-con., brick and steel car barns, rein.-con. flooring, brick and concrete foundations, on East 34th St. and Bway. About $300,000. G. Radcliffe, mgr. D. W. Morrow, 4500 Euclid Ave., archt.

O., Cleveland—Commercial Bookbindery Co., 2331 West 110th St., plans to build 3 story, rein.-con., brick and steel factory, rein.-con. flooring, brick and concrete foundation. About $100,000. A. E. Fowler, secy. Architect not selected.

O., Cleveland—Natl. Malleable Castings Co., Woodhill Rd., plans to build 1 story, 60 x 200 ft., brick and steel machine shop, brick foundation, on Woodhill Rd. and Quincy Ave. About $100,000. H. F. Pope, pres. J. Moffett, c/o Natl. Malleable Castings Co., archt. and engr.

O., Cleveland—Spohn Heating & Ventilating Co., 1775 East 45th St., plans to build 2 story factory and warehouse, brick and steel, brick foundation, on East 46th St. near Hough Ave. About $50,000. G. Nachman, pres. Architect and engineer not selected.

O., Copley—Wellman-Seaver-Morgan Co., 7000 Central Ave., Cleveland, having plans prepared for 1 story, 100 x 300 ft., brick and steel, tractor plant, brick foundation. About $200,000. G. S. Burrows, c/o owner, engr.

O., Dayton—Miller Airplane Co. plans to build 2 story factory, on Brown St. About $100,000.

O., Marietta—Safe Cabinet Co. having sketches made for 3 story, brick and concrete addition to factory. About $100,000.

O., South Akron (Akron P.O.)—Wellman-Seaver-Morgan Co., reserved 120 acre site along tracks of Akron, Canton & Youngstown Ry., near Copley Center and Fairlawn Heights, and plans to construct a chain of factory buildings.

O., Toledo—Acklin Stamping Co. having plans prepared by Langdon & Hohly, archts. for sheet metal plant, on Nebraska Ave. east of Toledo University Farm. Work includes warehouse with capacity for 50,000 tons of steel, punch press departments, annealing furnaces, nickel-plating and galvanizing plants, electric welding and tool departments. J. M. Acklin, vice-pres.

Ia., Cedar Rapids—First Ave. Investment Co. plans to build 2 story, 60 x 140 ft., concrete, brick and steel garage, concrete foundation. About $120,000. Private plans.

Minn., Redwood Falls—R. Stensvad plans to build 1 story, 120 x 120 ft. brick, steel and tile garage. About $50,000.

S. D., Aberdeen—See "Buildings."

Mo., North Kansas City—C. E. Haber, engr. and archt., Xenia, O., soon lets contract building 1 story, 80 x 363 ft., rein.-con. and brick factory, rein.-con. flooring, here, for Hooven & Allison Co.

Tex., Ballinger—C. S. Guin plans to build ice factory. About $50,000.

Tex., Ft. Worth—Texas Cotton Mills Co. plans to build mill, to have 15,000 spindles and 500 looms. About $1,000,000.

Col., Denver—Eaton Metal Products Co., 1843 Wazee St., having plans prepared for 1 story plant, concrete and steel, on York St. near Union Pacific R.R. shops. About $175,000. Architect's name withheld.

Col., Denver—Federal Glass Co., 1717 Champa St., having plans prepared for plant, to include office building, circular glass house, 100 ft. diam., gas plant and factory with 10,000 sq.ft. floor space. About $250,000. J. W. Busard, c/o Sylvester & Co., 1717 Champa St., engr. Noted Aug. 26.

Col., Denver—Great Valleys Sugar Corp., 800 Central Savings Bank Bldg., having preliminary plans prepared for 3 brick and steel factories, 1 in Boulder County, and 2 in Weld County, each to have 600 ton capacity. About $3,000,000. A. F. Lyster, 800 Central Savings Bank Bldg., engr.

Col., Fleming—City plans to build power plant for water and light service. About $50,000.

Ont., London—G. Philp, Hayman Co. is interested in company which plans to build malleable iron casting factory. About $100,000.

Ont., Windsor—Colthurst, Trace & Nichols, archts., 16 Sandwich St. W., receives bids about Jan. 1, building 2 story, 120 x 400 ft. rein.-con. cold storage plant. About $600,000. Owners name withheld.

B. C., Kelowna—Kelowna Storage Co. Ltd. having plans prepared by Twizell & Birds, archts., 837 Hastings St. W., Vancouver, for 3 story, 85 x 150 ft. brick and tile plant.

BIDS DESIRED

N. Y., Buffalo—Drumstra Ice Cream Co., 958 Fillmore Ave., receiving bids altering and building additions to 2 story, 50 x [illegible] ft., brick and tile factory, at 1615 Bway. About $60,000.

O., Cleveland—Until Sept. 20, by Cleveland Folding Bed Co., 2554 East 55th St. building 2 story, 70 x 70 ft., brick and steel addition to factory, brick foundation, at 3740 Central Ave. About $50,000. M. Altschuld, East 51st St. and Woodland Ave., archt.

Ind., Indianapolis—J. D. Hunt Mfg. Co., 939-47 Massachusetts Ave., receiving bids constructing 2 story, 100 x 150 ft., warehouse and office building, rein.-con. and brick, on North Capitol St. About $100,000. Rubush & Hunter, 430 Amer. Central Life Bldg., archts.

Mich., Delray (Detroit P. O.)—Inland Delray Salt Co., receiving bids constructing 3 story, brick and mill construction factory, brick foundation. About $60,000. Stahl & Kinsey, 435 Woodward Ave., Detroit, archts.

Mich., Detroit—Until Sept. 20, by H. H. Lane, engr., Dime Bank Bldg., constructing 3 story, 128 x 150 ft. warehouse, brick and mill construction, brick foundation, on Dequindre St., for Western Electric Co. c/o F. J. Whitney, Kirby Ave. and Dequindre St. About $85,000.

Mich., Monroe—Until Sept. 20, by R. M. Dunbar, archt., Monroe, building 1 story, 90 x 210 ft. foundry, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East 1st St., for Monroe Auto Equipment Co. About $100,000. Noted Sept. 2.

Ill., Chicago—Z. L. Davis, archt., 64 East Van Buren St., receiving bids building 1 story, 125 x 200 ft., brick and timber garage, rein.-con. flooring, concrete foundation, at 1447 West 63rd St., for McKeown Transportation Co. About $90,000.

Minn., Hancock—Guiterman Bros., c/o W. C. Kauth, chn. Hancock Bldg. Comm., receiving bids building 85 x 120 ft. brick veneer or stucco factory. About $75,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Howland**—Howland Pulp & Paper Co., 301 Congress St., let contract constructing 1 story, 75 x 103 ft. addition to sulphate pulp mill and 38 x 72 ft. addition to paper machine building, brick and steel, rein.-con. flooring, concrete foundation, also 590 ft. rein.-con. dam, to Green & Wilson, Waterville. About $120,000.

★**N. H., Groveton**—Groveton Paper Co. Inc., let contract building 2 story, 55 x 200 ft. brick and steel addition to plant, concrete foundation, to Swan & Son, St. Johnsbury, Vt. About $100,000.

★**Vt., Northfield**—H. Pelaggi & Co. will build 1 story, 60 x 425 ft. frame addition to plant, rock foundation. About $50,000. Work will be done by day labor.

★**Mass., Lawrence**—F. G. Murch and G. H. Woodman, 279 Essex St., let contract building 4 story, 70 x 100 ft. mill construction factory, concrete foundation, on Essex and Winter Sts., to E. A. Peabody & Son, 309 Bay State Bldg. About $125,000.

★**Mass., Russell**—Chapin & Gould Paper Co., 317 Main St., Springfield, let contract building 4 story, rein.-con. factory, rein.-con. flooring, concrete foundation, here, to F. T. Ley & Co. Inc., 499 Main St., Springfield. About $100,000.

★**R. I., Providence**—Hassenfield Bros., 212 North Main St., let contract building 3 story, 45 x 110 ft., mill construction warehouse, concrete foundation, on North Main and Bowen Sts., to Mahoney & Tucker, 423 Grosvenor Bldg. About $60,000.

Industrial Works (Continued)

★**R. I., Providence**—Waldorf Lunch Co., Byron St., let contract building 2 story, brick and steel addition to bakery, rein.-con. flooring, concrete foundation, to J. Meltzer & Co., 101 Tremont St., Boston. About $50,000. Noted Aug. 19.

★**R. I., Woonsocket**—Alsace Worsted Co. let contract building 2 story, 66 x 180 ft. mill construction factory addition, concrete foundation, on East School St., to W. Aubin, Diamond Hill Rd. About $75,000.

★**Conn., Greenville** (Norwich P. O.)—Atlantic Carton Corp., South Golden St., let contract building 2 story, 50 x 200 ft., brick and steel addition to factory, concrete foundation, to Peck McWilliams Co., 47 West Main St., Norwich. About $65,000.

★**Conn., New Haven**—F. Teitelman, 214 State St., let contract building 5 story, 56 x 70 ft., mill construction factory, concrete foundation, to J. Alpert, 192 Winthrop Ave. About $80,000.

★**Conn., Norwalk**—City let contract building 2 story, 20 x 40 ft., brick and rein.-con. addition to electrical plant, rein.-con. flooring, concrete foundation, on State St., to G. Smith, 1 Trinity Pl., South Norwalk. About $50,000. Noted Sept. 2.

★**N. Y., Brooklyn**—Charshad Realty Co., 1199 Eastern Parkway, will build 1 story, 120 x 200 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Empire Blvd. About $50,000. Work will be done by day labor.

★**N. Y., Brooklyn**—I. Gootzeit, 3031 Steuben St., Middle Village, L. I., will build 1 story, 100 x 150 ft., brick and teel garage, rein.-con. flooring, concrete foundation, on Nassau Ave., here. About $50,000. Work will be done by day labor.

★**N. Y., Jamaica**—E. Langer Printing Co., 470 West Bway., New York City, let contract building 3 story, 100 x 300 ft. rein.-con. and steel printing plant, rein.-con. flooring, concrete foundation, on Hamilton Ave., here, to Rosenthal Eng. Constr. Co., 225 Jackson Ave., Brooklyn.

★**N. Y., New York**—Castle Realty Co., 451 West 30th St., will alter and build additions to 6 story, 85 x 100 ft., brick and steel factory, at 446 West 31st St. About $250,000. Work will be done by day labor.

★**N. Y., New York**—Five Sixty-Three West Fifty-Ninth St. Co. let contract altering 4 and 5 story, 100 x 125 ft. garage and service station, brick and steel, rein.-con. flooring, at 557 West 59th St., to A. List & Son, 70 East 45th St. About $75,000.

★**N. Y., New York**—H. Kline, 532 West 54th St., let contract building two 1 story, brick and steel garages, rein.-con. flooring, concrete foundation, to Standard Concrete Steel Co., 105 West 40th St. About $90,000. Noted June 3.

★**N. Y., New York**—New York Pie Baking Co., 82 Sullivan St., let contract altering 3 story, brick, steel and concrete bakery, to P. Roberts, 33 Sullivan St. About $150,000. Noted Jan. 22.

N. Y., New York—Transit Comn. received bids Sept. 7, building 2nd brick, concrete and steel addition to shops on Lenox Ave. and 148th St., from Bainbridge Constr. Co., 52 Vanderbilt Ave., $456,083; D. C. Serber, 1123 Bway., $491,812; Snare & Triest, 8 West 40th St., $494,721. Noted Aug. 26.

★**N. J., Bridgeton**—Illinois Glass Co. let contract constructing factory on North Laurel St., consisting of 3 story, 330 x 700 ft. main plant, 50 x 150 ft. producer building and 2 story, 50 x 100 ft. engine and boiler room, concrete and steel, to Keeley Bros. Contg. Co., 507 Federal St., Camden. About $3,000,000.

★**Pa., Bridgeville**—Natl. Lamp Co., Nela Park, East Cleveland, O., let contract building 3 story, 63 x 179 ft. factory and warehouse, brick and steel, brick foundation, here to Heller & Murray, Youngstown, O. About $100,000.

★**Pa., New Bethlehem**—Pine Run Coal Co. let contract constructing six 1 story, brick and steel buildings, brick foundations, to H. K. Ferguson Co., Vickers Bldg., Cleveland. About $200,000.

★**D. C., Washington**—N. Auth Provision Co. let contract building addition to packing plant, to R. P. Whitty Co., Union Trust Bldg. About $60,000.

★**Tenn., Knoxville** — Brookside Mills Co. let contract building 1 story, rein.-con. weave shed, to Alberthaw Constr. Co., 27 School St., Boston. About $300,000.

★**O., Canton**—United Eng. & Fdry. Co. let contract building 1 story, 136 x 240 ft., rein.-con. and steel factory, on Grace Ave. N. E., and 13th St. N. E., to R. G. Witter, 1539 Harvard Court, N. W. About $75,000; steel work, to Blaw-Knox Co., Freeport Rd., Hoboken, Pa.

★**O., Cleveland**—Orange Garage Co. let contract building 1 story, 65 x 130 ft., brick and steel garage, brick foundation, on Orange Ave., to Windsor Constr. Co., Swetland Bldg. About $50,000

★**O., Niles**—Natl Lamp Co., Nela Park, East Cleveland, let contract building 3 story, 50 x 150 ft., brick and steel factory and warehouse, brick foundation, here, to Heller & Murray, Youngstown. About $75,000

★**Ind., Terre Haute**—Hoosier Rolling Mills Co. will build 1 story, 100 x 600 ft., rein.-con., brick and steel factory, rein.-con. flooring. About $100,000. Work will be done by day labor.

★**Ill., Chicago**—Glabman Bros., c/o Dubin & Eisenberg, archts., 139 North Clark St., let masonry contract for 4 story, 48 x 100 ft., concrete and brick warehouse, concrete foundation, at 1304-6 Newberry Ave., to Kadeshewitz & Bechel, 1342 Independence St.; carpentry, to J. Laff, 3401 Douglas St. Total cost, $90,000.

★**Ill., Chicago**—Lawrence Ice Cream Co., West 21st St., let contract building 2 story, 219 x 250 ft., mill construction factory, concrete foundation, on 21st and Sangamon Sts., to E. F. Weigel, 1624 West 63rd St.

★**Kan., McPherson**—Goerz Flour Co. let contract building 7 story, 48 x 120 ft. mill and 2 story, 48 x 116 ft. warehouse, rein.-con. and brick, rein.-con. flooring, to Jones-Hettelsater Constr. Co., Mutual Bldg., Kansas City, Mo. About $600,000; cost plus percentage basis.

★**Col., La Salle**—Industrial Sugar Co., Barclay Blk., Denver, let contract constructing steel and concrete factory, to include main building, steffen house, boiler house, lime house and warehouse, to Baum & Baum, Salt Lake City. About $1,800,000.

★**Que., Montreal**—Knit to Fit Mfg. Co., 322 Papineau Ave., let contract building 4 story, 136 x 196 ft. brick and steel factory, concrete foundation, on Parthenais St., to Anglin-Norcross Co., 65 Victoria St. About $178,000.

★**Que., Montreal**—W. J. Westaway & Co., 211 McGill St., let contract building 2 story, 43 x 140 ft., 2 story, 24 x 54 ft. and 1 story, 24 x 50 ft., brick and steel factories, concrete foundations, on Parthenais St., to Anglin-Norcross, 65 Victoria St., $54,000, $16,300 and $5,800 respectively.

Buildings

PROPOSED WORK

Vt., Barre—Theatre—Eames & Gordan having plans prepared by Pember & Campagne, archts., 24 James St., Albany, N. Y., for 2 story, 40 x 115 ft. brick, steel and concrete, on Marie and Pearl Sts.

Mass., Dedham—Club—Dedham Country and Polo Club soon receives bids building 3 story, 40 x 100 ft., brick and frame, stone foundation. About $100,000. G. Lowell, 12 West St., Boston, archt. Noted Aug. 5.

Mass., Gardner — Housing — Central Oil & Gas Stove Co., School St., having plans prepared by P. Varney archt., 25 Exchange St., Lynn, for 2 story, brick and timber houses, concrete foundations, near plant. About $100,000.

Mass., Hamilton—Memorial—Town plans to construct community memorial building on Ashbury St. About $100,000. G. Lowell, 12 West St., Boston, archt.

Mass., Holyoke—Church—Perpetual Help Roman Catholic Society, 51 Fountain St., having plans prepared by L. J. Carone, archt., Nicolet, Que., Can., for 1 story, brick and steel, concrete and stone foundation. About $150,000. J. Marchand, pastor.

Mass., Jamaica Plain (Boston P. O.)—Theatre—H. Eilenberg, c/o W. Dyckeman, archt., 120 Tremont St., Boston, soon lets contract building 1 story, 85 x 120 ft., brick, rein.-con. flooring, concrete foundation, on Center St. About $125,000.

Mass., Leominster—Theatre—Leominster Theatre, c/o Funk & Wilcox, archts., 1148 Old South Bldg., Boston, had plans prepared for 1 story, 70 x 155 ft., brick, steel and rein.-con., rein.-con. flooring, concrete foundation, on Maple St. About $125,000.

Mass., Malden (Boston P. O.)—Store and Office—A. B. Morgan plans to build 2 story, 60 x 130 ft., brick, stone and concrete foundation. About $100,000. W. T. Littlefield, 9 Hamilton Pl., Boston, archt.

Mass., Westfield — Church — St. Joseph Polish Natl. Catholic Society, Main St., plans to build 1 story, brick, stone and steel, on Main and Clinton Sts. About $100,000. Architect not selected.

Mass., Westfield — Library — Bd. Selectmen, Broad St., plans to build brick, stone and steel. About $100,000 Architect not selected

Mass., Worcester — College—Holy Cross College, College St., plans to construct 5 additions, consisting of new chapel, new science hall, new refectory building, new dormitory and administration building, concrete, brick and steel, rein.-con. flooring, concrete foundations, on Campus. About $1,000,000 Architect not selected.

R. I., Edgewood (Providence P. O.) — Library—W. H. Hall Free Library, c/o Rhode Island Hospital Trust Co., 15 Westminster St., Providence, plans to build large library, here. About $400,000. Architect not selected.

R. I., Newport—School—City had plans prepared by T. S. Weaver, archt., 14 Cranston Ave., for Sheffield School, 2 story, brick and concrete, rein.-con. flooring, concrete foundation, on Bway. and Vernon St About $150,000.

Conn., Hartford—School—South School Dist. plans to build 2 story, brick and steel, on Charter Oak Ave. About $200,000. J. H. Taylor, 1 Main St., chn. Architect not selected

Conn., Norwich—Church—St. Mary Roman Catholic Society, 70 Central Ave., plans to build 1 story, 60 x 130 ft., stone and steel, stone foundation. About $100,000. O'Connell & Shaw, 18 Boylston St., Boston, archts.

N. Y., Hornell—High School—Bd. Educ. plans to build new high school. About $500,000. G. L. Elkin, 44 Pearl St., secy. Architect not selected.

N. Y., New York—Club—Army & Navy Club of New York, 18 Gramercy Park, plans to build brick, concrete and stone, concrete foundation. About $3,000,000. Address W. J. Nicholson. Architect not selected.

N. Y., New York—Museum—New York Zoological Society, 111 Bway., having plans prepared by H. D. Whitfield, archt. and engr., 597 5th Ave., for 1 story, 75 x 90 ft., brick and stone, brick foundation, at Bronx Zoological Park. About $150,000.

N. J., Atlantic City—Temple—Amer. Federation of Labor plans to build labor temple. About $175,000. S. A. Burke, Atlantic City, chn. of com. Architect not selected.

N. J., Jersey City—Theatre—Hespe Realty Co. plans to build moving picture theatre on Central Ave. About $150,000.

Pa., Avondale — High School — Consolidated Bd. Educ. of New Gordon and Loudin Grove Twps., in West Grove and Avondale Boros., Chester Co., having sketches made by Ritter & Shay, archts., North Amer. Bldg., Phila., for 2 story, brick, here. Cost to exceed $100,000.

Pa., Phila—Hospital—Roosevelt Hospital, 5th and Fairmount Sts., having sketches made by W. C. Furber, archt., 212 West Washington Sq., for 5 story, concrete and brick. Cost to exceed $100,000.

Pa., Phila. — Hotel — B. Franklin Hotel, c/o F. Webber, archt. Morris Bldg., receives bids latter part of November building 16 story, 194 x 230 ft., concrete, brick and steel, on 9th and Chestnut Sts.

Pa., Phila.—Office—Goodlow Corp., c/o D. H. Basset, archt., 1520 Locust St., having plans prepared for 3 story, 20 x 200 ft., brick, on 12th and Market Sts. About $100,000.

Md., Baltimore — Club — Maryland Club, Charles and Eager Sts., having plans prepared by J. Pennington, archt., 330 North Charles St., improving brick and stone building. About $100,000. F. Carey, chn. building com. Noted Aug. 26.

Md., Crisfield — Church—Asbury Methodist Episcopal Church, c/o G. E. Savage, archt., Witherspoon Bldg., Phila., had plans prepared for 1 story, 80 x 125 ft., stone. About $100,000.

Md., Cumberland — Club — Cumberland Lodge, B. P. O. E., c/o T. W. Biddle, Jr., archt., 120 Frederick St., having plans pre-

Buildings (Continued)

pared for 3 story, 43 x 100 ft., brick and stone, stone and concrete foundation, on Baltimore St. About $125,000.

D. C., Washington—Theatre—R. W. Geare, archt., Woodward Bldg., soon receive bids building brick, steel, concrete and tile, for Crandall Lincoln Theatre Corp., 9th and E Sts. About $350,000.

Fla., Bradentown—Hotel—Bradentown Apartment Co. had plans prepared by G. H. Ingram, archt., 1127 Guardian Bldg., Cleveland, O., for 3 story, 91 x 170 ft. brick and steel. About $200,000.

O., Canton—Store and Office—G. L. Heibner plans to build 8 story, 33 x 200 ft. brick, on Market Ave. N. and 6th St. About $200,000.

O., Canton—Theater and Office—P. J. Bernower, Navarre Rd. and Cleveland Ave. S. W., plans to build 4-8 story, 67 x 200 ft., rein.-con., brick and steel, on Market N. and 6th Sts. About $500,000.

O., Cleveland—Commercial—J. Fuller, Schofield Bldg., plans to build 197 x 212 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 40th St. and Windsor Ave. About $200,000. Architect's name withheld.

O., Cleveland—Commercial—W. R. Green, vice-pres. Guardian Savings & Trust Co., Euclid Ave., plans to build 3 story, brick and steel, brick foundation, on East 89th St. and Carnegie Ave. About $100,000. Architect not selected.

O., Cleveland—Commercial—Lillian Realty Co., c/o W. B. Cohen and A. Koblitz, The Arcade, plans to build 8 story, 40 x 120 ft., rein.-con., brick and steel, rein.-con. flooring, concrete and brick foundation, on East 17th St. north of Euclid Ave. About $350,000. Architect's name withheld.

O., Cleveland—Commercial—Skeel Bros. Co., 10014 Euclid Ave., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete and brick foundation, on East 74th St. and Euclid Ave. About $100,000. Private plans.

O., Cleveland—Commercial and Office—Belmore Co., c/o M. B. Sharfield, 206 Society for Savings Bldg., plans to build 20 story, 99 x 300 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Superior Ave. between East 6th and East 9th St. About $5,000,000. Architect not selected.

O., Clintonville—School—Bd. Educ. having sketches made by D. Reibel & Son, archts., New 1st Natl. Bank Bldg., Columbus, for 2 story, brick and stone. About $265,000.

O., Youngstown—Church—St. Paul's Reformed Church plans to build church, on Oak Hill Ave. About $100,000.

Ind., Dugger—School—C. Hale, trustee School Bd., Sulivan, soon receives bids building 2 story, 60 x 120 ft., brick and steel, here. About $100,000. J. W. Caddis, Vincennes, archt.

Ind., Ft. Wayne—High School—Bd. School Comrs. had plans prepared by Griffith & Goodrich, archts., 15 North Amer. Bldg., for 3 story, 211 x 230 ft., rein.-con., brick and steel. About $200,000.

Ind., Richmond—School—Bd. School Comrs. soon receive bids building 2 story, 202 x 368 ft., rein.-con., brick and steel. About $200,000. Perkins, Fellows & Hamilton, 814 Tower Court, Chicago, archts.

Mich., Detroit—Hospital—Pub. Health Dept., City Serv. Bldg., having plans prepared by A. Kahn, archt., Marquette Bldg., for 3 story hospital group, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, on Taylor Ave. About $3,000,000.

Mich., Redford—Church—First Baptist Church having plans prepared by Wells, Beckwith & Cole, archts., 624 McKerchy Bldg., Detroit, for 1 story, 50 x 90 ft., brick, steel and stone, rein.-con., tile and hardwood flooring, brick foundation. About $100,000.

Wis., Green Bay—Theatre and Office—J. R. Minahan, Minahan Bldg., plans to build 14 story, 75 x 160 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation. Architect and engineer not selected.

Wis., Milwaukee—Bank and Office—Kirchhoff & Rose, archts., Majestic Bldg., open bids about Sept. 20, building superstructure for 2 story, 40 x 90 ft., rein.-con. and brick, rein.-con. flooring, on Mitchell St., for Amer. Exch. Bank, 5th Ave. and Mitchell St. About $100,000. Noted April 29.

Wis., Milwaukee—Hotel—C. Barkhausen, archt., Iron Blk., soon lets contract building 4 story, 45 x 120 ft., rein.-con. and brick addition, rein.-con. flooring, concrete foundation, for Hotel Martin, 201 Wisconsin St. About $150,000.

Ia., Dundee—School—Bd. Educ. having plans prepared by Keffer & Jones, archts., 201 Hubbell Bldg., Des Moines, for 2 story, concrete, brick and steel, concrete foundation. About $100,000.

Ia., Flinchford—School—Bd. Educ. plans to build brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $110,000. Architect and engineer not selected.

Ia., Jamaica—School—Bd. Educ. having plans prepared by Keffer & Jones, archts., 201 Hubbell Bldg., Des Moines, for 2 story, concrete, brick and steel, concrete foundation. About $110,000.

Ia., Lytton—School—Bd. Educ. having plans prepared by Keffer & Jones, archts., 201 Hubbell Bldg., Des Moines, for 2 story, concrete, brick and steel, rock foundation. About $100,000. Noted June 17.

Ia., Yetter—School—Bd. Educ. having plans prepared by Keffer & Jones, archts., 201 Hubbell Bldg., Des Moines, for 2 story, concrete, brick and steel, concrete foundation. About $100,000. Noted June 17.

Kan., Kansas City—Station—Kansas City Terminal Ry., Union Sta., Kansas City, Mo., soon receives bids building 2 story, 38 x 141 ft., brick and terra cotta, here. About $150,000. Rose & Peterson, Parker Bldg., archts.

Kan., Liberal—Auditorium, etc.—City election Oct. 5, to vote on $150,000 bonds to construct auditorium and memorial building. Architect and engineer not selected.

Kan., Norton—Hotel—Norton Hotel Co. having plans prepared by Archer & Gloyd, archts., Reliance Bldg., Kansas City, Mo., for 2 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $150,000.

Kan., Liberal—Memorial—Seward Co. plans to construct memorial building. About $150,000. Architect and engineer not selected.

Kan., Wichita—Memorial—City election Nov. 2, to vote on $1,500,000 bonds to construct war memorial building. Architect and engineer not decided.

Kan., Wichita—Rescue Home—Salvation Army, 126 North Topeka St., plans to build home along Little River. About $200,000. G. M. Booth, in charge. Architect and engineer not selected.

S. D., Aberdeen—Exhibition Bldg.—Fair Assn. having plans prepared by Pearse, Robinson & Sprague, archts., 701 Youngerman Bldg., Des Moines, Ia., for 1 story, exhibition building and cattle barns. About $150,000.

N. D., Grand Forks—Exhibition—Grand Forks Fair Assn. having plans prepared by Pearse, Robinson & Sprague, archts., 701 Youngerman Bldg., Des Moines, Ia., for buildings on fair grounds. About $100,000.

Mo., Kansas City—Court House—Jackson Co. election Nov. 2 to vote on $5,000,000 bonds to build court house. P. J. Kelly, clk. A. L. Cooper, atty. for court. Architect not selected.

Mo., Springfield—Y. M. C. A. having plans prepared by F. H. Miller, archt., for 3 story, 60 x 110 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $100,000.

Tex., Paris—School—City issued $225,000 bonds to build 3 story school. Architect not selected. Noted May 6.

Okla., Talihina—Hospital—State Bd. Affairs, Oklahoma, plans to build 2 story hospital for tuberculosis, here. About $200,000. G. Smith, chn. Architect and engineer not decided.

Col., Denver—Schools—School Dist. plans election Oct. 21 to vote on $2,000,000 bonds to construct and improve various schools.

Wash., Seattle—Fire Station—City plans to build 2 story, mill construction, on 4th and Battery Sts. About $200,000. D. Huntington, city engr.

Sask., Biggar—Hospital—Hospital soon receives bids building hospital. About $100,000. J. M. Morrison, 324 Drinkle, Saskatoon, archts.

BIDS DESIRED

N. Y., Great Neck—Schools—Until Oct. 4, by Bd. Educ. Union Free Dist. 7 of N. Hempstead, at High School Bldg., for constructing school on Middle Neck and Arrandale Ave., also on 10th St. Nassau Rd. F. Dickerson, pres.; advertised in this issue.

N. Y., Port Chester—Theatre—Until Sept. 25, by W. H. McElfatrick, arch. and engr., 701 7th Ave., New York City, building brick, steel and stone, brick foundation, here, for Ponty & Weln, Port Chester. About $350,000.

Pa., New Castle—Bank—Until Sept. 18 by Mowbray & Uffinger, archts. and engrs., 56 Liberty St., New York City, building 1 story, 50 x 100 ft., brick and stone, brick foundation, for Lawrence Savings Bank & Trust Co., 223 East Washington St. About $150,000. Noted June 17.

Md., Baltimore—Theatre—Until Sept. 20 by Lachman & Murphy, archts. and engrs., Drexel Bldg., Phila., building 1 story, 75 x 145 ft., brick, steel and concrete, at 1317 North Pennsylvania Ave., here, for Douglas Amusement Co., c/o architects. Cost to exceed $100,000. Noted Sept. 2.

Md., Sparrows Point—Hospital—Until Sept. 22, by J. E. Sperry, archt., 409 Calvert Bldg., Baltimore, building 3 story, brick, stone, rein.-con. and terra cotta, concrete foundation, here, for Bethlehem Steel Corp., Bethlehem, Pa. About $150,000. C. L. Reeder, Park Ave. and Saratoga St., Baltimore, engr. Noted July 8.

O., Springfield—Courthouse—Until Oct. 7, by Comrs. Clark Co., remodeling 3 story, rein.-con., steel and brick, rein.-con. flooring. About $95,000. W. K. Shilling, Fox Hollow Farm, R. D. 7, archt. Noted Aug. 12.

O., Springfield—School—Bd. Educ. receiving bids building 3 story, 119 x 138 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Bway. About $200,000. O. D. Howard, 8 East Broad St., Columbus, archt.

Ind., Indianapolis—Office—See "Industrial Works."

Ind., Indianapolis—School—Bd. School Comrs. receiving bids building 2 story, 250 x 400 ft. rein.-con., brick and steel, on East Michigan St. About $225,000. D. A. Bohlen & Son, Majestic Bldg., archts.

Mich., Detroit—Hospital—Until Sept. 20, by Mildner & Eisen, archts., 924 Hammond Bldg., constructing 2 story, 40 x 105 ft., rein.-con. and brick addition, rein.-con. flooring, on Jefferson Ave., for Evangelical Deaconess Hospital.

Minn., Minneapolis—School—Until Sept. 20, (change of date), by Bd. Educ., building 2 story, 58 x 158 ft., rein.-con., brick and stone addition to Clinton School, on 28th St. and 4th Ave. S. About $200,000. G. F. Womrath 305 City Hall, business supt. Noted Sept. 9.

Mo., Elvins—School—Until Sept. 28, by Bd. Educ. building 3 story, 45 x 150 ft., rein.-con. and brick, rein.-con. flooring. About $100,000. J. H. Felt & Co., Grand Ave. Temple, Kansas City, Mo., archts. and engrs. Noted Aug. 12.

Col., Cheyenne Wells—High School—Until Sept. 21, by Bd. Educ. building 2 story, 125 x 168 ft., concrete, brick and steel, concrete foundation. About $100,000. Montjoy, French & Frewen, Chamber Commerce Bldg., Denver, archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Augusta—Hotel—Augusta House, 168 State St. let contract building 4 story, 26 x 130 ft., brick and steel addition, rein.-con. flooring, concrete foundation, to D. B. Frost Co., Augusta. Noted Sept. 2.

★Me., South Brewer—School—St. Theresa Society let contract building 2 story, 35 x 75 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, to J. Grady & Son, 19 Davis St., Bangor. About $100,000. Noted Sept. 9.

★N. H., Manchester—Schools—City let general contracts building (1) Franklin St. School, (2) West Side High School, (3) Practical Arts High School, to I. F. Woodbury, 185 Summer St., Boston, Mass., (1) $267,500; (2) $399,000, (3) $645,700. Noted Aug. 12.

Buildings (Continued)

★**Mass., Boston**—Office—Desmond & Ord, archts., 15 Beacon St., let contract to L. P. Soule & Son Co., 80 Boylston St., building 8 story, 90 x 125 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Arlington Ave., for Massachusetts Bonding & Insurance Co., 77 State St. About $500,000. Noted Apr. 1.

★**Mass., Pittsfield**—Store and Office—Harding & Seaver, archts., 7 North St., let contract to C. H. Cunningham & Son Co., 3 Central Ave., Lynn, building 2 story, 12 x 130 ft., brick, concrete and terra cotta, rein.-con. flooring, concrete foundation, on North St., here, for W. T. Grant Co., 28 West 23rd St., New York City. Noted Sept. 2.

★**R. I., Providence**—Business—J. and L. Samuels, 176 Weybosset St., let contract building 5 story, 78 x 148 ft., brick and concrete, rein.-con. flooring, concrete foundation, on Eddy and Pine Sts., to Williams & Merchant, Inc., 728 Hospital Trust Bldg. About $200,000.

★**Conn., Putnam**—Hospital—Day-Kimball Hospital, 175 Pomfret St., let contract building 3 story, 35 x 105 ft., brick, steel and concrete addition, rein.-con. flooring, concrete foundation, to General Bldg. Co., 522 Harrison Ave., Boston.

★**Conn., Waterbury**—Theatre—Foti and others, c/o C. J. Bailey, archt., 95 Bank St., will build 1 story, 70 x 110 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on South Main St. About $125,000. Work will be done by day labor.

N. Y., Morris Park (Jamaica P. O.)—School—Bd. Educ. received bids Sept. 9, building P. S. 57, from P. Cleary, 115 Marion St., Brooklyn, $319,700; T. A. Clark Co., 122 Livingston St., Brooklyn, $327,300; T. Dwyer, Bway. and 216th St., New York City, $349,000.

★**N. Y., New York**—Exchange—New York Telephone Co., 15 Dey St., let contract altering and building brick and steel addition, concrete foundation, on West 89th St., to Clough-Bourne Corp., 101 Park Ave. About $100,000. Noted May 6.

★**N. Y., New York**—Home—Bronx Society for Prevention of Cruelty to Children, 355 East 137th St., let contract building 7 story, 96 x 135 ft. brick and stone, concrete foundation, on Park Ave. and 160th St., to Niewenhous Bros., 316 East 161st St. About $350,000. Noted May 13.

N. Y., New York — Market — Dept. Pub. Markets received bids Aug. 26 altering and repairing Harlem, Queensboro, Washington, Jefferson and West Washington Markets, from N. B. Smyth, 417 East 34th St., (Item 15) $61,596; M. D. Lundin, 235 East 122d St., (Item 3) $19,170.

★**N. Y., New York**—Office—Standard Oil Co. of New York, 26 Bway., let contract building 5 story extension and 12 story addition, brick, steel and stone, concrete foundation, at 18 Bway., to C. T. Wills, 286 5th Ave. Noted April 1.

★**N. J., Newark**—Exchange—New York Telephone Co., 15 Dey St., New York City, let contract building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Avon Ave., here, to W. L. Crow Constr. Co., 103 Park Ave., New York City. About $200,000. Noted July 8.

★**O., Cincinnati**—Theatre—S. and L. Schubert, Inc., 225 West 44th St., New York City, let contract building brick and stone, brick foundation, to E. Margolies, 19 East 33rd St., New York City. About $500,000. Noted May 27.

★**O., Columbus**—Church—Welsh Presbyterian Church, O and Long Sts., let contract excavating and building foundation for 2 story, 67 x 115 ft., brick, stone and steel, on Miami Ave. near Long St., to J. Pugh, 1471 East Long St.; cut stone work, to J. Kientz, 788 South 5th St.; brick work, to L. C. Heistler, Columbus; steel work, to C. E. Morris & Co., Curtis and Jefferson Sts. Total cost $125,000. Noted Feb. 12.

★**O., Lakewood** (Cleveland P. O.)—School—Bd. Educ. let general contract building 2 story 54 x 90 ft., rein.-con., brick and steel addition, rein.-con. flooring, brick and concrete foundation, on Clifton Blvd. and Summit Ave. to Schirmer-O'Hara Co., Ryder Bldg., $74,300; heating, to Price & Welker, 707 Canal Rd., $16,645. Noted Sept. 9.

★**O., Springfield**—Office and Welfare—Springfield Malleable Iron Co., 37 Bechtle Ave., let contract constructing 2 story, 87 x 100 ft., at factory site, to Concrete Constr. Co., Springfield. About $120,000.

★**Ind., Evansville**—Theatre and Hotel—Standard Evansville Realty Co. let contract building 6 story, 144 x 148 ft., rein.-con., brick and steel, concrete foundation, to M. J. Hoffman Constr. Co., Furniture Bldg. About $1,000,000.

★**Ind., Petersburg**—Court House—Comrs. Pike Co. let contract building 3 story, 110 x 110 ft., stone, brick and steel, rein.-con. flooring, to R. N. Good, Columbus. About $127,000.

★**Ind., Sullivan**—Office—Mutual Truck Co. let contract building 2 story, 80 x 100 ft. rein.-con., brick and steel, rein.-con. flooring, to M. J. Hoffman Constr. Co., Furniture Bldg., Evansville.

★**Ill., De Kalb**—Hospital—J. A. Solon let masonry contract building 3 story, brick and timber, concrete foundation, to A. Guldberb, De Kalb; carpentry, to C. Eckstrom, DeKalb. Total cost, $150,000. Noted Aug. 19.

★**Ia., Aurelia**—School—Bd. Educ let contract building 3 story, 78 x 166 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to W. J. Zitterell, Webster City. About $175,000; cost plus percentage basis.

★**Ia., Liberty Center**—School—Bd. Educ. let contract building 2 story, brick, rein.-con. and stone, to W. J. Kucharo, 622 Hubbell Bldg., Des Moines. About $100,000. Noted June 24.

Minn., Faribault—School—State Bd. Control, St. Paul, received (general contract) bids constructing 2 buildings at State School, here, from E. Bjorklund, 786 Como Blvd., St. Paul, $86,507; H. J. Frandsen, 510 Rice St., St. Paul, $92,000; R. C. Elvin & Co., 852 Plymouth Bldg., Minneapolis, $95,890. Total cost to exceed $100,000.

★**Mo., Kansas City**—Office—Bagby & Co., Orear-Leslie Bldg., let contract building 10 story, 50 x 142 ft., rein.-con., brick and terra cotta, rein.-con. flooring, at 1014 Baltimore St., to Swenson Constr. Co., Shubert Bldg. About $250,000; cost plus percentage basis.

★**Tex., Austin**—Hospital—State Bd. Control let contract building 2 story, 86 x 128 ft., brick, rein.-con. and steel, rein.-con. flooring, on West 6th St., to Walsh & Purney, Littlefield Bldg. About $138,000. Noted Aug. 26.

★**Col., Denver**—Office—Denver Rock Drill Co., 39th and Gilpin Sts., will build 3 story, 75 x 125 ft., concrete. About $100,000. Work will be done by day labor.

Federal Government Work

PROPOSED WORK

Mass., Chelsea—Lighting System—Spec. 4281—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to alter and build additions to lighting system, at Naval Hospital, here; $10 deposit required for plans and spec. Noted Sept. 2.

Pa., Phila.—Concrete Foundations for Turrets and Crane Track—Spec. 4299—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids building, at Navy Yard, here. Work involves 12 and 15 in. rein.-con. slabs, crane track including concrete footings, pile foundation rails and accessories, conductor rail, underground electric conduit system, air line, etc.; $10 deposit required for plans and spec.

Md., Aberdeen—Steel Hangar—Construction Quartermaster, here, soon receives bids building 1 steel hangar, on proving ground, to accommodate navy type C-2 airship.

Md., Annapolis—Boiler Plant Equipment and Piping—Spec. 4292—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install, here.

D. C., Wash.—Pumping Facilities—U. S. Engrs Office preparing plans for pumping facilities for Key Bridge, to include electrically driven pumps, etc. About $100,000.

Va., Ft. Meyer—Quartermasters' Shops—Construction Quartermaster, here, soon receives bids building quartermasters' shops.

Va., Hampton Roads—Seaplane Runway—Spec. 4267—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build at Naval Operating Base, here, to have wood piles, concrete walls, piers and platform; $10 deposit required for plans and spec. Noted Aug. 19.

Ga., Camp Bennings—Infantry School—Construction Quartermaster, here, soon receives bids building infantry school.

Tex., Ft. Crockett—Machine Shop—Construction Quartermaster, here, soon receives bids building addition to machine shop.

Wash., Ft. Worden—Machine Shop—Construction Quartermaster, here, soon receives bids building machine shop.

Wash., Keyport—Double Radio Quarters—Spec. 4291—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Wash., Puget Sound—Double Radio Quarters—Spec. 4290—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Ore., Marshfield—Radio Quarters and Post Office—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build double radio quarters and remodel post office.

Ore., Ft. Stevens—Machine Shop—Construction Quartermaster, here, soon receives bids building machine shop.

Cal., Ft. Winfield Scott—Machine Shop—Construction Quartermaster, here, soon receives bids building machine shop.

BIDS DESIRED

R. I., Providence—Dredging—Until Oct. 11, at U. S. Engr. Office, dredging in Thames River, Conn.; advertised in this issue.

N. Y., Brooklyn—Electric Distributing System—Spec. 4286—Until Sept. 29, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here; advertised in this issue.

Pa., Phila.—Steel Dump Scows—Until Oct. 14, at U. S. Engr. Office, furnishing and delivering, here; advertised in this issue.

D. C., Wash. — Hoisting Plant — Until Oct. 30, by A. L. Flint, genl. purch. officer, Panama Canal, Wash., D. C., purchasing hoisting plant (for handling coal and general merchandise); advertised in this issue.

D. C., Wash.—Electric Traveling Cranes—Spec. 4239—Until Sept. 22, by Bureau Yards & Docks, Navy Dept., delivering 40 ton electric traveling bridge cranes at Navy Yard, Phila. and New York. Noted Aug. 26.

D. C., Wash.—Storehouse—Spec. 4155—Until Sept. 29, by Bureau Yards & Docks, Navy Dept., building storehouse for combustibles, here; $10 deposit required for plans and spec. Noted Sept. 2.

Va., Hampton Roads—Drainage System—Spec. 4121—Until Sept. 29, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here; $10 deposit required for plans and spec.

Va., Norfolk—Conduit, Dam, etc.—Until Oct. 11, at U. S. Engr. Office, building rein.-con. conduit, earth dam, bank protection and dredging in Appomattox River, at Petersburg; advertised in this issue.

Va., Quantico — Water Supply Main — Spec. 4200—Until Sept. 22, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building 16 in. c.i. water supply main at Marine Barracks, here. Noted Sept. 2.

N. C., Wilmington — Remodeling Post Office — Until Sept. 30, by Treas. Dept., Wash., D. C., remodeling (except life), here, J. A. Wetmore, superv. archt.

Tenn., Memphis — Steel Barges — Until Oct. 11, by Mississippi River Comn., 1st and 2nd Dists., Custom House, furnishing 5 steel barges; advertised in this issue.

Mo., St. Louis—Earthwork—Until Sept. 30, at office of Secretary Mississippi River Comn., 1311 International Life Bldg., building 55,000 cu.yd. earthwork in Riverland Levee Dist.; advertised in this issue.

N. M., Albuquerque — Surfacing — Until Sept. 28, by Bureau Pub. Rds., U. S. Dept. Agriculture, Room 218, Luna-Strickler Bldg., gravel surfacing 7.5 mi. Mondo-Moscalero Project, Lincoln Natl. Forest, Lincoln Co., involving 5.7 mi. subgrading and 7,500 cu.yd. 1 course gravel. E. S. Wheeler, dist. engr.

Cal., Mare Island — Concrete Paving — Spec. 4296—Until Sept. 21, by Local Navy Yard, concrete paving Railroad Ave between 12th and 14th Sts., along north end of structural shop, with cross connection to 12th St., certain approaches to structural shop, also sidewalk along west side of structural, involving 4,800 sq.yd. pavement and 700 sq.yd. sidewalk; $10 deposit required for plans and spec.; payable to C. W. Parks, ch. Bureau Yards & Docks, Wash., D. C.

Cal., San Diego—Fleet Supply Storehouse—Spec. 4264—Until Sept. 29, by Bu-

Federal Government Work (Continued)

reau Yards & Docks, Navy Dept., Wash., D. C., also at office of Pub. Wks. Officer, U. S. Navy, San Diego, building at foot of Bway., here; advertised in this issue. Noted Sept. 9.

Cal., San Diego — Quartermaster Storehouse—Spec. 4280—Until Oct. 6, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building at marine base, here. Noted Sept. 2.

Cal., San Diego — Hospital Buildings—Spec. 4300—Until Oct. 13, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing 6 hospital buildings at Marine Corps Base here; $30 deposit required for plans and spec.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., South Boston** (Boston P. O.)—Tracks—Spec. 4196 — Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract completing railroad tracks for dry dock at U. S. Naval Dry Dock here to M. Seretto, 3 Tremont Row, Boston, $134,750 (120 days). Noted Aug. 19.

★**Del., Wilmington**—Dredging—U. S. Engr., War Dept., Wash., D. C., let contract dredging in St. Johns River, here, to Delaware Dredging Co., Colonial Trust Bldg., Phila., Pa., $8,293.

S. C., Columbia — Post Office — Treas. Dept., Wash., D. C., receives bids Sept. 3 completing here, from Northeastern Constr. Co., 101 Park Ave., New York City, $144,-210; Westchester Eng. Co., 111 Main St., White Plains, N. Y., $146,500; N. C. Heslep and A. J. Bethea, 1209½ Washington St., $147,000. Noted Aug. 5.

S. C., Paris Island—Improving Hospital—Spec. 4262—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Sept. 8 repairing at Marine Barracks here (1) work complete, from Newport Contg. & Eng. Co., Silsby Bldg., (1) $13,835 (120 days); N. Clifford, 322 28th St., (1) $16,-200 (120 days), both contractors of Newport News, Va. Noted Aug. 26.

★**Miss., Vicksburg**—Stern Wheel Steel Towboat Hull—Mississippi River Comn., 3rd Dist., let contract building steel hull for towboat "Control," to Dravo Contg. Co., Diamond Bank Bldg., Pittsburgh, Pa., $35,533. Noted Aug. 5.

★**Tenn., Memphis**—Levee Work—Mississippi River Comn., 1st and 2nd Dists., let contract for levee work in Upper and Lower Francis and White Levee as follows: Sta. 36/13 to 36/52, Upper St. Francis Levee and Sta. 158/38, Lower St. Francis Levee, to Roach, Stansell Lawrence Bros. & Co., North Memphis Savings Bank Bldg., $90,000 and $22,200 respectively; Sta 29/24 to 30/52, Lower St. Francis Levee, to M. Jennings & Bros., Caruthersville, Mo., $133,200; Sta. 20/11 to 20/23, 21/20 to 21/28 and 50/10 to 50/36, White River Levee, to W. H. Dennison, Cushman, Ark., $73,500. Total cost, $318,900.

★**Mo., St. Louis**—Stern Wheel Steamboat—Secretary Mississippi River Comn., 1311 International Life Bldg., rejected bids received Aug. 30 rebuilding and delivering. Work will be done by day labor. Noted Aug. 5.

★**Utah, Park City — Post Office** — Treas. Dept., Wash., D. C., let contract building here, to Campbell Bldg. Co., Newhouse Bldg., Salt Lake City, $20,452. Noted Aug. 12.

Miscellaneous

PROPOSED WORK

Memorial Gate—Worcester, Mass.—Sheehant & Colleary, archts, 120 Boylston St., Boston, soon lets contract building large stone memorial gate on campus for Holy Cross College, Alumni Assn. Cost to exceed $25,000.

Conduit System—New Britain, Conn.—City plans to construct vitr. hollow tile and wood fiber conduit system, 10,000 ft. on West Main St. and 50,000 ft. on Park St. J. D. Williams, City Hall, engr.

Bins—Buffalo, N. Y.—Maretine Trading Corp., 16 Pratt St., plans to build four 16 x 70 ft. concrete and tile grain elevator bins, on Hopkins St. About $50,000. L. R. Veatch, 428 Pratt St., archt.

Flume—Trenton, N. J.—See "Streets and Roads."

Bath House and Swimming Pool—Dallas, Tex.—City had plans prepared building bath house, also 60 x 120 ft. swimming pool 4-9 ft. deep, at Gaston Park. About $43,-851. G. D. Fairtrace, city engr.

Lighting System — Ayton, Ont. — R. H. Fortune, Ayton, plans to build lighting system here; power will be obtained from Ontario Hydro Comn. About $25,000.

BIDS DESIRED

Laundry Equipment, etc.—Binghamton, N. Y.—Until Oct. 6, by State Hospital Comn., Capitol, Albany, for laundry equipment, renewal of electric wiring, extension of electric lines, etc., at laundry building of State Hospital, here. E. S. Elwood, secy.; advertised in this issue.

Piles, Bulkhead, etc.—Brooklyn, N. Y.—Until Oct. 13, by E. S. Walsh, supt. pub. wks., Capitol, Albany, driving foundation piles for proposed grain elevator, building bulkhead wall along Henry St. slip and dredging Henry St. Basin at Gowanus Bay here (Contr. 79); advertised in this issue.

Borings—Long Island City, N. Y.—Until Sept. 20, by M. E. Connolly, pres. Queens Boro., furnishing labor and material for making 4,000 lin.ft. vertical borings in Jamaica Bay Blvd. from point 1,396 ft. south of Sheridan Ave. to south bulkhead line of Jamaica Bay.

Tunnels, Conduits, etc.—Marcy, N. Y.—Until Oct. 6, by State Hospital Comn., Capitol, Albany, building tunnels, conduits and heating work for service connections, sanitary work, sewerage and water supply systems, and electrical generator set and underground electric service connections, for Utica State Hospital, Marcy Div., here. E. S. Elwood, secy.; advertised in this issue.

Motor Trucks, etc.—New York, N. Y.—Until Sept. 24, by Bd. Purchase, Room 526, Municipal Bldg., furnishing and delivering motor trucks, wrecking cars, etc. for Dept. Street Cleaning; laundry and cleaning supplies for Depts. Bellevue and Allied Hospitals, Pub. Welfare and Water Supply, Gas and Electricity.

Foundation Piers—Oswego, N. Y.—Until Oct. 13, by E. S. Walsh, supt. pub. wks., Capitol, Albany, building concrete foundation piers for proposed grain elevator on Barge Canal Terminal Pier here; advertised in this issue.

Sanitary Work—Utica, N. Y.—Util September 29, by State Hospital Comn., Capitol, Albany, for sanitary work and renewing plumbing in Infirmary Bldg. of Utica State Hospital. E. S. Elwood, secy.; advertised in this issue.

Dump Cars—Toledo, O.—Central Mchy. & Equipment Co., 343 Spitzer Bldg., receiving bids for six 36 in. gauge, 2 yd. 2 way dump cars.

Locks—Chicago, Ill.—Until Oct. 18, by F. I. Bennett, dir. Dept. Pub. Wks. & Bldgs., Div. Waterways, 25 East Jackson Bld., building Marseilles Lock, near Bell Island, in Illinois River. M. G. Barnes, ch. engr.; advertised in this issue.

Steam Shovel—Ft. Scott, Kan.—D. P. Thomas, c/o Ft. Scott Hydralatic Cement Co., receiving bids for ½ or ¾ yd. steam shovel, preferably Erie.

Dams—New Brunswick—Until Sept. 21, by New Brunswick Electric Power Comn., Canada Permanent Bldg., St. John, building 3 earth dams, one over East Branch of Musquash River, 12 mi. from St. John and 1 mi. from line of New Brunswick Southern Ry., including spillway, intake, by-pass, etc. and grading a bed to carry a penstock from dam to power house, one over West branch of Musquash River, 12 mi. from St. John and 1 mi. from line of New Brunswick Southern Ry., including items named above together with construction of canal and grading for penstock from dam to power house; and other over Shogomac River, 40 mi. north of Fredericton on line of St. John & Quebec Ry., including items named above together with construction of canal and grading for penstock from dam to power house. C. O. Foss, ch. engr.

Sprinkler and Flusher — Verdun, Que. — City receiving bids for a 14,000 gal. motor sprinkler and flusher. A. L. Ghysens, city engr.

Wall—Chatham, Ont.—Until Sept. 30, by Dept. Pub. Wks., Ottawa, building 182 ft. revetment wall. About $35,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Breakwaters—Bridgeport, Conn.**—City Bd. Park Comrs. let contract building 2 breakwaters in Long Island Sound, one from Steeplechase Island and other from Seaside Park to Bridgeport Light, involving 4,000 tons stone, etc., to Bridgeport Dredge & Dock Co., 1024 Main St.

★**Pier and Approach—Barren Island, N. Y.** (Brooklyn P. O.)—M. Hulbert, comr. docks, Pier "A," ft. of Battery Pl., New York City, let contract building concrete pier and approach north of here, to A. M. Hazell, 26 Cortland St., New York City, $84,934. Noted Aug. 26.

Feeder and Cables—Brooklyn, N. Y.—Fire Dept. received bids Sept. 2, furnishing and installing underground feeder and telephone cables between new and old Central Office, from J. Sudgen Co., $39,271.

Dock Wall, Yards and Jib Cranes—Buffalo, N. Y.—E. S. Walsh, Supt. Pub. Wks., Albany, received bids Sept. 9, building (a) dock wall around Ohio Basin, here (Terminal Contr. 53-A), (b) storage yards at Erie Basin, here (Terminal Contr. 76), (c) furnishing and installing two 3 ton semi-portal revoving jib cranes on Barge Canal at Erie Basin, here, (Terminal Contr. 114) from Grant, Smith & Co., 918 Downer Ave., Utica, (a) $579,830; Empire Eng. Co., Inc., 6 Church St., New York City, (a) $596,381, (b) $22,825; Great Lakes Dredge & Dock Co., Morgan Bldg., (a) $621,487; Mohawk Dredge & Dock Co., Inc., Manion Blk., Herkimer, (b) $22,520; Heyl & Patterson, Inc., 90 West St., New York City, (c) $19,-857; Shepard Electric Crane & Hoist Co., Main St., Montour Falls, (c) $25,970. Noted Aug. 12.

★**Pier—New York, N. Y.**—M. Hulbert, comr. docks, Pier "A," ft. of Battery Pl., let contract building concrete pier on East 29th St., to A. M. Spooner & Son, Pier 11, North River, $34,756. Noted Aug. 26.

Removing Sludge, etc.—New York, N. Y.—H. H. Curran, pres. Manhattan Boro., received bids for removing sludge from sewers, etc., from J. D. Malloy, $59,400; P. J. Kearns, 2306 Creston St., $70,200; P. J. Healey, Grand Central Palace, $76,-500; furnishing and delivering wood paving block, from Amer. Creosoting Co., 17 Battery Pl., $7,397.

★**Road Material—New York, N. Y.**—H. H. Curran, pres. Manhattan Boro., let contract furnishing and delivering 200,000 gal. refined asphalt, to Warner Quinlan Co., 79 Wall St., $20,700; 10,000 bags portland cement, to J. A. McCarthy, 551 Exterior St., $12,475; 1,500 cu.yd. paving sand, to H. W. Young, $3,075; castings, etc., to Central Fdry. Co., 90 West St., $13,436. Noted Aug. 19.

Trucks and Tractors—New York, N. Y.—Bd. Purchase, Municipal Bldg., received bids furnishing and delivering 100 gasoline motor driven trucks, from International Motor Co., 252 West 64th St., $366,766; White Co., Madison Ave. and 45th St., $420,747; Pierce Arrow Co., 233 West 54th St., $436,153; furnishing and delivering 150 tractors, from J. T. Tractor Co., $185,000; Holt Mfg. Co., 50 Church St., $212,500; Cleveland Tractor Co., 1780 Bway., $218,-200. Noted Aug. 26.

Terminal—Rouses Point, N. Y.—E. S. Walsh, Supt. Pub. Wks., Albany, received only bid Sept. 9, completing terminal, here, Terminal Contr. 26-A, from W. F. Martens, 53 Franklin St., Rochester, $33,940. Noted Aug. 12.

Yard—New York, N. Y.—J. H. Delaney, comr. Transit Constr., 49 Lafayette St., received bids Aug. 31 building portion 7th and Lexington Aves., Rapid Transit R.R., from O. Daniels, Woolworth Bldg., $596,-000; Rogers & Haggerty, $623,000; Rice & Ganey, 421 East 42d St., $646,000. Noted Aug. 26.

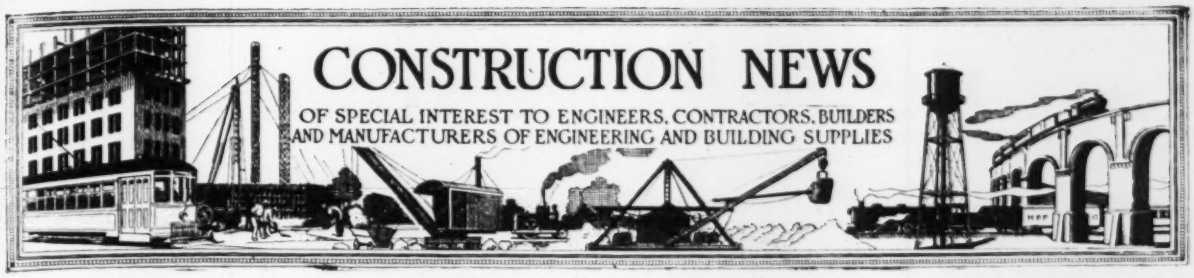
Retaining Wall, etc.—Cleveland, O.—Bd. Educ., East 6th St. and Rockwell Ave., received low bid Sept. 6, building retaining wall, iron fence, grading and laying brick driveways and stone walks, at North Doan School, on East 105th St. near St. Clair Ave., from Bolton-Pratt Constr. Co., Columbia Bldg., $28,600. Noted Aug. 12.

★**Piles, etc., Detroit, Mich**—Water Bd., 232 Jefferson Ave., let contracts to Raymond Concrete Pile Co., Owen Bldg., furnishing labor and material for driving 438,-000 lin.ft. concrete piles, at $2,085 per lin. ft., also excavating 50,000 cu.yd. earth, $2.48, total $1,037,230. Noted July 29.

★**Dam, etc.—Barron, Wis.**—Barron Light & Water Comn. let contract building concrete dam, 120 ft. wide, also spillway and tailing gates, across Yellow River, to Siems, Helmers & Schaffner, 514 Guardian Life Bldg., St. Paul, Minn.

★**Elevator—Bazine, Kan.**—Associated Mill & Elevator Co., New York Life Bldg., Kansas City, let contract building 26 x 27 ft. rein.-con. elevator, 90 ft. high, 20,000 bu. capacity, to F. Kaucher Co., Grand Ave., Temple, Kansas City, Mo. Cost plus percentage basis.

★**Wharf—St. Francois D'Orleans, Que.**—Dept. Pub. Wks., Ottawa, Ont., let contract repairing wharf, here, to S. Ratte, St. Anne de Beaupre. About $33,000; cost plus percentage basis. Noted June 17.



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 27	Seattle, Wash.	Sept. 9
Sept. 27	Sioux Falls, S. D.	Sept. 23
Sept. 30	New York, N. Y.	Sept. 23
Oct. 11	Allentown, Pa.	Sept. 16
Oct. 14	Sacramento, Cal.	Sept. 16

SEWERS

Sept. 27	Wash., D. C.	Sept. 23
	Adv. Sept. 23.	
Sept. 30	Salt Lake City, Utah	Sept. 16
Oct. 1	Slayton, Minn.	Sept. 23
Oct. 1	Charleston, W. Va.	Sept. 23
Oct. 4	Pontiac, Mich.	Aug. 26
	Adv. Sept. 16 and 23.	
Oct. 4	Augusta, Wis.	Sept. 23
Oct. 4	Columbus O.	Sept. 23
Oct. 11	Cleveland, O.	Sept. 23
Oct. 13	Ossining, N. Y.	Sept. 23
Oct. 30	Yorkville, O.	Sept. 23

BRIDGES

Sept. 25	Farmville, Va	Sept. 9
Sept. 25	Hillsville Va.	Sept. 9
Sept. 28	Michigan	Sept. 23
Sept. 28	Vale, Ore.	Sept. 23
Sept. 29	Illinois	Sept. 23
Sept. 30	New Orleans, La.	Aug. 26
Sept. 30	San Antonio, Tex.	Sept. 23
Sept. 30	Chatsworth, Ga.	Sept. 23
Sept. 30	Wickenburg, Ariz.	Sept. 9
Oct. 19	Alabama	Sept. 23
	Adv. Sept. 23.	
Oct. 19	Alabama	Sept. 23
Oct. 22	Detroit, Mich.	Sept. 23
	Adv. Sept. 23.	

STREETS AND ROADS

Sept. 27	Quebec, Que.	Sept. 9
Sept. 27	San Antonio, Tex.	Sept. 23
Sept. 27	Wisconsin	Sept. 23
Sept. 28	Kaufman, Tex.	Sept. 2
Sept. 28	Kaufman, Tex.	Sept. 9
Sept. 28	Grand Rapids, Mich.	Sept. 16
Sept. 28	New York	Sept. 16
	Adv. Sept. 16 and 23.	
Sept. 28	New Orleans, La.	Sept. 16
Sept. 28	Maryland	Sept. 16
	Adv. Sept. 16 and 23.	
Sept. 28	Ishpeming, Mich.	Sept. 23
Sept. 28	Grosse Pointe Park (Detroit P. O.), Mich.	Sept. 23
Sept. 28	Oregon	Sept. 23
Sept. 28	Newark, N. J.	Sept. 23
Sept. 28	Baltimore, Md.	Sept. 23
Sept. 29	New York, N. Y.	Sept. 23
Sept. 29	Baltimore, Md.	Sept. 23
Sept. 29	Illinois	Sept. 23
Sept. 29	Waukesha, Wis.	Sept. 23
Sept. 29	Wisconsin	Sept. 23
Sept. 30	Alabama	Sept. 16
Sept. 30	Marlin, Tex.	Sept. 23
Sept. 30	Florida	Sept. 23
Oct. 1	Nashvile, N. C.	Sept. 16
Oct. 1	Michigan	Sept. 23
Oct. 2	San Antonio, Tex.	Sept. 23
Oct. 4	Washington	Sept. 23
Oct. 4	Michigan	Sept. 23
Oct. 4	Akron, O.	Sept. 23
	Adv. Sept. 16 and 23.	
Oct. 5	Missouri	Sept. 23
Oct. 5	Seguin, Tex.	Sept. 23
Oct. 6	Faribault, Minn.	Sept. 16
Oct. 6	Faribault, Minn.	Sept. 23
Oct. 6	New Jersey	Sept. 23
	Adv. Sept. 23.	
Oct. 6	Michigan	Sept. 23
Oct. 7	Wisner, Neb.	Sept. 23
Oct. 8	Ohio	Sept. 23
Oct. 8	Moundsville, W. Va.	Sept. 23
Oct. 13	Pennsylvania	Sept. 23
	Adv. Sept. 23.	
Oct. 15	San Benito, Tex.	Sept. 16
Oct. 19	Shakopee, Minn.	Sept. 23

RAILWAYS

Sept. 30	New York	Sept. 23
Oct. 1	Ontario	Sept. 16

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Sept. 27	Eudora, Ark.	Sept. 2
Sept. 27	Helena, Ark.	Sept. 9
Sept. 29	Covington, Tenn.	Sept. 16
Sept. 29	Billings, Mont.	Sept. 23
Oct. 1	Harvel, Ill.	Sept. 16
Oct. 1	Mason City, Ia.	Sept. 16
Oct. 2	Lamar, Col.	Sept. 23
	Adv. Sept. 23.	
Oct. 5	Wapello, Ia.	Sept. 23
	Adv. Sept. 23.	
Oct. 7	Cleveland, Miss.	Sept. 23

INDUSTRIAL WORKS

Sept. 28	Neillsville, Wis.	Sept. 23
Sept. 29	Buffalo, N. Y.	Aug. 26
Sept. 30	New York, N. Y.	Sept. 23
	Adv. Sept. 16 and 23.	
Oct. 2	London, Ont.	Sept. 23
Oct. 15	London, Ont.	Sept. 23
Oct. 15	Tilbury, Ont.	Sept. 23
Nov. 1	Webb City, Mo.	Sept. 16

BUILDINGS

Sept. 24	Coatesville, Pa.	Sept. 23
Sept. 25	Montville, Conn.	Sept. 23
Sept. 25	Port Chester, Pa.	Sept. 16
Sept. 27	Ebensburg, Pa.	Sept. 9
Sept. 27	New Orleans, La.	Sept. 9
Sept. 28	Elvins, Mo.	Sept. 16
Sept. 28	Hurdsfield, N. D.	Sept. 23
Sept. 30	New Britain, Conn.	Sept. 23
Oct. 1	Granite City, Ill.	Sept. 2
Oct. 1	Muskegon, Mich.	Sept. 23
Oct. 1	Montreal, Que.	Sept. 23
Oct. 1	Peabody, Mass.	Sept 23
Oct. 1	Indianapolis, Ind.	Sept. 23
Oct. 3	Canton, O.	Sept. 9
Oct. 4	Great Neck, N. Y.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 12	Huron, S. D.	Sept. 2
Nov. 15	Dallas, Tex.	Sept. 23

FEDERAL GOVERNMENT WORK

Sept. 25	Harbor Development—Spec. 4136—Great Lakes, Ill.	Aug. 19
Sept. 27	Buildings—Columbus, Ga.	Sept. 23
Sept. 28	Surfacing — Albuquerque, N. M.	Sept. 16
Sept. 28	Radical Brick Chimney — Phila., Pa.	Sept. 23
	Adv. Sept. 23.	
Sept. 29	Drainage System — Spec. 4221 — Hampton Roads, Va.	Sept. 16
Sept. 29	Fleet Supply Storehouse—Spec. 4264—San Diego, Cal.	Sept. 16
	Adv. Sept. 16 and 23.	
Sept. 29	Electric Distributing System —Spec. 4286 — Brooklyn, N. Y.	Sept. 16
	Adv. Sept. 16 and 23.	
Sept. 30	Metal Work—Key West, Fla.	Sept. 2
Sept. 30.	Remodeling Post Office — Wilmington, N. C.	Sept. 16
Sept. 30	Earthwork—St. Louis, Mo.	Sept. 16
	Adv. Sept. 9 to 23.	
Oct. 6	Quartermasters Storehouse —Spec. 4280 — San Diego, Cal.	Sept. 16
Oct. 6	Lighting System — Spec. 4281—Chelsea, Mass.	Sept. 23
Oct. 11	Conduit, Dam, etc.—Norfolk, Va.	Sept. 16
Oct. 11	Dredging — Providence, R. I.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 11	Steel Barges — Memphis, Tenn.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 13	Hospital Buildings—Spec. 4300—San Diego, Cal.	Sept. 16
Oct. 14	Dump Scows—Phila., Pa.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 15	Scotch Marine Boilers, etc. —Jacksonville, Fla.	Sept. 23
	Adv. Sept. 23.	
Oct. 22	Dredging—Norfolk, Va.	Sept. 23
	Adv. Sept. 23.	
Oct. 30	Hoisting Plant—Wahington, D. C.	Sept. 16

MISCELLANEOUS

Bids Close		See Eng. News-Record
Sept. 24	Motor Trucks, etc.—New York, N. Y.	Sept. 16
Sept. 27	Well, Well House, etc.—Sioux Falls, S. D.	Sept. 9
Sept. 27	Wire and Cables—Detroit, Mich.	Sept. 23
Sept. 27	Truck—New York, N. Y.	Sept. 23
Sept. 28	Crushed Trap Rock or Lime Stone—Kaufman, Tex.	Sept. 9
Sept. 29	Sanitary Work—Utica, N. Y.	Sept. 16
Sept. 29	Fire Alarm System—Central Islip, N. Y.	Sept. 23
	Adv. Sept. 16 and 23.	
Sept. 29	Asphalt Plant—New York, N. Y.	Sept. 23
Sept. 30	Transformers, etc.—Sacramento, Cal.	Aug. 19
Sept. 30	Wall—Chatham, Ont.	Sept. 16
Sept. 30	Pipe—New Orleans, La.	Sept. 23
	Adv. Sept. 23.	
Oct. 1	Pumping Engine—Janesville Wis.	Sept. 9
Oct. 1	Tractors Grader, Road Drags—Jacksonville, Fla.	Sept. 23
Oct. 4	Foundation, etc.—Toledo, O.	Sept. 23
Oct. 6	Laundry Equipment—Binghamton, N. Y.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 6	Tunnels, Conduits, etc. — Marcy, N. Y.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 11	Ferry Boat—New York, N. Y.	Sept. 23
Oct. 13	Piles, Bulkhead, etc. — Brooklyn, N. Y.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 13	Piers—Oswego, N. Y.	Sept. 16
	Adv. Sept. 16 and 23.	
Oct. 18	Locks—Chicago, Ill.	Sept. 16
	Adv. Sept. 16 and 23.	

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mo., Moberly — City having plans prepared for pipe line, pumping station, filter plant and impounding dam. About $350,000. Fuller & Beard Chemical Bldg., St. Louis, engrs. Noted July 15.

N. C., Burgaw—See "Sewers."

Ia., Atlantic—City soon receives bids building rein.-con. reservoir, with 250,000 gal. capacity. J. H. Mayne, Atlantic, engr.

Minn., Madelia—S. O. Noonan, city clk., soon receives bids for pumping equipment and sinking well. About $12,000. J. W. Shaffer, 501 New York Life Bldg., Minneapolis, engr.

Minn., South St. Paul—City having plans prepared for waterworks improvements. Bonds for $85,000 voted for project.

Kan., Everett—City plans election soon to vote on $30,300 bonds to furnish labor and material improving waterworks system, to include laying 10,290 ft. 2-4 in. c.i. pipe, 18 fire hydrants, 40,000 gal. tank, etc. E. T. Archer, New England Bldg., Kansas City, Mo., engr.

Neb., North Platte—City plans to improve waterworks system. About $50,000. Engineer not selected.

S. D., Scotland—City election Sept. 28, to vote on $45,000 bonds to extend waterworks system.

Wyo., Casper—City election Nov. 2, to vote on $500,000 bonds to extend and maintain waterworks system.

Ark., Ft. Smith—M. F. Smith, city comr., soon receives bids furnishing labor for improving waterworks system. About $200,000. Wyncoop-Kursted, Mutual Bldg., Kansas City, Mo., engrs.

Streets and Roads (Continued)

Okla., String City—City having plans prepared building waterworks system. About $40,000. H. G. Olmstead & Co., 415 Oil Exchange Bldg., Oklahoma, engrs.

Okla., Vinita—City election Nov. 4 to vote on $460,000 bonds to build 2 concrete dams, 5 mi. pipe line, plant, tower and intake. H. G. Olmstead & Co., 417 Oil Exch. Bldg., Oklahoma, engrs.

Ont., London—Utilities Bd. plans to extend water mains into new factory area. About $50,000. E. V. Buchanan, Hydro Offices, engr.

BIDS DESIRED

N. Y., New York—Until Sept. 30, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Room 2351, Municipal Bldg., furnishing, delivering and installing additional discharge lines at 179th St. Pumping Sta.

S. D., Sioux Falls—Until Sept. 27 by City Comrs. building well, well house and appurtenances. W. C. Leyse, aud. Noted Aug. 12.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mich., Owosso—City let contract furnishing labor and material building water filtration plant, 1,800,000 gal. capacity, to Ann Arbor Asphalt Constr. Co., Ann Arbor. About $75,000.

Sewers

PROPOSED WORK

N. C., Burgaw—City plans to build waterworks and sewerage systems. About $90,000. Carolina Eng. Co., Wilmington, engrs.

N. C., Cherryville—Cherryville Mfg. Co. and Howell Mfg. Co. plan to build sewerage system. About $25,000. Carolina Eng. Co., Wilmington, engrs.

Ill., West Frankfort — Bd. Local Impvt. retained C. B. Mautz, engr., Benton, to prepare plans for storm sewers in North Douglas St., involving about 4,000 ft. 36 in pipe.

Minn., Wabasso—City rejected bids Sept. 9, building sewage treatment plant and general sewer. About $45,000. Work may be readvertised. J. F. Druar, 512 Globe Bldg., St. Paul, engr.

Neb., Chappell—City having plans prepared by Henningson Eng. Co., engrs., Natl. Bldg., 12th and Harney Sts., Omaha, for sewerage system. About $80,000.

Wyo., Casper—City election Nov. 2, to vote on $150,000 bonds to extend and maintain sewerage system.

Mo., Excelsior Springs—City election Oct. 4 to vote on $25,000 bonds to build disposal plant and main sewer. Shockley Eng. Co., Kansas City, Mo., engrs.

Mo., Joplin—City having plans prepared building sewers, involving 111,229 ft. 8-30 in pipe, 287 manholes, 57,000 cu.yd. earth excav. and 430 cu.yd. concrete. About $291,000. S. B. Ashcraft, city engr.

Mo., Springfield—City having plans prepared building sewers in Dist. 9, involving 24,000 ft. 8 in. vitr. pipe. About $40,000. W. C. Culler, Springfield, engr.

Okla., Oklahoma—City soon receives bids building sewage disposal plant. About $1,000,000. Pierce, Greely & Hansen, 39 West Adams St., Chicago, Ill., engrs.

BIDS DESIRED

N. Y., Ossining—Until Oct. 13, by C. F. Rattigan, supt. state prisons, Calitol, Albany, building sewerage and waterworks systems, at Sing Sing Prison, here.

D. C., Washington—Until Sept. 27, by Dist. Comrs., building 1,100 lin.ft. 21-24-in. sewers. L. Brownlow, ch. clk.; advertised in this issue.

W. Va., Charleston—Until Oct. 1 by B. H. Hill, city mgr., building 11,900 lin.ft. 8-48 in. sewers. E. Bruce, city engr.

O., Akron—See "Streets and Roads."

O., Cleveland—Until Oct. 11, by Bd. Educ., building 3 sewage treatment and water pumping plants, brick and concrete, brick and concrete foundation, in Parma Twp. About $50,000. L. H. Geiss, clk. C. W. Bates, Natl. Bank Bldg., Wheeling, W. Va., archt.

O., Columbus—Until Oct. 4, by village, extending and repairing sewage disposal plant, on Dawson Ave. S. N. Roderick, clk.

O., Yorkville—Until Oct. 30, by J. T. Fawlis, clk., and Village Council, furnishing labor and material for construction of complete sanitary sewerage system. About $75,000. Noted July 8.

Wis., Augusta—Until Oct. 4, by city, laying 30,000 ft. 8-20 in. vitr. pipe sewers in various streets. About $80,000. H. Olk, Antigo, engr. Noted Sept. 9.

Minn., Slayton—Until Oct. 1, by Village Council, building storm sewers involving 1,600 ft. 10 in. tile, 5.5 ft. deep, 500 ft. 10 in. tile 4 ft. deep and 14,500 ft. 6 in. tile 4 ft. deep. About $25,000. E. G. Minder, Slayton, engr.

Neb., Wisner—See "Streets and Roads."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Conn., Bristol—Bd. Pub. Wks. let contract building 500 ft. sewer in Muzzey St., 1,025 ft. Atkins Ave., 500 ft. Wolcott St., 650 ft. Union St., 1,000 ft. Burlington Ave. Sect. A, to A. Di Marco, 221 Berlin Ave., Southington; 2,250 ft. Burlington Ave. Sect. B, 600 ft. Lewis St., 250 ft. Curtis St., to C. Vacco, Terry Rd., Bristol. Noted Sept. 2.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Sept. 20, building sewers in (a) Lyon Ave., (b) 76th St., (c) 39th St., (d) borings in Jamaica Bay Blvd., from Green Contg. Co., 734 Vernon Ave., Astoria, (a) $23,370, (c) $3,793; J. H. Johnson, (a) $27,005; Pease Bros., (a) $27,056, (c) $3,987; Saverio & Britton, (b) $33,850; Murphy Bros., (b) $34,620; C. Petracca, (b) $34,828; Kennedy & Smith, 94 Main St., Flushing, (c) $3,842; C. S. Edwards, (d) $8,800; Childs Co., (d) $11,400; Philips & Worthington, 90 West St., New York City, (d) $15,800. Noted Sept. 16.

★Md., Baltimore—Bd. Awards, c/o City Register, let contract building hydrolytic tank and appurtenances, also sludge digestion tank, pipe lines and appurtenances, at Sewage Disposal Works, west shore Back River, Baltimore Co., to Robertson Bros., 106 Hopkins Pl. About $165,460. Noted Sept. 2.

Mich., Detroit—City received bids furnishing labor and material building sewer in Bauman and State Fair Aves. from Seven Mile Rd. to Ralston Ave., from J. Porath, 34 McGraw Bldg., $195,764, Jeynes & Affeld, 1208 Ford Bldg., $229,710; Halleck Ave. from Jos. Campau to Dequindre Sts., from W. Porath, 1410 West Grand Blvd., 5 ft., cylinder at $30 per ft., 4 ft., $22, manholes, $279 each, total $69,855, Langley & Barton, Detroit, 5 ft., $37.50, 4 ft., $35, manholes $400, R. D. Baker, Penobscot Bldg., 5 ft., $30, 4 ft., $25, manholes, $400. Noted Sept. 9.

★Minn., Eveleth—City let contract building north side sewerage system and laying water mains from Virginia Rd. to Adams Location, to Lawrence & McCann Co., Eveleth, $71,687.

Bridges

PROPOSED WORK

Me., Ashland—Town and State Highway Dept., Augusta, plan to build bridge over Machias River, here. About $50,000. P. D. Sargent, state highway engr.

Me., Westbrook—City rejected bids building 80 ft. steel bridge, 30 ft. wide, over Presumpscott River, on Cumberland St. About $40,000. Work will probably be done by day labor. Noted Sept. 9.

R. I., Bristol—Mt. Hope Bridge Comn., State Capitol, Providence, plans to build concrete and steel bridge over Mt. Hope Bay, from here to Portsmouth. Cost will run into millions.

Conn., Groton (New London P.O.)—State Highway Dept., Hartford, plans to build concrete and steel bridge over Mystic River, from here to Stonington. C. J. Bennett, Hartford, state highway comr.

S. C., Sumter—L. D. Jennings and others plan to build steel bridge across Sautee River. About $500,000. I. F. Beiser, Columbia, engr.

O., Cambridge—City, Guernsey Co., Pennsylvania R.R. and Baltimore & Ohio R.R., plan to build 800 ft. concrete viaduct on Dewey Ave. over railroad tracks and Willis Creek. About $200,000. Railroads will pay 65% of cost and county and city the remainder.

Wis., Melrose — City having plans prepared for 612 ft. rein.-con. or steel bridge, over Black River. State Highway Comn., Madison, engrs.

Kan., Hutchinson—Reno Co. plans election soon to vote on bonds to build 450 ft. rein.-con. bridge, 20 ft. wide, in Hewen Twp. Work involves 1,600 cu.yd. rein.con., 35 ton steel, 5,400 lin.ft. wooden piling and 5,000 cu.yd. earth approach. D. E. Gilmer, Hutchinson, engr.

Kan., Hutchinson—Reno Co. plans to build 450 ft. rein.-con. bridge, 20 ft. wide, in Reno Twp., involving 1,620 cu.yd. rein.-con., 40 ton steel, 5,440 lin.ft. wooden piling and 2,000 cu.yd. earth approach and fill. D. E. Gilmer, Hutchinson, engr.

BIDS DESIRED

Ga., Chatsworth—Until Sept. 30, by Bd. Comrs. Rds. and Murray Co. building Federal Aid Bridge Project over Rock Creek. Work will consist of (1) construction of 895 lin.ft. of earth fill and top soil roadway, involving 10,628 cu.yd. borrow excav. and 775 cu.yd. top soil surfacing, (2) 105 ft. rein.-con. bridge, involving 103.5 cu.yd. Class "A" and 85.41 cu.yd. Class "B" concrete, 35,480 lb. reinforcing steel, 40 cu.yd. foundation excav. Alternate bids will also be received on bridge designed by Luten Bridge Co., involving 133.15 cu.yd. Class "A" and 90 cu.yd. Class "B" concrete, 8,940 lb. reinforcing steel and 35 cu.yd. foundation excav. J. M. Campbell, chn.

Alabama—Until Oct. 19, by State Highway Comn., Montgomery, building bridge over Tallapoosa River, near Judkins Ferry. W. S. Keller, state highway, engr.; advertised in this issue.

Alabama—Until Oct. 19, by L. G. Smith, state bridge engr., Montgomery, building two 175 ft. steel camel back spans and two 120 ft. steel Pratt truss spans, 416 lin.ft. concrete approach and 5 concrete piers, over Tallapoose River, Elmore and Montgomery Counties, 9 mi. north east of Mont-

Michigan—Until Sept. 28, by F. F. Rogers, state highway comr., Lansing, and Bd. Rd. Comrs. Wayne Co. (Detroit) building State Reward Bridge 54-821. 401, over River Rouge, Northville Twp., to have two 12 ft. concrete abutments, one 9 ft. pier and 2 span continuous skew T-beam superstructure, 88 ft. overall, involving 387 cu.yd. concrete.

Mich., Detroit—Until Oct. 22, by Dept. Pub. Wks., furnishing labor and material, tools, equipment and other means of construction, all preliminary and temporary structures for facilitating or protecting work necessary to build Belle Isle Bridge. J. A. Martin, comr.; advertised in this issue.

Illinois—Until Sept. 29, by Dept. Pub. Wks. & Bldgs., Springfield, building following bridges on Vandalia-Cairo Highway, Federal Aid Project 14, substructure for 120 ft. steel bridge and 1 concrete bridge, to have one 30 ft. span, on Sect. 15B, Pulaski Co., involving 465.8 cu.yd. concrete; superstructure for 1 steel bridge, 120 ft. span, Sect. 15C, Pulaski Co.; Springfield-Danville Highway, Federal Aid Project 18, 1 concrete bridge, to have five 45 ft. spans, Sect. 2B, Champaign Co., 995.7 cu.yd. concrete; National Highway, Federal Aid Project 9, 1 concrete and steel bridge, to have one 60 ft. steel span, also 2 concrete bridge, to have eight 26 ft. spans, Sect. U2, Fayette Co., 1,386.2 cu.yd. concrete.

Tex., San Antonio—Until Sept. 30, by F. Fries, city clk., building rein.-con. bridge over San Antonio River on Simpson St.

Ore., Vale—Until Sept. 28, by State Hghway Comn., Room 520, Multnomah Co. Court House, Portland, building bridge over Malheur River, near here. Alternate bids on one 180 ft. steel, one 105 ft. or three 64 ft. wood truss spans, involving 205-315 cu.yd. concrete.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. H., Portsmouth, Piscataqua River Bridge Comn., City Hall, received bids building superstructure for bridge over Piscataqua River between here and Kittery, Me., from Bethlehem Steel Corp., 111 Bway., New York City, $928,400, Amer. Bridge Co., 127 Franklin St., Boston, $1,036,500; building piers, abutments etc., for above, Holbrook, Cabot & Rollins Corp., 6 Beacon St., Boston, $830,000. Noted Sept. 2.

R. I., Providence—Water Supply Bd. City Hall, received bids Sept. 15, building Danielson Pike Bridge and embankment, from T. F. McGovern, 95 Main St., Southbridge, $51,600; W. V. Polleys & Co., 217 Turks Head Bldg., $56,050; McKinnon Constr. Co., 70 Water St., East Providence, $58,105. Noted Aug. 26.

N. Y., New York — M. Hulbert, comr. Docks, Pier "A," received bids Sept. 15, furnishing labor and material building inshore portion of Brooklyn Bridge Improvement, from H. Steers, Inc., 17 Battery Pl., $242,463; Robbins-Ripley, 50 Church St., $256,383; Phoenix Constr. Co., 41 Park Row, $259,897. Noted Sept 9.

N. J., Newark—Essex Co. received bids Sept. 7, building (a) Columbia Bridge, on South Orange Ave., (b) Hanover Creek Bridge, on Mt. Pleasant Ave., both over Passaic River, from A. E. Smith, 220 Park Ave., Plainfield, (a) $78,713, (b) $76,788;

Bridges (Continued)

Linde-Griffith Co., 4th Ave., Branch Brook, (a) $95,430, (b) $89,980; M. Averill, 196 Woodside Ave., (b) $66,753. Noted Aug. 26.

★**North Carolina**—State Highway Comn., Raleigh, let contract building concrete bridge across Yadkin River between Montgomery and Stanley Counties, Federal Aid Project 116, to Council, Young Co., Macon, Ga., $175,000; small concrete bridges in Randolph Co., Federal Aid Project 101 A, to J. A. Kreis & Co., Knoxville, Tenn., $27,000; 6 concrete bridges in Forsyth Co., Federal Aid Project 111, to Heilig-Sherril Co., Winston-Salem, $26,500. Cost to be borne by State and above mentioned counties.

★**Illinois** — Dept. Pub. Wks. & Bldgs., Springfield, let contract building bridges on following sections of Effingham-Fairfield Highway, Federal Aid Project 23, steel and concrete bridge on Sect. 5 B, Clay Co., to Lincoln Constr. Co., Chicago, $16,200, 4 concrete bridges and 2 concrete culverts Sect. 8 B, Wayne and Clay Counties, to Montgomery & Parker, Rockport, Ind., $52,316; Mt. Vernon-Fairfield Highway, Federal Aid Project 16, 1 steel bridge to have 150 ft. span, Sect. 17 B, Wayne Co., to Genl. Constr. Co., Arcade Bldg., St. Louis, Mo., $45,833, 4 concrete bridges Sect. 17 C, Wayne Co., to Montgomery & Parker, Rockport, Ind., $81,926; Springfield-Danville Highway, Federal Aid Project 18, 1 steel bridge to have 60 ft. span, Sect. 5 B, Champaign Co., to S. B. Stewart, Oreana, $9,325, 1 concrete bridge to have three 40 ft. spans, Sect. 7 B, Piatt Co., to W. F. Lodge, Monticello, $20,283; National Highway, Federal Aid Project 9, superstructure of bridge on Sect. U, Fayette Co., to St. Louis Structural Steel Co., Bank of Commerce Bldg., St. Louis, Mo., $41,203, substructure of bridge on Sect. U-1, Fayette Co., to Frazier-Davis Constr. Co., Arcade Bldg., St. Louis, Mo., $43,000; East Moline-Princeton Highway, Federal Aid Project 20, 1 steel on Sect. 4 B, and 2 concrete bridges Sect. 3 B, Henry Co., to W. H. Shons, Freeport, $16,989 and $20,233 respectively, 4 concrete culverts, Sect. 4 C, and 2 concrete bridges Sect. 5 B, Henry Co., to H. A. Reschke Constr. Co., 527 North College Ave., Geneseo, $9,784 and $9,831 respectively, 1 steel bridge, to have 120 ft. span, Sect. 6 B, Henry Co., to W. H. Shons, Freeport, $21,103, 2 concrete bridges Sect. 7 B, Henry and Bureau Counties, to M. R. Deyo & Co., Peoria, $17,181, 1 concrete bridge, Sect. 8 B, Bureau Co., to H. A. Reschke Constr. Co., 527 North College Ave., Geneseo, $4,863, bridge repairs, Sect. 10 B, Bureau Co., to W. H. Shons, Freeport, $5,500; Monmouth - Galesburg Highway, Federal Aid Project 21, 2 concrete bridges Sect. 2 B, Warren Co., to Lincoln Constr. Co., 3020 South Halsted St., Chicago, $20,225; Vandalia-Cairo Highway, Federal Aid Project 14, 2 steel bridges, each to have 90 ft. span, Sect. 23 B and 3 concrete bridges, Sect. 23 C, Fayette Co., to W. C. Johnson, Belleville, $50,309 and $61,198 respectively, substructure for 1 steel bridge, Sect. 2 B, Jackson Co., to C. S. Edwards, Edwardsville, $47,444, superstructure for 1 steel bridge, Sect. 2 C, Jackson Co., to Illinois Steel Co., Jacksonville, $50,701. Noted Aug. 19.

★**Cal., Marysville**—Bd. Supervs. Yuba Co. let contracts building 9 small bridges over various streams, to H. L. Hite, Marysville; T. Polk, 511 2nd St., Chico; Jenkins & Wells, 3560 Y St., Sacramento, total $26,123.

Que., Montreal—See "Miscellaneous"—Walls—C. A.

Streets and Roads

PROPOSED WORK

Alabama—State Highway Dept., 3d Div., Montgomery, plans to grade, drain and surface 17 mi. Enterprise-Elba Rd., sand-clay, also build one 200 ft. and one 300 ft. concrete bridge, Coffee Co., cost $210,000; 24 mi. Geneva-Hartford Rd., sand-clay, and one 100 ft. wooden bridge, Geneva Co., $250,000; 6.95 mi. Montgomery-Tuskogee Rd., gravel, and one 500 lin.ft. concrete pile trestle bridge, Elmore Co., $196,000; 11.6 mi. Alexander City-Jackson Gap Highway, bituminous macadam, Tallapoosa Co., $390,000; 5.5 mi. Goodwater-Ashland Rd. and 6 mi. Goodwater-Sylocouga Rd., bituminous macadam, Coosa Co., $140,000 and $138,000 respectively; 17 mi. Abbeville-Eufaula Rd., sand-clay, and three 60 ft. timber bridges, Henry Co., $240,000; grade and surface 7 mi. Montgomery-Birmingham Highway, gravel, and one 80 ft. concrete bridge, Elmore Co., $115,000.

O., Lisbon—Columbiana Co. plans to pave 3½ mi. road from East Palestine to Negley, concrete. About $150,000. H. Armstrong, Lisbon, engr.

Ind., Ft. Wayne—Allen Co. plans to grade, drain and pave 15,747 ft. Young Rd., 12 ft. wide, waterbound macadam. About $33,400. A. W. Grosvenor, co. surv.

Mich., Detroit—City plans to surface .75 mi. Ponchartrain Rd. from Seven Mile Rd. to Hamilton Blvd., 50 ft. wide, gravel on stone foundation. E. G. Heckel, Farwell Bldg., comr. parks and blvds.

Wis., Sheboygan—City received no bids Sept. 7 grading, surfacing and building sidewalks with combined curb and gutter on 1.1 mi. North 6th St. from Pennsylvania to Michigan Aves., 20 ft. wide. About $40,000. Work may be done by day labor. Noted May 13.

South Dakota—State Highway Comn., Pierre, soon receives bids grading, gravelling and draining 4.3 mi. road, 24 ft. wide, Charles Mix Co., involving 22,000 cu.yd. excav., 6,450 cu.yd. gravel surfacing, 560 lin.ft. corrugated iron or concrete pipe culverts, 180 cu.yd. concrete for culverts, 11,000 lb. steel reinforcement, about $39,800; 13.04 mi. Yankton-Vermillian Rd., 36 ft. wide, Clay Co., 110,000 cu.yd. excav., 900 ft. corrugated iron or concrete pipe culverts, 105 cu.yd. concrete for culverts and 4,500 lb. steel reinforcement, $87,700. F. W. Schreiber, state highway engr.

Montana—State Highway Dept., Helena, received no bids building 8.71 mi. Belknap-Furlong Highway, Federal Aid Project 90, Sanders Co., involving 47,987 cu.yd. common, 500 cu.yd. intermediate and 162 cu.yd. rock excav., 11,145 sta.yd. overhaul, 934 lin. ft. 12-36 in. corrugated iron pipe, 40.48 cu. yd. Class "B" concrete in headwalls, 9,315 M. ft. lumber in guard rail.

Missouri—State Highway Dept., Bolivar, received no bids Sept. 7 building 13.864 mi. Bolinger Springfield Rd. (Springfield Special Rd. Dist.), Federal Aid Project 33, Polk Co. About $90,496. Noted Sept. 2.

Tex., McKinney — Collin Co., Copeville Dist., voted $24,000 bonds and Lavan Dist. $60,000 bonds to build roads. J. B. Crockett, co. engr. Noted Aug. 12.

Tex., Sinton — San Patricio Co. received no bids Aug. 26 grading, surfacing and draining 12.04 mi. Highway 9 through Rd. Dist. 5, cost $191,549, also 15.5 mi. Highway 9 through Rd. Dist. 1, $157,845. Work will be readvertised. A. C. Pancoast, Beeville, co. engr. Noted Aug. 19.

Col., Denver—City plans to pave with asphalt East Colfax Ave. from Colorado Blvd. to city limits; South Bway. from Exposition Ave. to city limits; Federal Blvd. from West Lake Pl. to Colfax-Larimer viaduct; West Colfax Ave. from Colfax viaduct to Sheridan Blvd.; East 8th Ave. from Sheridan Blvd. to Bway. and from Franklin to William Sts.; Santa Fe Drive from Alameda to West Colfax Aves. About $1,000,000. J. B. Hunter, city engr.

Col., Denver—City receives bids about Jan. 1, paving 11 block Alley Paving Dist. 61, 16 ft. wide, involving 8,300 sq.yd. concrete, cost $21,321; 12 block Alley Paving Dist. 62, 16 ft. wide, 9,220 sq.yd. concrete, $23,803. J. B. Hunter, City Hall, engr.

Oregon—State Highway Dept., Salem, rejected bids Aug. 24 gravel surfacing 7.9 mi. Yamhill-Gaston Sect. Tualatin Valley Highway, Yamhill Co., and 6.3 mi. Oregon City-Oswego Sect. Pacific Highway, Clackamas Co. N. Nunn, state highway engr. Noted Aug. 19.

BIDS DESIRED

N. Y., New York—Until Sept. 29, by H. Bruckner, pres. Bronx Boro., regulating, grading, curbing, building sidewalks, etc., West 230th St. from Heath to Bailey Aves., Guion Pl. from St. Lawrence to Beach Aves., East 180th St. from Grand Blvd. and Concourse to Creston Ave., West 190th St. from Davidson to University Aves., Britton St. from Bronx Park East to White Plains Rd., Bronx Park Ave. from East Tremont Ave. to East 180th St.; paving with sheet asphalt on concrete foundation, etc., roadway of Van Buren St. from Morris Park Ave. to right of way of New York, New Haven and Hartford R.R., roadway of Morris Ave. from Fordham Rd. to East 190th St., roadway of Fillmore St. from Morris Park to Van Nest Aves.; sheet asphalt on cement concrete foundation, roadway of Faile St. from Seneca to Lafayette Aves.; building sanitary sewers and appurtenances in Carlisle Pl. from East 213th St. to point 224 ft. south, Post Rd. between West 253rd and West 252nd Sts., with temporary connection between West 253rd St. and point 52 ft. north.

N. Y., New York—Until Sept. 29, by H. H. Curran, pres. Manhattan Boro., Municipal Bldg., regulating and repaving with granite block on concrete foundation roadway of Murray St. from West St. to Bway., roadway of East 97th St. from 1st to 2nd Aves.; sheet asphalt on concrete foundation roadway of 48th St. from 7th Ave. to Bway., roadway of 49th St. from 7th Ave. to Bway.; asphaltic concrete on existing concrete foundation roadway of 2nd Ave. west side curb to rail from 3rd to 4th Sts.; 3½ in. white oak or chestnut oak block on concrete foundation, roadway of 2nd Ave., curb to rail, from 1st to 3rd Sts.; asphaltic block (3 in.) on concrete foundation, roadway of East 39th St. from 3rd to Lexington Aves.

New Jersey—Until Oct. 6, by State Highway Comn., Trenton, paving Route 9, Sect. 2, Westfield Cut-off, Union Co., also c.i. pipe culvert with head walls over Ballinger Creek, Route 4, between Tuckerton and New Gretna, Burlington and Ocean Counties. A. L. Grover, ch. clk.; advertised in this issue.

N. J., Newark—Until Sept. 28, by Dept. Streets & Pub. Impvts., paving with brick and asphalt, concrete or bitulithic, Peshine Ave., also Grand Ave. from South Orange Ave. to Mt. Vernon Pl. About $25,000. M. R. Sherrerd, city engr. Noted Sept. 9.

Pennsylvania—Until Oct. 13, by State Highway Dept., Harrisburg, repaving roads in various counties. L. S. Sadler, comr.; advertised in this issue.

Maryland—Until Sept. 28, by State Rds. Comn., 601 Garrett Bldg., Baltimore, grading and draining Hereford Rd. from York Rd. 2.04 mi. west, Baltimore Co., Contr. B-38; 0.71 mi. road from New York, Pennsylvania & Norfolk R.R. to Pocomoke, Somerset Co., Contr. S-10. J. N. Makall, chn.; advertised in this issue.

Maryland—Until Sept. 28, by State Rds. Comn., 601 Garrett Bldg., Baltimore, grading and draining 1 mi. state highway from Rock Hall Ferry Landing toward Rock Hall, Kent Co., Contr. K-14. J. N. Mackall, chn. and engr.

Md., Baltimore—Until Sept. 29, by Bd. Awards, c/o City Register, City Hall, grading and paving with cement concrete, alleys listed in Private Alley Contr. 66. N. G. Ferrying, ch. engr.

W. Va., Moundsville—Until Oct. 8, by Marshall Co. grading and draining 6 mi. Bowman Ridge Rd. Meade Dist. and 2½ mi. Round Bottom Rd., Clay Dist., involving 51,000 cu.yd. excav., 660 ft. 12-18 in. corrugated iron pipe. About $35,000 and $25,000 respectively. A. Purdy, Moundsville, engr.

Florida—Until Sept. 30, by State Highway Dept., Tallahassee, building 9.55 mi. State Aid Rd. 7, between St. Lucie Co. line and Okeechobee City, involving 59 acres clearing and grubbing, 57,269 cu.yd. regular excav., 160 lin.ft. 15 in. and 42 lin.ft. 24 in. double strength T. C. pipe, 26,000 ft. Class "A" bridge timber, 1,248 lin.ft. Class "A" timber piling, 89,642 sq.yd. 8 in. local stone base; clearing, grubbing, grading and surfacing 1 mi. State aid road between Pensacola and Flomaton, concrete. C. A. Browne, state highway engr.

Ohio—Until Oct. 8, by State Highway Comn., Columbus, building roads in following counties.

Athens Co., Sect. "R" Logan-Athens Rd., 0.637 mi., grading, constructing bridges and culverts and paving with brick, $41,193.

Clermont Co., Sect. "N-2" Milford-Hillsboro Rd., 3.548 mi. grading, constructing bridges and culverts and paving with waterbound macadam, $100,197.

Sect. "A" Milford-Vera Cruz Rd. 2.433 mi., grading, constructing bridges and culverts and paving with waterbound macadam, $69,552.

Hancock Co., Sect. "D" Lima-Sandusky Rd., 6.047 mi. grading, constructing bridges and culverts and paving with monolithic brick, bituminous concrete or rein.-con., $301,975.

Hocking Co., Sect. "P-1" Logan-New Lexington Rd., 5.351 mi. grading constructing bridges and culverts and paving with bituminous macadam, $14,920.

Sect. "N" Logan-Chillicothe Rd., 6.530 mi. grading, constructing bridges and culverts and paving with waterbound macadam, $155,245.

Huron Co., Sect. "P" Oberlin-Norwalk Rd. 4.667 mi., grading, constructing bridges and culverts and paving with monolithic brick, $210,360. State to furnish brick, $136,526.

Lake Co., Sect. "A" Painesville-Ravenna Rd. 4.735 mi., grading, $32,760.

Lawrence Co., Sect. "K" Ohio River Rd., 0.97 mi., grading constructing bridges and culverts and paving with rein.-con. or bituminous macadam, $34,040.

Lorain Co., Sect. "O" Medina-Norwalk Rd., 2.5 mi. grading, constructing bridges and culverts and paving with waterbound macadam, $63,971.

Meigs Co., Sect. "L" Pomeroy-Athens Rd. 2.839 mi., grading $44,269.

Sect. "M" Pomeroy-Athens Rd., 4.007 mi., grading, $80,369.

Streets and Roads (Continued)

Sect. "O" Pomeroy-Athens Rd. 3.303 mi., grading, $91,763.

Mercer Co., Sect. "H-1" Celina-Greenville Rd., 1.5 mi., grading, constructing bridges and culverts and paving with rein.-con., $72,672.

Pike Co., Sect. "A" Waverly-Coopersville Rd., 6.1403 mi., grading, constructing bridges and culverts and paving with waterbound gravel, $41,361.

Sect. "B" Waverly-Coopersville Rd., 5.734 mi., grading, constructing bridges and culverts and paving with waterbound gravel, $36,507.

Seneca Co. Sect. "F-1" Bucyrus-Tiffin Rd., 0.884 mi., grading constructing bridges and culverts and paving with bituminous macadam $32,452.

Sect. "G" Tiffin-New Haven Rd., 2.007 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $63,790.

Sect. "D" Columbus-Sandusky Rd., 2.036 mi., grading constructing bridges and culverts and paving with bituminous macadam, $79,832.

Summit Co., Sect. "Q" Akron-Medina Rd., 2.27 mi., grading, constructing bridges and culverts and paving with rein.-con. or bituminous concrete, $143,847.

Sect. "A" Akron-Youngstown Rd., 2.49 mi., grading, constructing bridges and culverts and paving with rein.-con. or bituminous concrete, $125,822.

Williams Co., Sect. "K" Eden-Cooney Rd., 3.592 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $108,970.

Sect. "D" Bryan-Wauseon Rd., 1.582 mi., grading, constructing bridges and culverts and paving with bituminous macadam, $68,479.

Sect. "Styker" Byran-Wauseon Rd., 1.393 mi., grading, constructing bridges and culverts and paving surfacing with bituminous $98,914.

Defiance Co., Sect. "E" Bryan-Ft. Wayne Rd., 1.77 mi., surfacing with bituminous macadam, $21,781.

Jefferson Co., Sect. "J" Ohio River Rd., 0.085 mi., removing rock cliff, $11,375.

O., Akron—Until Oct. 4, by E. A. Zeisloft, dir. Pub. Serv., Delaware Bldg., resurfacing and building sewer in South Main St. from Market to Exchange Sts., asphalt or asphaltic concrete. E. A. Kemmler, engr.; advertised in this issue.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Oct. 4, Dearborn Co., Lawrenceburg, 17,768 ft. John Shank Rd., Harrison Twp., broken stone. A. E. Jackson, aud.

Jennings Co., Vernon, 14,586 ft. John Keiper Rd., Marion Twp., crushed stone. E. Bemish, aud.

Oct. 5, Alen Co., Ft. Wayne, 14,718 ft. Minnich Rd., Marion Twp.; 15,828 ft. Menshey Rd., Cedar Creek Twp.; 10,950 ft. Scherer Rd., Madison Twp.; 11,115 ft. Pulver Rd., Perry Twp.; 11,036 ft. Ashton Rd., Springfield and Maumee Twps., all stone. A. C. McCoy, aud.

Lake Co. Crown Point, Henry Ohlenkamp et al Rd., West Creek Twp.; John Love et al Rd., West Creek Twp.; Edward Yates et al Rd., Cedar Creek Twp., all gravel. G. M. Foland, aud.

Michigan—Until Oct. 1, by State Highway Dept., at dist. office, Port Huron, grading, draining and surfacing 1.12 mi. State Trunk Line Rd. 19-1, Yale Co., 20 ft. wide, involving 13,098 sq.yd. concrete or bituminous macadam and 4,487 cu.yd. earth excav.; 1.004 mi. State Trunk Line Rd. 21-13, Sect. B, Capac, 20 ft. wide, 11,775 sq.yd. concrete or bituminous concrete, 3,581 cu.yd. earth excav. Noted July 22.

Michigan—Until Oct. 4, by State Highway Dept., Lansing, grading, draining and surfacing 4.155 mi. Assessment Dist. Rd. 394.12 ft. wide, Ingham and Eaton Counties, involving 13,789 cu.yd. earth excav., 29,027 sq.yd. gravel surface, 1,516 lin.ft. pipe culverts, etc.

Michigan—Until Oct. 6, by State Highway Dept., at office of Bd. Rd. Comrs. Montcalm Co., Stanton, grading, draining and surfacing 5.53 mi. Assessment Dist. Rd. 364, 16 ft. wide, Montcalm, Isabella and Mecosta Counties, involving 19,751 cu. yd. earth excav., 51,904 sq.yd. gravel surface, 786 lin.ft. pipe culverts, etc. Noted April 22.

Mich., Grosse Pointe Park (Detroit P. O.)—Until Sept. 28, by city, furnishing labor and material grading, shaping and paving 1,600 ft. Wayburn Ave. from Hampton to Kercheval Aves., 26 ft. wide, involving 4,600 sq.yd. concrete or asphaltic concrete, etc. About $25,000. C. H. Marden, 502 Whitney Bldg., Detroit, engr.

Mich., Ishpeming—Until Sept. 28, by Bd. Rd. Comrs. Marquette Co., grading, draining and surfacing .805 mi. State Trunk Line Rd. 35-6, Sect. B, 15 ft. wide, involving 2,941 cu.yd. earth and 160 cu.yd. rock excav., 7,083 sq.yd. 12 in. waterbound macadam and 2.44 acres clearing and grubbing.

Illinois—Until Sept. 29, by Dept. Pub. Wks. & Bldgs., Springfield, improving 2,102 ft. Route 10, Sect. J, 24 ft. wide, Green Co., earth, cost $5,597; 1,800 ft. Route 5, Sect. G, 10 ft. wide, Franklin Co., concrete, $9,514; grading 8.53 mi. Vandalia-Cairo Highway, Federal Aid Project 14, Sect. 13A, 19 and 30 ft. wide, Union Co., involving 107,815 cu.yd. excav. and 25.3 cu.yd. concrete, 6.27 mi. Sect. 14A, 30 ft. wide, Union and Pulaski Counties, 121,173 cu.yd. excav. and 733 cu.yd. concrete, 4.32 mi. Sect. 15A, 30 ft. wide, Pulaski Co., 96,670 cu.yd. excav. and 169.5 cu.yd. concrete, 5.88 mi. Sect. 16A, 19 and 30 ft. wide, Pulaski Co., 67,490 cu.yd. excav. and 465.2 cu.yd. concrete; .34 mi. Springfield-Danville Highway, Federal Aid Project 18, Sect. 2A, 30 ft. wide, Champaign Co., 13,689 cu.yd. excav.

Wisconsin—Until Sept. 27, by State Highway Comn., at div. office 4, Citizens Natl. Bank Bldg., Grand Rapids, grading and paving 1.31 mi. Mauston-Kilbourn Rd., Federal Aid Project 176, Sauk Co., involving 26.3 cu.yd. Class "A" concrete, 19,602 sq.yd. gravel surfacing, 6,957 cu.yd. earth, 1,161 cu.yd. rock and 373 cu.yd. borrow excav.

Wisconsin—Until Sept. 29, by State Highway Comn., at div. office 5, Batavian Natl. Bank Bldg., La Crosse, grading and paving 2.47 mi. Black River Falls-Alma Center Rd., Federal Aid Project 84 (Sta. 0 to 100 and 139 to 169 plus 50), Jackson Co., involving 24,718 sq.yd. shale surfacing, 16 ft. wide; 3.7 mi. Alma-Mondovi Rd., Federal Aid Project 135, Buffalo Co., 2.2 acres clearing and grubbing, 32,979 cu.yd. earth and 3,996 cu.yd. borrow excav., 602 cu.yd. Class "A" concrete in culverts, 110 cu.yd. Class "A" concrete in bridges, etc.

Wis., Waukesha—Until Sept. 29, by W. Caldwell, engr. Waukesha Co., grading and building bridge on Oconomowoc Relocation, involving 20,000 cu.yd. grading, 2.1 acres clearing and grubbing, 20,000 lb. steel and 318 cu.yd. concrete. State Highway Comn, Madison, engrs.

Minn., Faribault—Until Oct. 6, by Rice Co., graveling 9 mi. Co. Job 2002, involving 1,200 cu.yd. gravel per mile, 24,300 cu.yd. load and haul. About $36,000. P. L. Hazard, Faribault, engr.

Minn., Shakopee—Until Oct. 19, by Scott Co., building 7 mi. Federal Aid Project 93, State Rd. 9, involving 6 acres clearing, 4 acres grubbing, 191,400 cu.yd. overhaul, 11,500 cu.yd. gravel surfacing and 330 cu. yd. concrete culverts. About $55,000. D. Childs, Shakopee, engr.

Neb., Wisner—Until Oct. 7, by City paving streets Dists. 1, 2 and 3, involving 25,862 sq.yd. brick on 5 in. asphalt filler base, 21,600 sq.yd. brick on 4 in. asphalt filler base, 27,400 cu.yd. grading 1,000 ft. free haul, 10,625 lin.ft. 6 in. curbing and 30 in. gutter, 17,856 lin.ft. 6 in. curbing and 24 in. gutter, etc. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs. Noted Sept. 16.

Missouri—Until Oct. 5, by State Highway Dept., Sedalia, building 4.76 mi. Sedalia-Marshall Rd. (Sedalia 12 mi. Special Rd. Dist.) Federal Aid Project 122, Pettis Co., involving 8,327 cu.yd. earth excav., 1,694 cu.yd. borrow, 1,955 sq.yd. Telford base course, 44,896 sq.yd. stone for bituminous macadam surface course, 101,016 gal. bitumen for bituminous surface course, 64.8 cu.yd. Class "B" and 10.7 cu.yd. Class "C" concrete masonry, 4,165 lb. reinforcement for concrete masonry, 92 lin.ft. 12-30 in. vitr. clay pipe culverts. About $57,270. Noted July 1.

Tex., Marlin—Until Sept. 30, by E. M. Dodson, judge Falls Co., grading, surfacing and draining 6.84 mi. Highway No. 2, through Precinct 1, inolving 38.3 acres clearing and grubbing, 177 cu.yd. Class "A" concrete, 23,917 cu.yd. gravel, 15,303 lb. reinforcing steel, 67,769 sq.yd. bituminous macadam, 23,811 cu.yd. earth borrow and 13,045 cu.yd. earth excav. About $160,600. G. W. Courter, Marlin, engr.

Tex., San Antonio—Until Sept. 27, by S. C. Bell, mayor, grading, draining, etc., .52 mi. New Braunfels Ave. from Commerce St. to Dilworth Ave., involving 1,000 lin.ft. concrete curb and 9,000 sq.yd. asphalt, concrete or bituminous macadam, cost between $27,900 and $37,150; .41 mi. Dallas St. from Romana St. to Brooklyn Ave., also Cypress St. from Brooklyn to McCullough Aves., 4,050 lin.ft. concrete curb and 6,800 sq.yd. asphalt, concrete or bituminous macadam, cost between $24,045 and $32,545; .37 mi. Jones Ave. from Kendall to Layer Sts., 3,900 lin.ft. concrete curb and 7,200 sq.yd. asphalt, concrete or bitumnious concrete, cost between $25,110 and $34,110; .86 mi. Ruiz St. from Laredo to Trinity Sts., 16,[illegible] lin.ft. concrete curb and 16,400 sq.yd. asphalt, concrete, bituminous concrete or bituminous macadam, cost between $55,140 and $75,640; .54 mi. Brooklyn Ave. from Oakland to Cypress Sts., 4,460 lin.ft. concrete curb and 7,600 sq.yd. concrete or bituminous macadam, cost between $26,805 and $36,305; .44 mi. McCullough Ave. from Cypress St. to Dewey Pl., 5,650 lin.ft. concrete curb and 8,250 sq.yd. concrete or bituminous macadam, cost between $28,9[illegible] and $39,247. H. Hillard, city engr.

Tex., San Antonio—Until Oct. 2, by J. B. Davis, judge Bexar Co., grading, surfacing and draining 6.2 mi. Highway 9 from Atascosa line north, 16 and 18 ft. wide, involving 20.7 acres clearing and grubbing, 13,329 cu.yd. borrow, 10,560 cu.yd. earth, 300 cu. yd. solid rock and 300 cu.yd. loose rock excav., 58,211 sq.yd. bituminous macadam, 5,368 lb. reinforcing steel, etc. About $128,686. C. E. Hoff, San Antonio, co. engr.

Tex., Seguin—Until Oct. 5, by J. B. Williams, co. Guadalupe Co., surfacing 3.236 mi. Meridian Highway 2, from Comal Co. line to Bexar Co. line, 16 ft. wide, involving 28,653 sq.yd. 2 in. bituminous macadam. About $47,280; including 10% for engineering and contingencies. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Washington—Until Oct. 4, by State Highway Comn., Olympia, grading, gravel surfacing and draining 1.6 mi. Inland Empire Highway from Richland to Kennewick, Benton Co.; grading, gravel surfacing, clearing and draining 1.5 mi. North Bank Highway east from Washougal, Clarke Co. J. Allen, state highway comr.

Oregon—Until Sept. 28, by State Highway Comn., Room 520 Multnomah Co. Court House, Portland, grading and macadamizing 4.8 mi. Wren-Blodgett Sect., Corvallis-Newport Highway, Benton Co., involving 8,500 cu.yd. broken stone surfacing; 5.7 mi. Oregon City-Oswego Sect. Pacific Highway, Clackamas Co., 16 ft. wide, hard surface pavement; Hubbard Creek-Brush Creek Sect., Coast Highway, Curry Co., 7,400 cu.yd. broken stone surfacing; Lawen-Crane Sect., Central Oregon Highway, Harney Co., 79,000 cu.yd. excav., 23,000 cu.yd. broken stone surfacing; Kamela-Hilgard Sect. Old Oregon Trail, Union Co., 105,000 cu.yd. excav., 2,300 lin.ft. culvert pipe, 60 cu.yd. concrete; Newberg-West Dayton Sect., West Side Highway, Yamhill Co., 3,069 lin.ft. guard fence; lining tunnel on Hood River-Mosier Sect. of Columbia River Highway, Wasco Co., 300 cu.yd. excav., 220 cu.yd. rubble masonry, 75 cu.yd. Class "A" and 150 cu.yd. Class "C" concrete, etc. H. Nunn, state highway engr.

Que., Montreal—City receiving bids paving Deslisle St., cost $36,750; Albert St., $54,500; Workman St., $32,410; Benoit St., $3,440. A. E. Doucet, city engr.

CONTRACTS AND PRICES AWARDED

(★Indicates Award of Contract)

★**Maine**—State Highway Dept., Augusta, let contract paving 3.92 mi. state road bituminous macadam. Westbrook, to A. D. Bridges Sons Co., Inc., Hazardville, Conn., $92,739.

★**Maine**—State Highway Dept., Augusta, let contract paving 4.57 mi. state road concrete, Oxford and Norway, to Hassam Paving Co., 17 Federal St., Worcester, Mass., $133,183.

★**Maine**—State Highway Comn., Augusta, let contract graveling 3.31 mi. state highway, Houlton, to Greenwood Constr. Co., Skowhegan, $61,857; 3.6 mi. state road, Island Falls and Dyer Brook, to M. Hughes, Bangor, $70,481. Noted May 20.

★**Maine**—State Highway Comn., Augusta, let contract building 2.25 mi. concrete road from Norway to Paris Twp. to J. H. Kerr, Rumford. About $75,000. Noted July 22.

★**Massachusetts**—State Highway Comn., Poston, let contract paving state highway, bituminous macadam, Kingston, to Lane Constr. Co., 37 Colony St., Meriden, Conn., $60,181.

★**Mass., Ayer**—Town let contract repairing various highways, asphalt, to Hanscom Constr. Co., 70 Kilby St., Boston. About $40,000.

★**Mass., Boston**—City let contract paving Albany St., granite block, to J. Doherty, 33 Calumet St., Roxbury, $42,144. Noted Sept. 9.

★**Mass., Pembroke**—Town let contract repairing various roads to Atwood-Thomas Constr. Co., Middleboro. About $25,000.

★**Conn., East Hartford** (Hartford P. O.)—Town let contract paving Hillstown Rd., waterbound macadam, to Natl. Constr. Co., 756 Main St., Hartford. About $25,000.

Streets and Roads (Continued)

★**Conn., Meriden**—City let contract paving South Colony St. from New York, New Haven and Hartford R.R. to south line of Cooper and Perkins Sts., to M. Moulton, Jr., Inc., 6 Beacon St., Boston, work involves 7,836 sq.yd. bitoslag at $2.84 per sq. yd.; 3,600 lin.-ft. bitoslag curbing, $1.85, etc. Cost between $35,000 and $40,000.

N. Y., Brooklyn — E. Riegelmann, boro. pres., received bids Sept. 15 improving (a) Bedford Ave. from Eastern to Empire Blvds., (b) Bedford Pl. from Brevoort Pl. to Atlantic Ave., (c) Bleecker St. from St. Nicholas Ave. to boro. line, (d) Bradford St. from Dumont to Livonia Aves., (e) Crooke Ave. from Brighton Beach R.R. to Ocean Ave., (f) Tillary St. from Fulton St. to Washington Ave., (g) 6th Ave. from 62d to 63d Sts., from Leonard Paving Co., 233 Bway., New York City, (a) $80.596; Rosenthal Eng. Co., (a) $83,396; M. J. O'Hara, (a) $83,491, (f) $5,022; Uvalde Asphalt Paving Co., 1 Bway., New York City, (b) $8,646, (c) $3,079, (d) $13,199, (e) $4,007, (g) $6,340; Brooklyn Alcatraz Asphalt Co., 1 Bway., (b) $8,967, (c) $3,-150, (d) $13,831, (e) $4,057, (g) $6,012; Grecco Bros., (f) $4,414; Scanlon Bros., (f) $4,489. Noted Sept. 9.

★**N. Y., Long Island City**—M. E. Connolly, pres., Queens Boro., let contract improving Park Lane, to Gibbet Constr. Co., $95,350; 42nd St., to Kennedy & Smith, 94 Main St., Flushing, $1,950; Harper Ave., to Welsh Bros., 14 Queen St., Astoria, $9,500; filling lot on side of Tompkins Pl., to C. Kurth, $875. Noted Sept 16.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Sept. 20, improving (a) 16th and Arcadia Aves., (b) Havemyer St., (c) 2 sections Rockaway Blvd., (d) Shell Rd., (e) Strongs Causeway, (f) Bridge Plaza north and south (sheet asphalt), (g) Bridge Plaza north and south (granite block), (h) Cooper Ave., (i) College Point Causeway, (j) 8th Ave., (k) 1st St., (l) Lawrence Ave., (m) Prospect St., from R. A. Hess, 14 Queens St., Astoria, (a) $1,386, (b) $23,596; Welsh Bros., (a) $1,575, (g) $85,110; Pease Bros., (a) $1,837, (b) $25,781, (i) $48,580, (l) $65,-539; Kennedy & Smith, 94 Main St., Flushing, (b) $25,063, (g) $92,460; Union Paving Co., Bway. and 112h St., New York City, (c) $65,315 and $72,095 respectively, (d) $147,987, (e) $95,010, (f) $34,342, (h) $30,-690, (j) $48,085, (k) $57,125, (m) $26,472; Sicilian Asphalt Paving Co., 41 Park Row, New York City, (f) $32,480, (m) $26,204; Consolidated Asphalt Corp., 52 9th St., Brooklyn, (f) $38,650, (j) $48,246, (k) $57,-442, (m) $30,897; Astoria Constr. Co., (g) $93,110; A. Mayers, (i) $30,680; H. J. Mullen, Fulton St., Jamaica, (i) $35,720, (l) $61,340; Cleveland Trinidad Co., Flushing, (j) $48,867, (k) $58,204. Noted Sept. 16.

★**N. Y., Niagara Falls**—City let contract improving Niagara St. between 3rd and 9th Sts., to Read-Coddington Eng. Co., 238 Portage Rd., $36,485.

N. Y., Niagara Falls—City received bids Sept. 3, paving 3rd St. between Falls and Main Sts., from Raed-Coddington Engr. Co., 238 Portage Rd., (sheet asphalt) $49,066, (asphaltic concrete) $48,262, (wood block) $62,730.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Sept. 15 improving (a) 54th St. from 7th to 9th Aves., (b) West End Ave. from 69th to 72d Sts., (c) West End Ave. from 76th to 91st Sts., (d) 4th Ave. from 32d to 34th Sts., (e) Front St. from Montgomery to Jackson Sts., from W. J. Fitzgerald, 547 West 45th St., (a) $40,901, (b) $28,304, (c) $153,612, (d) $13,563, (e) $30,766; J. L. Brusstar, Harlem River and 150th St., (a) $44,313; Asphalt Constr. Co., 547 West 45th St., (a) $45,850, (b) $30,396, (c) $166,488; Uvalde Asphalt Paving Co., 1 Bway., (b) $33,011, (c) $234,111; P. J. Kearns, 2306 Creston St., (d) $13,379, (e) $31,325. Noted Sept. 9.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received bids Sept. 20, repaving Arthur Kill Rd. from Woodrow to Richmond Rds., from J. Donovan, 2205 Richmond Terrace, Port Richmond, $164,042; Aivixa Corp., $169,077; W. P. McDonald, Port Richmond, $177,585. Noted Sept. 16.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received bids Sept. 14, repaving with concrete roadway of Arthur Kill Rd. from Sharott to Fosters Rds., from W. J. McDonald Constr. Co., $165,071; J. Johnson Sons, $174,470; J. E. Donovan, 2205 Richmond Terrace, Port Richmond, $175,386.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., received bids Sept. 15, repaving Arthur Kill Rd. from Woodrow to Foster Rds., from W. P. McDonald, $163,-120; Awixa Corp., Mt. Vernon, $167,097. Noted Sept. 9.

★**New Jersey**—State Highway Dept., Broad St. Bank Bldg., Trenton, let contract surfacing 8,000 sq.yd. Route 1 from Highland Park to Hotel Pine, to Standard Bitulithic Co., 50 Church St., New York City. About $34,000. Noted Aug. 26.

N. J., Jersey City—Bd. Freeholders Hudson Co. received bids Sept. 9, improving Schuyler Ave. in Harrison and Kearny, from Oak Contractors Supply Co., 38 Park Row, New York City, $133,853; Standard Bitulithic Co., 50 Church St., New York City, $136,403. Noted Aug. 26.

N. J., Newark—Essex Co. received bids Sept. 7, improving (a) Heller Parkway, involving 1,000 cu.yd. filling, 500 cu.yd. excav., 200 ft. curbing, 5,700 cu.yd. bitoslag; (b) Chancellor Ave., Irvington, 42,000 sq.ft. bitulithic paving, 10,000 cu.yd. excav., 600 ft. header curbing; (c) Chancellor Ave., South Orange, 3,000 cu.yd. bitulithic or Warrenite paving, 1,000 cu.yd. excav.; (d) Belleville Ave., Glen Ridge, 10,000 cu.yd. excav., 1,200 ft. header curbing, 28,500 cu.yd. bitulithic or Warrenite paving; (e) Franklin Ave., Nutley, 300 cu.yd. excav., 850 ton broken stone, 500 cu.yd. scarifying, 6,200 sq.yd. bitoslag; (f) John St., 9,000 cu.yd. excav., 1,000 ft. header curbing, 29,000 sq.yd. bitoslag paving; (g) Franklin Ave., 500 cu.yd. excav., 1,200 ton broken stone, 15,-000 sq.yd. scarifying, 12,800 sq.yd. bitoslag paving; (h) Rutgers St., Belleville, 1,600 cu.yd. excav., 300 ft. header curbing, 5,100 sq.yd. bitoslag; from Northern Constr. Co., 75 Montgomery St., Jersey City, (a) $30,-130, (d) $155,067 (e) $22,281, (f) $152,020, (g) $42,796, (h) $27,663; Crescent Constr. Co., Berger St., Harrison, (a) $30,394, (e) $26,645, (f) $161,200, (g) $43,481, (h) $28,-450; Standard Bitulithic Co., 50 Church St., New York City, (b) $204,480, (c) $15,700, (d) $158,000; Newark Paving Co., 133 1st St., (b) $231,090; Osborn & Marsellis, Bellevue Ave., Montclair, (e) $21,406, (g) $41,344.

★**Pennsylvania**—State Highway Dept., Harrisburg, let contract building 34,837 ft. 1 course rein.-con. roadway on Route 115, Washington Co., to S. Gamble Co., Carnegie, $475,646. Noted June 24.

★**Pa., Phila.**—City let contracts to T. L. Flanagan, 1240 East Montgomery St., grading Grange Ave., $4,971 and Old Front St., $1,540; to R. B. Wenner, Franklin Trust Bldg., Basel St., $33,245; to Curtice Bros., League Island, Ditman St. (sidewalks), $876; to Estate of D. McMahon, Germantown and Chelton Sts., 16th St., $891; to Barber Asphalt Paving Co., Land Title Bldg., paving 20th St., $23,533 56th St., $20,372, 60th St., $24,585, 62nd St., $24,687, 65th St., $16,849, 69th Ave., $9,210, 71st and 72nd Sts., $17,076, 73rd St., $12,944, Woodstock and Lambert Sts., $7,565, Pine St., $10,160, Locust St., $9,204, Grange Ave., $26,030, Greenway Ave., $9,799, Cedar Ave., $11,357; to Eastern Paving Co., Colonial Trust Bldg., A St., $4,987, Beechwood St., $5,156, Chew St., $13,016, Clearview St., $3,830, Front St., $12,197, Lindley Ave., $5,512, Luray St., $14,475, Palethorpe St., $15,032, Palmetto St., $3,275, Rubicam St., $12,272, Ruscomb St., $13,824, Westmoreland St., $8,588, American St., $11,689, Dungan, Floyd and Glendale Sts., $3,504; to Mack Paving & Constr. Co., Nicetown Lane and C St., Albanus St., $6,317. Noted Sept. 9.

★**W. Va., Beckley**—Raleigh Co. let contract grading and draining 4¼ mi. Jarrolds Valley-Concord Rd., to Jutton Constr. Co., Pikesville, Ky., $115,379.

★**W. Va., Buchanan** — City let contract building 20,000 yd. Kanawha, Florida and Locust Sts., to Federal Paving Co., Hamilton, O. About $58,200.

★**W. Va., Ripley**—Jackson Co. let contract paving 1 mi. Ravenswood-Sandyville Rd., vitr. brick, to Bitting & Carr, Ripley, $47,930.

★**W. Va., Wellsburg**—Brooke Co. let contract paving 2 mi. River Rd. in Buffalo Dist., to Keely Constr. Co., Clarksburg, $56,220.

★**North Carolina**—State Highway Dept., Raleigh, let contract graveling 21 mi. Federal Aid Project 98A, Raleigh-Charlotte Highway, Moore Co., to J. T. Plott, Greensboro, $150,000; surfacing 10.25 mi. Federal Aid Project 101A, Ashboro-Graham Highway, Randolph Co., clay gravel, to S. L. Davis & Sons, Knoxville, Tenn., $85,000; 6 mi. Federal Aid Project 38, Natl. Highway, Caswell Co., clay gravel, to Boston Constr. Co., Marion, $50,000; 10 mi. clay gravel road from Raeford to Cumberland line, Hoke Co., to Jamison Bros., Rocky Mt., $53,000; 19.75 mi. Warrenton-Nashville Highway, Warren Co., clay gravel, to Chandler & England, Virgilina, Va., $160,000; 10 mi. Federal Aid Project 78, Wilmington-Asheville Highway, Rutherford Co., clay gravel, to R. E. Oliver, Knoxville, Tenn., $65,000; 6.5 mi. clay gravel road in Haywood Co., to O'Brien Constr. Co., Birmingham, Ala., $81,250; 5 mi. Boone Trail, Mitchell Co., rock asphalt, to Gibson Constr. Co., Knoxville, Tenn., $185,000.

★**North Carolina**—State Highway Dept., Raleigh, let contract building 7 mi. State Aid Project 100 A and 7 mi. Project 100 B, Western North Carolina Highway, Avery Co., waterbound macadam, and 2½ mi. gravel road, Madison Co., to Southern Dray Co., Asheville, $158,000, $124,000 and $75,-000 respectively.

★**Ind., Ft. Wayne**—Allen Co. let contract grading, draining and paving 7,837 ft. Pontiac St. and Reuter Rd., 18-24 ft. wide, concrete, to J. C. O'Conner & Son, 2440 Hoagland Ave., $144,039. Noted Aug. 19.

★**Ind., Ft. Wayne**—City let contracts grading, draining, curbing and paving 356 ft. Cherry St., 26 ft. wide, 588 ft. Comparet St., 26 ft. wide, 455 ft. Howell St., 24 ft. wide and 942 ft. State Blvd., 24 ft. wide, to Grace Constr. & Supply Co., 221-23 Utility Bldg., $38,929. Noted Aug. 12.

★**Michigan**—State Highway Dept., Port Huron, let contract grading and draining 5.72 mi. State Trunk Line Rd. 27-13, to H. Campbell & Son, Port Huron, $30,346. Noted Sept. 2.

★**Mich., Detroit**—City let contract furnishing labor and material for grading, shaping and paving with 1 course concrete, 2 x 6 in. retaining plank, alley 1,194 between Northfield, Ironwood, Vancouver and Ivanhoe Sts., 18 ft. wide, to Otis Cement Constr. Co., 806 Hammond Bldg., $8,636; 1,195 "T" alley between Coplin St., Piper Blvd., Freud and Jefferson Aves., 1,197, unpaved "T" alley between Belvidere, McClellan, Mack and Sylvester Aves., 1,200 east and west alley between Elmwood, Ellery, Benson and Heidelberg Sts., all 18 ft. wide, to R. A. Mercier, 746 Hudson Ave., $8,963, $6,739 and $5,654, respectively; 1,196 between Goodwin, Cameron, Owen and Westminster Sts., 1,199, "T" alley between Greenwood, 4th, and Merrick Sts. and Reed Pl., both 15 ft. wide, 1,201, north and south alley between Maxwell, Seminole, Gratiot and Medbury Sts., 18 ft. wide, to Lester & Shepard, 400 Penobscot Bldg., $5,809, $4,933 and $8,739 respectively; 1,198 "T" alley between Junction, Morrell, Fort and Lafayette Sts., 18 and 20 ft. wide, 1,202 between 12th, Wilson, Chicago and Boston Sts., 1,203 between Ironwood, Beechwood, Allendale and Pacific Sts., both 20 ft wide, to R. J. Powelson Co., 1577 Iroquois St., $7,009, $7,588 and $5,232 respectively.

★**Mich., Muskegon**—Bd. Rd. Comrs. Muskegon Co. let contract grading, draining and surfacing 1.993 mi. State Trunk Line Rd. 24-12, 16 ft. wide, to O. M. Whilton, 102 5th St., $48,177. Noted Aug. 26.

★**Illinois** — Dept. Pub. Wks. & Bldgs., Springfield, let contracts building Federal Aid Project 1, Sect. 23, Lee Co., to Pleas Constr. Co., 6 North Clark St., Chicago, $19,975; Federal Aid Project 2, Sects. L and M, Iroquois Co., to Hedges Constr. Co., Greenup, $29,040 and $19,357 respectively.

★**Illinois** — Dept. Pub. Wks. & Bldgs., Springfield, let contracts paving following sections of Effingham-Fairfield Highway, Federal Aid Project 23: 1.93 mi. Sect. 2A and 1.81 mi. Sect. 4A, Effingham Co., to Mautz & Oren, St. Elmo and Buis & Olson, St. Joseph, Mo., $28,388 and $36,713 respectively, 2.13 mi. Sect. 5A and .97 mi. Sect. 6A, Clay Co., to Cameron-Joyce & Co., Keokuk, Ia., $52,617 and $36,200 respectively, 0.4 mi. Sect. 7A, Clay Co., to M. Frazier, Louisville, $8,355; 1.94 mi. Sect. 8A, Clay and Wayne Counties, to D. C. Jordan, Rinard, $42,610; Mt. Vernon-Fairfield Highway, Federal Aid Project 16, 1.31 mi. Sect. 17A, Wayne Co., to Jobst & Gates, Peoria, $38,522; Springfield-Danville Highway, Federal Aid Project 18, 1.75 mi. Sects. 5A, Champaign and Piatt Counties, to W. Henderson, Aurora, $12,403; 0.34 mi. Sect. 6A and 0.5 mi. Sect 7A, Piatt Co., to W. F. Lodge, Monticello, $8,799 and $4,732 respectively; 1.51 mi. Sect. 12A, Macon Co., to S. B. Stewart, Oreana, $17,635; East Moline-Princeton Highway, Federal Aid Project 20, 0.95 mi. Sect. 2A, 5.94 mi. Sect 3A, Henry Co., to Goggin Constr. Co., Arcola, total, $63,552; 0.69 mi. Sect. 4A and 1.4 mi. Sect. 5A, Henry Co., to Laird & Brownell, New Canton, $7,559 and $10,854 respectively; 1.64 mi. Sect. 6A, Henry Co., 4.34 mi. Sect. 7A, Henry and Bureau Counties, and 1.57 mi. Sect. 8A, Bureau Co., to E. A. Lord Constr. Co., Monmouth, total, $58,900; 0.89 mi. Sect. 10A and 0.21 mi. Sect.

Streets and Roads (Continued)

11A, Bureau Co., to Gund-Graham Co., Freeport, total, $19,907; Monmouth-Galesburg Highway, Federal Aid Project 21, 0.9 mi. Sect. 2A, Warren Co., to Keokuk Quarry & Constr. Co., Keokuk, Ia., $22,997; Kankakee-Dixie Highway, Federal Aid Project 22, 0.32 mi. Sect. 1A, Kankakee Co., Shidler Constr. & Material Co., Kankakee, $6,450; Vandalia-Cairo Highway, Federal Aid Project 14, 3.09 mi. Sect. 3A, Jackson Co., to Hamilton Bros., Carbondale, $33,130; 3.92 mi. Sect. 23A, Fayette Co., also National Highway, Federal Aid Project 9, 1.64 mi. Sect. W, Fayette Co., to A. M. Hoolan, 607 Wainright Bldg., St. Louis, Mo., total, $171,400. Noted Aug. 19.

★**Wis., East End** (Superior P. O.)—Douglas Co. let contracts improving Lakeside Rd., Maple Twp., to Cole Bros., South Wayne, $9,073; Lakeside Rd., Lakeside Twp., to P. V. Leverin, Poplar, $1,000; Dewey-Borea Rd., Superior Twp., to O. A. Holmes and E. V. Peterson, Poplar, $1,580; Black River Rd., Superior Twp., to O. Olson, Superior, $7,706; Black River Falls Rd., Summit Twp., to J. A. Hearle, South Range, $3,481; State Trunk Highway 35, Summit and Superior Twps. also Summit and Dairyland Twps., to Peabody & Young Co., St. Paul, Minn., $19,291 and $37,130 respectively; Bardon Ave., Superior Twp., to J. Neuman, Superior, $14,651; Grand Ave., Amnicon and Hawthorne Twps., to Runquist, Thide & Williamson, Duluth, Minn., $23,073; Stone Rd., Nebagamon Village, to R. Anderson, Lake Nebagamon, $3,497; Norwell Rd., Solon Springs Twp., to A. O. Carlson, Bennett, $4,110; Brule Rd., Brule Twp., to C. Bong, Poplar, $4,860.

★**Wis., Sheboygan**—City will grade, pave and build sidewalks with combined curb and gutter on 0.9 mi. East Water St. from Pennsylvania Ave. to North 6th St., 22 ft. wide. About $25,000. Work will be done by day labor under supervision of C. U. Boley, city engr.

Wis. Sheboygan—City received only bid for grading, paving with 2 course rein.-con. and building sidewalks with combined curb and gutter on 1 mi. Bluff Ave., 20 ft. wide, from F. Pestien, 1215 Huron Ave., gutter, $0.90 per lin.ft.; paving, $3.12 per sq.yd.

★**Wis., Waukesha**—Waukesha Co. let contract mproving Arcadian Ave., Waukesha Twp., to Froemming Bros., Humboldt Ave., Milwaukee, $71,583.

★**Wis., West Allis** (Milwaukee P. O.)—City let contract improving 68th Ave., to Milwaukee Genl. Constr. Co., 857 8th Ave., Milwaukee, $38,148.

★**Minn., Aitkin**—Aitkin Co. let contract repairing 10.483 mi. Black Diamond Trail, near Trouer Lake, Jevne and McGregor Twps., macadam, to B. Olson, Aitkin, $38,407.

★**Minn., Carlton**—Carlton Co. let contract building Federal Aid Project 123, State Rd. 1, involving 2¼ mi. excav., clearing and grubbing, etc., to Gran-Biberg-Berala, Carlton, $17,900; Bridge 3314 to have two 26 ft. clear concrete spans, to Minneapolis Bridge Co., 1035 Metropolitan Life Bldg., $6,790; State Rd. 7, involving 2¾ mi. graveling, to J. Lundin, Cromwell, $1.24 per cu.yd. Noted Aug. 26.

★**Montana**—State Highway Dept., Helena, let contracts building 17 mi. Sect. B, Yellowstone Trail Highway, Federal Aid Project 86 B, to J. E. Hilton, Sheridan, Wyo., $121,711; 25.346 mi. Baker-Ekalaka Highway, Federal Aid Project 48, both Fallon Co., to B. P. Melchert, 203 Montana Bldg., Lewistown, $79,284; bridges on 8.71 mi. Belknap-Furlong Highway, Federal Aid Project 90, Sanders Co., involving 71.1 cu.yd. Class 'A" and 103.8 cu.yd. Class "B" concrete, cost $38. and $37 respectively, 10,548 lb. reinforcing and 29,600 lb. structural steel, $0.12 and $0.16 respectively, 192 lin.ft. piling, $2. and 18,000 ft. lumber in bridges, $90., to H. S. Lord, Missoula, total cost $14,548.

Missouri—State Highway Dept., Richmond, received bids Sept. 10, building 2.04 mi. State Rd. from Richmond eastward, 24 ft. wide, State Aid Project S 20.5, Ray Co., involving (1) 20,467 cu.yd. earth excav., (2) 119 cu.yd. Class "B" concrete masonry, (3) 16.8 cu.yd. Class "C" concrete masonry, (4) 9,840 lb. reinforcement for concrete masonry, etc., from W. A. Ross, Kansas City, Mo., (1) $0.79 per cu.yd., (2) $35, (3) $30, (4) $0.10, total cost $22,546; Schmidt & Land, St. Joseph, (1) $0.85, (2) $35, (3) $30, (4) $0.10, total cost $23,671; E. C. Johnson, Jefferson City, (1) $0.81, (2) $35, (3) $30, (4) $0.10, total cost $22,955. Noted Sept. 2.

★**Tex., Cameron**—Milam Co. will grade and drain 5.72 mi. Highway 44 through Ben Arnold Dist. 18, 14 ft. wide, involving 5 acres clearing and grubbing, 24, 012 cu.yd. borrow and 5,263 cu.yd. earth excav., 25,145 lb. reinforcing steel, 272.02 cu.yd. Class "A", 58.4 cu.yd. Class "B" and 125 cu.yd. 1:2:3 concrete, cost $26,047, including 10 per cent for engineering and contingencies. Work will be done by day labor under supervision of H. Reeves, co. comr.

★**Tex., Cleburne** — Johnson Co. let contracts grading, surfacing and draining 8 mi. Cleburne and Rio Vista Highway, 18 ft. wide (county to furnish all materials), involving 8,000 cu.yd. concrete, 75,000 cu. yd. gravel, 42,000 cu.yd. earth and 4,500 cu.yd. rock excav., to Williams, Burks & Co., Jacksonville, $40,000; grading, surfacing, draining and building steel bridge on 8 mi. Lone Willow-Cleburne Highway, 18 ft. wide (county to furnish materials), 6,000 cu.yd. concrete, 85,000 cu.yd. gravel, 50,000 cu.yd. earth and 4,000 cu.yd. rock excav., to O'Connor & Gilkinson, Dallas, $50,000. Noted Aug. 26.

Tex., Hillsboro—Hill Co. received bids Sept. 4, grading, surfacing and draining 14.9 mi. Highway 31 through Hill Co., 15 ft. wide, from Bibb & Hughes, Waco, $162,520; Cook & Arrington, Crockett. Work involves 114,077 cu.yd. borrow and 28,970 cu.yd. earth excav., 84,477 lb. reinforcing steel, 1,039.8 cu.yd. Class "A" and 30.7 cu.yd. Class "B" concrete. County to furnish c.i. pipe, 27,439 cu.yd. gravel, etc., cost $66,407. Noted Aug. 26.

Tex., Hillsboro—Hill Co. received bids Sept. 4, grading, gravel surfacing and draining (1) 8 mi. roads in Aquilla Special Rd. Dist. 12, 15 ft. wide, involving 15,000 cu.yd. earth and 60,000 cu.yd. borrow excav., 1,000 lb. reinforcing steel, 16,000 cu.yd. gravel, 40 M ft. treated bridge timber, 100 cu.yd. Class "A," 40 cu.yd. Class "B" and 10 cu.yd. Class "C" concrete, etc., (2) 8.5 mi. in Bynum Special Rd. Dist. 10, 15 ft. wide, 50,000 cu.yd. borrow, 30,000 lb. reinforcing steel, 7,000 cu.yd. gravel, 5,000 cu.yd. rock, 300 cu.yd. Class "A," 80 cu.yd. Class "B" and 10 cu.yd. Class "C" concrete, (3) 16 mi. in Abbott Special Rd. Dist. 7, 15 ft. wide, 70,000 cu.yd. borrow, 12,000 cu.yd. earth and 500 cu.yd. rock excav., 30,000 lb. reinforcing steel, 300 cu.yd. Class "A," 100 cu.yd. Class "B" and 10 cu.yd. Class "C" concrete, etc., (4) 40 mi. in Hubbard City and Mt. Calm Rd. Dists., 15 ft. wide, 145,000 cu.yd. borrow and 26,000 cu.yd. earth excav., 60,000 lb. reinforcing steel, 21,000 lb. steel bars, 25,000 cu.yd. gravel, 600 cu.yd. Class "A" 140 cu.yd. Class "B" and 30 cu.yd. Class "C" concrete etc., from Bibb & Hughes, Waco, (1) $90,520, (2) $91,985, (3) $129,236, (4) $244,098; Cook & Arrington, Crockett, (1) $88,195, (2) $94,346, (3) $132,503, (4) $261,025.

★**Idaho**—State Highway Dept., Boise, let contract grading and surfacing 5.35 mi. Gooding-Rupert Highway, 16 ft. surfacing, Gooding Co., involving 8,055 cu.yd. gravel, 20,945 cu.yd. earth and 2,645 cu.yd. rock excav., to R. Paysee, Twin Falls, $49,850. Noted March 11.

★**Wash., Colfax**—Whitman Co. let contracts paving with crushed rock macadam 2.5 mi. road in Impvt. Dist. 7 and 1.5 mi. in Impvt. Dist 8, to Highway Constr. Co., Colfax, $123,836 and $70,906 respectively.

★**Wash., Seattle**—City let contracts paving 24th Ave. N., et al, to R. G. Stevenson, 1327 Ewing St., $38,790; building sidewalks, curbs, etc., on 15th Ave., N.E., et al., to Fiorito Bros., 6022 2d St., N.W., $33,783. Noted Sept. 16.

Wash., Seattle—King Co. received bids Sept. 7, paving 1 mi. R. A. Ballinger Rd., 18 and 20 ft. wide, involving 4,700 cu.yd. earth excav. and 10,652 sq.yd. concrete or brick, from Kaiser Paving Co., Everett, $39,531; J. W. Hoover, Everett, $45,724.

Oregon — State Highway Comn., Salem, received bids Aug. 24, surfacing 15 mi. John Day River-Blalock Sect. Columbia River Highway, Gilliam Co., broken stone, from A. D. Kern, 178 East 15th St., Portland, $135,760; Porter & Conley, Portland, $147,800 (broken stone and screened gravel) $144,230. Noted Aug. 19.

★**Oregon**—State Highway Comn., Salem, let contracts gravel surfacing 4.94 mi. McMinnville-West Dayton Sect. West Side Highway, Yamhill Co., to E. A. Palmer, Lafayette, $24,395; 9.36 mi. Butte Creek Sect. John Day River Highway, Wheeler Co., to Blake-Compton Co., McMinnville, $74,160; 4.55 mi. Cole Bridge-Danby Ranch Sect. John Day River Highway, Grant Co., to J. Ross, Prairie City, $26,960; grading and gravel surfacing 7.86 mi. Haines-North Powder Sect. Old Oregon Trail Highway, Baker Co., to Oxman & Harrington, Baker, $99,340. Noted Aug. 19.

★**Cal., Cottonwood**—Bd. Supervs. Shasta Co. (Redding) let contract building reinf. con. approach to bridge over Sacramento River, here, to Palmer & Patterson, Redding. About $39,000.

★**Cal., El Centro**—Bd. Supervs. Imperial Co. let contract paving with portland cement concrete, 30 mi. of highways between here and Calexico, Calipatria and Brawley, Imperial and Holtville, to Peterson, Dillon & Patterson, Calexico. About $750,000. County to supply sand and gravel and do rough grading work. Noted Sept. 2.

★**Ontario**—Dept. Pub. Highways, Ottawa, let contract building ¾ mi. road, Thurlow and Tynedinaga Twps., macadam. Contracts 129 and 131 to H. T. Routty, 109 Lytton Blvd., Toronto. About $70,000.

★**Ont., Chatham**—Kent Co. let contract building 9 mi. cement concrete road from here to Erie Beach, 22 ft. G. Cutter, Chatham; cost plus percentage basis. Noted Feb. 5.

Railways

PROPOSED WORK

Maine—Maine Central R.R., Portland, plans to extend line from Skowhegan to Norridgewock, about 9.7 mi. B. T. Wheeler, Portland, ch. engr.

South Carolina—J. M. Nichols, Abbeville, and others, having survey made by Carolina Eng. Co., engrs., Wilmington, for 16 mi. line from Abbeville to Donald.

New York—Until Sept. 30, by Pub. Serv. Comn., 49 Lafayette St., New York City, special work for track crossings at Livonia Ave. Yard, Brooklyn. About $25,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Ontario—Grand Trunk Ry., McGill St., Montreal, Que., will build new railway sidings in yards at Thorold and Beachville. Work will be done by day labor under supervision of C. Forrester, supt., York St., London. Noted Sept. 16.

★**Ontario**—Grand Trunk Ry., McGill St., Montreal, Que., will build new sidings and coal chutes at Palmerton. About $50,000. Work will be done by day labor under direction of W. White, Palmerton.

Excavation and Dredging

PROPOSED WORK

Miss., Greenwood—Ditch—Abiaca Creek D. D. plans to build ditch system to reclaim 11,000 acres in Leflore, Holmes and Carroll Counties. About $175,000. Morgan Eng. Co., Goodwin Institute, Memphis, Tenn., engrs.

Ill., Bement—Drainage—Wolf Run Union D. D. 1, Piatt Co., soon receives bids building main ditch, 26,900 ft. long, 5 ft. wide at bottom, involving 46,760 cu.yd. excav.

Wis., Manitowoc—Drain—H. H. Sherwood, plans to organize board to build tile drain in Manitowoc and Calumet Counties, draining 75-100,000 acres. About $50,000. Engineer not selected.

Wis., Sheboygan—Drainage—Sheboygan Co. Drainage Bd. having plans prepared by J. Donohue, engr., 8th St., for Project 1, Sheboygan Falls, Project 2, Lima and Project 3, Sheboygan Falls, to include drainage of low lands. About $50,000. G. W. Wisselink, Hingham, chn.

Ia., Rockwell City—Dutch—Calhoun Co. received no bids Aug. 12, building Joint D.D. 181, Branch Sect. 2, 4 and 5, Calhoun, Sac, Buena Vista and Pocahontas Counties. About $250,000. Noted July 29.

Minnesota—Excavation—State and various counties in northwestern section plan to make surveys of Clearwater and Thief Rivers to prevent high water and floods. Rivers may be widened and deepened. G. W. Walker, Thief River Falls, engr. for Clearwater River, and J. Baugh Warren, engr. for Thief River.

Wyo., Casper—Ditches—City election Nov. 2, to vote on $50,000 bonds to build drainage ditches.

BIDS DESIRED

Miss., Cleveland—Canals—Until Oct. 7, by Drainage Comrs. Laban Bayou D.D., Bolivar Co. excavating Ditch 1, involving 384,861 cu.yd.; Ditch 2, 15, 100 cu.yd.; Ditch 3,115,553 cu.yd.; Ditch 4,16,763 cu.yd.; Ditch 5, 10880 cu.yd.; Ditch 5, 15,200 cu.yd.; Ditch 7, 29,387 cu.yd.; Ditch 7A, 30,980 cu.yd. Ditch 8, 74,851 cu.yd.; Ditch 9, 19,552 cu.yd.; Ditch 10, 92,660 cu.yd. and Ditch 11, 8,004 cu.yd. W. W. Boone, Cleveland, civil engr. Noted July 29.

Miss., Cleveland—Canals—Until Oct. 7, by Drainage Comrs. Christmas D.D., Bolivar Co., excavating Ditch 1, involving 192,072 cu.yd.; Ditch 2, 15, 100 cu.yd.; Ditch 2A, 21,400 cu.yd.; Ditch 3, 10,011

Excavation and Dredging (Continued)

cu.yd.; Ditch 4, 67,434 cu.yd.; Ditch 5, 46,816 cu.yd.; Ditch 6, 8,848 cu.yd.; Ditch 7, 41,489 cu.yd.; Ditch 8, 10,152 cu.yd. W. W. Boone, Cleveland, civil engr. Noted

Ia., Wapello—Drainage—Until Oct. 5 (change of date), by Bd. Supervs. Louisa Co., furnishing labor and material for drainage work in D.D. 22 and 23. F. G. Wright, engr., advertised in this issue. Noted Sept. 9.

Mont., Billings—Drain—Until Sept. 29, by G. Noyes, Drain Comr. Yellowstone Co., building Clayton drain, involving 28,711 ft. 4-26 in. salt glazed vitr. clay drain tile, 11,960 cu.yd. excav. and 10 concrete manholes with covers.

Col., Lamar—Drainage—Until Oct. 2, by Amer. Beet Sugar Co., Rocky Ford, dredging 15,900 ft. open ditch in Powers Co., involving 104,610 cu.yd. excav.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ill., Aurora**—Drainage—Kane Co. let contract building drains in Union D. D. 1, involving 1,140 cu.yd. excav. and 22,265 ft. 12-26 in. tile, to Streator Drain Tile Co., Streator, also Carpenter-Henderson Co., 118 North La Salle St., Chicago.

★**Minn., Echo**—Ditch—Yellow Medicine Co. let contract building Town Ditch 2, involving 244,770 cu.yd. excav., to Wilson Bros., 809 Security Bldg., Minneapolis, at $.17 per cu.yd. About $40,510.

★**Col., Craig**—Irrigation—J. M. Jones, 1415 Park Ave., Racine, Wis., let contract building 1,100 ft. ditch, 35 ft. wide, to irrigate 5,700 acres of land, in Moffat Co., to J. Gooldy, Craig. About $80,000.

★**N. B., St. John** — Dredging — City let contract dredging 22,100 cu.yd scow measurement of sand, silt, gravel and clay in the deep water berths at West St. John to J. A. Gregory, West St. John, $0.32 per cu.yd. Noted Aug. 12.

Industrial Works

PROPOSED WORK

Mass., Boston—J. F. Krokyn, archt., 484 Blue Hill Ave., Roxbury, soon lets contract building 3 story, 33 x 50 ft., brick, stone and steel mercantile building, concrete foundation, on Chambers St. About $50,000. Owner's name withheld.

Mass., East Pepperell—Nashua River Paper Co. plans to build rein.-con. addition to plant. About $100,000.

Mass., Holyoke—Perfect Safety Paper Co., Winter St., plans to build 60 x 100 ft., brick and concrete addition to plant, on Appleton and Winter Sts. About $100,000. Howes & Howes, 243 High St., archts.

R. I., Pawtucket — Perry & Whipple, archts. and engrs., Rhode Island Hospital Trust Bldg., Providence, soon let contract building 1 story, brick and timber addition to mill, rein.-con. flooring, concrete foundation, for Hope Webbing Co., 1005 Main St. About $100,000. Noted Aug. 26.

Conn., New Britain—B. Jahn Mfg. Co., 6 Chestnut St., rejected bids building 2 story, 40 x 150 ft., mill construction addition to factory, concrete foundation, on Cherry and Ellis Sts. About $50,000. Project indefinitely postponed. Noted Aug. 26.

N. Y., New York—J. Ruppert, Inc., 1639 3rd Ave., having plans prepared by Maynicke & Franke, archts. and engrs., 25 East 26th St., for 2 story, 50 x 200 ft. auto repair shop, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 243 East 90th St. About $50,000.

Pa., Phila.—J. F. Shellenberger, Front and Race Sts., soon lets contract building 5 story, 57 x 66 ft. candy factory, concrete and brick, at 107 Race St. A. B. Lacey, 1012 Walnut St., archt.

Del., Wilmington—Wilmington Sugar Refinery Co. plans to build brick, steel and rein.-con. refinery, rein.-con. flooring, concrete foundation. About $2,000,000. W. Higginson, 18 East 41st St., New York City, archt. and engr.

Md., Baltimore — Baltimore Malleable Iron & Steel Castings Co., Charles and Wells Sts., plans to build additional blast furnaces and install other equipment. About $100,000.

Md., Baltimore—Owens & Sisco, archts., 1605 Continental Bldg., soon let contract building 3 story, 60 x 150 ft. service station, brick and rein.-con., concrete foundation, on Maryland Ave. and Oliver St., for Del-Mar-Va-Nash Motors Co., 134 West Mt. Royal Ave. About $200,000. C. L. Reeder, Park Ave. and Saratoga St., engr.

O., Cleveland—Fageol Motors Co., c/o S. Regar of Chandler Motor Co., East 131st St. and St. Clair Ave., plans to build 3 story, rein.-con. brick and steel factory, rein.-con. flooring, brick and concrete foundation. About $200,000. Architect and engineer not selected.

O., Cleveland Heights (Warrensville P. O.)—City Ice Delivery Co., c/o H. D. Norvall, Cadillac Bldg., Cleveland, soon lets contract building 1 story, 66 x 84 ft., brick and steel storage plant, brick foundation, on Cedar and Lee Rds. About $100,000. C. C. Coneby, Cadillac Bldg., Cleveland, archt. and engr.

O., Dayton—Central Motor Co., Main and Apple Sts., plans to build 2 story, 80 x 145 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on 3d and Horace Sts. About $100,000. Architect not selected.

O., East Liverpool—Natl. Drawn Steel Co. had plans prepared for 1 story, 100 x 170 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation. About $65,000. A. L. Trout, 715 Stevens Bldg., Detroit, engr.

O., Toledo—Maumee Tire & Rubber Co., 705 Madison Ave., having plans prepared by Osborn Eng. Co., archts. and engrs., 2848 Prospect Ave., for 3 story, 100 x 300 ft., rein.-con., brick and steel factory, rein.-con. flooring, brick and concrete foundation, on Lacky Rd. About $300,000. G. G. Morrison, pres.

Mich., Detroit—Consolidated Cigar Co., St. Aubin Ave., having plans prepared by A. Kahn, archt., Marquette Bldg., for 3 story, 92 x 100 ft., brick and steel factory. About $90,000.

Mich., Marysville — Aluminum Castings Co. plans to build 2 story, brick and steel factory, brick foundation, here. About $75,000. E. E. Allyne, 2800 Harvard Ave., Cleveland, O., pres. Private plans.

Wis., Fond du Lac—Fountain City Ice Cream Co., 218 South Main St., having plans prepared by B. E. Mehner, archt., 6 East Division St., for 2 story, 60 x 180 ft. dairy plant, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Division St. About $80,000.

Wis., Marathon — Wausau Canning Co., Wausau, plans to build 4 story, brick, rein.-con. and steel factory, brick foundation, on Main St. here. About $50,000. Architect and engineer not selected.

Wis., Sheboygan—See "Buildings."

Wis., West Bend — Buemming & Guth, archts., 521 Jackson St., Milwaukee, soon lets contract building 1 story, 100 x 300 ft., concrete and timber factory, rein.-con. flooring, concrete foundation, for Schmidt & Storck Wagon Co. Noted Sept. 9.

Minn., Hamline—Minnesota State Agricultural Society, c/o T. Canfield, secy., Como Ave. near Snelling Ave., St. Paul, plans to construct 2 story, rein.-con. and brick addition to dairy on State Fair Grounds, here. About $200,000. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt.

N. D., Minot—Minot Steam Laundry plans to build 2 story, 87 x 140 ft. rein.-con. and brick laundry. About $85,000. Architect not selected.

Mo., Kansas City—A. Kahn, archt., Marquette Bldg., Detroit, Mich., soon lets contract building 1 story, 175 x 535 ft., rein.-con., brick and steel factory, and service station, rein.-con. flooring, concrete and piling foundation, on Winchester Ave., here, for Ford Motor Co., Highland Park, Detroit. Noted Sept. 9.

Mo., Springfield—Wood-Everett Stove Co. plans to build 2 story, rein.-con., brick and steel foundry, rein.-con. flooring, concrete foundation. About $100,000. Architect not selected.

Mo., St. Louis—Eagle Motor Truck Co., 6154 Bartmer Ave., plans to build factory at 6100 Bartmer Ave. About $50,000. Private plans.

Mo., St. Louis—H. P. Hess, archt., 4811 Cote Brilliante Ave., receives bids about Nov. 15, building 2 story, 58 x 160 ft. cleaning plant, brick and stone, rein.-con. flooring, for Scott Dyeing & Cleaning Co., 3928 Olive St. About $50,000.

Mo., Webb City—Rock Paint & Cloth Co. having plans prepared for 2 story, 61 x 150 ft., paint factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $150,000. Bucy Miller Eng. Co., Joplin, engrs.

Cal., San Francisco—Federal Rubber Co., Cudahy, Wis., soon lets contract building 5 story, brick and rein.-con. factory, rein.-con. flooring, concrete foundation. About $150,000. G. B. Allen, c/o owner, archt. and engr.

Que., Montreal — T. Davidson Mfg. Co., Deslisle St., plans to build 4 story, brick and steel extension on Deslisle, Workman and Albert Sts.

Que., Tartigon—B and S Lumber Co., Ft. Plain, plans to build 2 mills, one 47 x 140 ft. and other 30 x 60 ft., brick and steel, concrete foundation.

Ont., Agate—S. Bromley, Pembroke, interested in company which plans to build pulp and paper mill, here. About $500,000.

Ont., Petrolea—E. A. Stokes plans to build and equip factory for manufacture of nitroglycerine. About $100,000.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 30, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., New York City, consructing station for Dept. Street Cleaning, on Water, Dock and Front Sts., here.

Pa., Verona—P. H. Murphy Co., Stanton and Franklin Sts., New Kensington, receiving bids building 1 story, 73 x 700 ft., brick and steel factory, here. About $350,000. Austin Co., 16112 Euclid Ave., Cleveland, O., archts.

Wis., Muscoda — Muscoda Mfg. Co. receiving bids building 2 story, 75 x 100 ft., brick, rein.-con. and steel factory, rock foundation, on Main St. About $50,000. Private plans.

Wis., Neillsville—Until Sept. 28, by Neillsville Auto Co., building 1 story, 90 x 120 ft., brick and tile garage, rein.-con. flooring, concrete foundation. Balch & Lippert, Commercial Natl. Bank Bldg., Madison, archts.

Ont., London—Until Oct. 15, by London Concrete Machinery Co., Cabell Ave., building 3 story, 70 x 100 ft. rein.-con. factory, on Cabell Ave. About $100,000. Private plans.

Ont., Tilbury—Until Oct. 15, by Tilbury Auto Truck Co. building 3 story, 60 x 135 ft. brick factory. About $80,000. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Waterville**—Keyes Fibre Co. let contract building rein.-con., brick and steel addition to plant, rein.-con. flooring, concrete foundation, to Aberthaw Constr. Co., 27 School St., Boston, Mass. About $100,000.

★**Mass., Attleboro**—C. L. Rogers, 157 South Main St., let contract building 1 story, 60 x 200 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Wall St., to E. O. Dexter, Wall St. About $50,000.

★**Mass., East Walpole**—Hollingsworth & Vose Co., Washington St., let contract building 1 story, 75 x 375 ft., concrete and frame warehouse, rein.-con. flooring, concrete foundation, to M. W. Allen Constr. Co., Walpole. About $60,000.

★**Mass., Fall River**—Amer. Printing Co., 56 Water St., will build 2 story, 80 x 87 ft., stone and concrete addition to plant, concrete foundation. About $50,000. Work will be done by day labor.

★**Mass., Norwood**—Holliston Mills, Lenox Ave., let contract building 2 story, 136 x 280 ft., brick and timber factory, rein.-con. flooring, concrete foundation, also 1 story, 50 x 70 ft. brick boiler house, at plant, to W. J. Hunt, Norwood. About $300,000. Noted Sept. 2.

★**Mass., South Barre**—Barre Wool Combing Co. let contract building concrete, brick and steel factory, to H. P. Cummings Constr. Co., 14 Prospect St., Ware. About $50,000.

★**Conn., Hartford**—A. Goldstein, 593 Windsor St., will build 1 story, 100 x 110 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Maple St. About $75,000. Work will be done by day labor. Noted Aug. 5.

★**Conn., Montville**—R. Gair Paper Corp., 50 Washington St., Brooklyn, N. Y., let contract building 2 story, 200 x 500 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, also 1 story, 50 x 50 ft. power plant, here, to Barney-Ahler, 110 West 40th St., New York City. Incorrectly noted in our issue of Aug. 19.

★**Conn., Versailles**—Versailles Sanitary Fibre Mills let contract building rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, to H. W. Lines Co., 134 State St., Meriden. About $100,000.

★**Conn., Waterbury**—Waterbury Lumber Co., Inc., 107 Meadow St., let contract constructing addition to plant, including mill building, shed, etc., to F. T. Ley & Co. Inc., 499 Main St., Springfield, Mass. Cost to exceed $50,000.

★**N. Y., Brooklyn**—E. L. P. Glover, c/o J. G. Glover, archt., 222 Navy St., let contract building 2 story, rein.-con., brick and steel factory and garage, rein.-con. flooring, concrete foundation, at 218 Navy St., to Maxis Eng. & Constr. Co., 26 Court St. About $100,000.

★**N. Y., Brooklyn** — F. B. Lynch, 1049 Washington Ave., will build 1 story, 100 x 125 ft., brick and steel garage, rein.-con.

Industrial Works (Continued)

flooring, concrete foundation, on Montgomery St. About $60,000. Work will be done by day labor.

★**N. Y., Brooklyn**—M. Moskowitz, c/o J. M. Felson, archt. and engr., 1133 Bway., New York City, will build 1 story, 50 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 12th St. About $50,000. Work will be done by day labor.

★**N. Y., Lockport**—Lockport Felt Co. let contract building 1 story, 80 x 200 ft., brick and steel factory, to J. W. Cowper Co., Inc., Fidelity Bldg., Buffalo. About $80,000.

★**N. Y., New York** — J. Bernstein, 1430 Madison Ave., will build 1 story, 100 x 165 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Boston Post Rd. About $75,000. Work will be done by day labor.

★**N. Y., New York** — Building Assn. Corp., 201 West 33rd St., let contract constructing 3 story, 50 x 180 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 314 11th Ave., to Standard Concrete Steel Co., 201 West 33rd St. About $50,000.

★**N. Y., New York**—Rubin & Cahn, 406 East 149th St., will build 1 story, 150 x 220 ft., brick and steel garage, rein.-con. flooring, brick foundation, on Jerome Ave. About $50,000. Work will be done by day labor.

★**N. Y., New York**—J. Zimmerman, 557 East 160th St., will build 1 story, 100 x 130 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Fordham Rd. About $50,000. Work will be done by day labor.

★**N. J., Hoboken**—Chocolate Menier, 1127 Clinton St., will build 2 story, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Clinton St. About $100,000. Work will be done by day labor. Noted Sept. 9.

★**N. J., Trenton** — Cook Linoleum Co., East State St., let contract building 1 story, 72 x 140 ft., brick and steel boiler house to J. H. Morris Co., Broad St. Bank Bldg. About $100,000.

★**N. J., West Orange** — Edison Electric Co., Lakeside Ave., let contract building rein.-con. and steel boiler house, rein.-con. flooring, concrete foundation, to Amer. Concrete Steel Co., 27 Clinton St., Newark. About $100,000.

★**Pa., Marcus Hook**—Viscose Co. let contract building 3 story, 60 x 110 ft. brick boiler house to H. L. Morris, Chester. Noted April 1.

★**Pa., Pittsburgh** — Rieck-McJunkin Co., 1345 Forbes St., let contract remodeling, altering and building additions to 4 story, 30 x 100 ft., brick and steel dairy, on Stevenson and Forbes Aves., to A. Bloedel, Ruggles St. About $100,000.

★**Pa., Pittsburgh** — Weinstein Beverage Co., 646 5th Ave., let contract building 3 story, 48 x 110 ft. warehouse and factory, concrete, brick, steel and stone on Hamilton Ave., to B. Groah Constr. Co., 847 West North Ave. About $100,000.

★**Pa., Pittsburgh**—Whitehill Motors, Inc., 5707 Friendship Ave., let contract building 2 story, 80 x 115 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Euclid St., to Mellon-Stewart Co., Oliver Bldg. About $100,000.

★**Pa., Tabor** (Phila. P. O.)—Fox Motor Car Co., Broad and Huntingdon Sts., let contract building 3 story, 60 x 400 ft., rein.-con. and brick plant, along tracks of Reading R.R. and Grange Ave., to J. S. Rogers, 970 Drexel Bldg., Phila. About $500,000.

★**Md., Baltimore**—U. S. Printing & Lithographing Co., 429 East Cross St., let contract building 3 story, 128 x 129 ft., brick and rein.-con. addition, concrete foundation, on Cross and Covington Sts., to Consolidated Eng. Co., 243 Calvert Bldg. About $150,000.

★**Md., Baltimore**—Whitaker Paper Co., 415 Guilford Ave., let contract building 3 story, 100 x 186 ft., rein.-con. and steel warehouse, concrete foundation, on Guilford Ave., Saratoga and Davis Sts., to Turner Constr. Co., 244 Madison Ave., New York City. About $600,000.

★**O., Akron** — Miller Rubber Co., South High St., will build 3 story, 60 x 210 ft., brick and steel factory, brick foundation. About $100,000. Work will be done by day labor.

★**Mich., Detroit**—Blodgett Eng. & Tool Co., Kerr Bldg., let contract building 4 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Dalzelle St., to Lennane Bros., Union Trust Bldg. Noted Aug. 12.

★**Mich., Detroit**—Crane & Co., Atwater St., let contract building 1 story, 96 x 160 ft. warehouse, brick, steel and concrete, rein.-con. flooring, concrete foundation, on Rivard and Franklin Sts., to E. D. Jackson Co., Ford Bldg.; structural steel, to Russell Wheel & Fdry. Co., along tracks of Belt Line Ry. and Chene St. Noted July 15.

★**Mich., Ontonagon**—Northern Fibre Co. let contract building 2 story, concrete, brick and steel mill, rein.-con. flooring, concrete foundation, to W. E. Ule, Stevens Point, Wis. About $350,000.

★**Wis., Cedarburg**—Auto-Life Chain Co., c/o F. Hoya, 231 37th St., Milwaukee, let contract building 1 story, 60 x 120 ft., brick, rein.-con. and steel factory, rein.-con. flooring, brick foundation, on Main St., to T. Vollmar, Main St. About $50,000.

★**Wis., Hartford**—City let iron and steel work for 60 x 155 ft. power house on Main St. to A. F. Wagner Architectural Iron Wks., 763 North Water St., Milwaukee; coal conveyors, to Chicago Conveyor Co., 2416 West 22d St. Total cost, $50,000. Noted Feb. 5.

★**Wis., Kohler**—Kohler Co. will build 3 story, 62 x 148 ft. factory and foundry, brick and cement, rein.-con. flooring, concrete foundation. Work will be done by day labor. Contract for cement and brick let to Zimbal Brick Co., South 15th St., Sheboygan. Noted April 8.

★**Wis., Manitowoc** — Clark Oil Co., 10th St., let general contract building 1 story, 60 x 100 ft. garage, filling station, etc., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on 19th and York Sts., to B. Herman & Son, 1231 South 10th St., About $100,000. Noted Aug. 12.

★**Wis., Milwaukee**—Natl. Brake & Electric Co., Belleview Pl., let contract building 1 story, 164 x 180 ft., brick and steel addition to foundry to P. Riesen Sons, 1000 Humboldt Ave. About $250,000. Noted April 22.

★**Minn., Minneapolis**—Franklin Co-operative Creamery Co., c/o E. Solem, 11½ Western Ave., will build 1 story, 64 x 85 ft. creamery, rein.-con. and brick, on 26th St. and Franklin Ave. About $50,000. Work will be done by day labor. Noted Sept. 2.

★**Kan., Chanute**—Mutual Oil Co., Mutual Bldg., Kansas City, Mo., will build 3 story, 35 x 90 ft. wax plant, brick, rein.-con. and steel, here. About $100,000. Work will be done by day labor under supervision of Waddell Eng. Co., engrs., Sapulpa, Okla.

★**Okla., Daugherty**—Continental Asphalt & Refining Co., Oklahoma, will build brick, rein.-con. and steel refinery, rein.-con. flooring, concrete foundation. About $1,000,000. Work will be done by day labor.

★**Que., Montreal**—Natl. Drug & Chemical Co., 34 St. Paul Ave., let contract building concrete, brick and steel factory on De Courcelles St. to Church Ross & Co., 10 Cathcart St. About $75,000.

★**Ont., Ottawa**—Ottawa Paint Wks., 687 Wellington St., let contract altering 3 story brick factory on Wellington St., to A. Christie & Son, Kensington Apts., Elgin St. About $50,000.

Buildings

PROPOSED WORK

Me., Deering (Portland P. O.)—Convent—St. Josephs Convent soon lets contract building 1 and 4 story, brick and rein.-con. addition, rein.-con. flooring, concrete foundation. About $30,000. O'Connell & Shaw, 18 Boylston St., Boston, archts.

N. H., Wolfeboro — Bank—Wolfeboro Natl. Bank plans to build 2 story, 25 x 100 ft., steel, concrete foundation, on Main St. H. A. Mear, c/o Office, Bank & Library Co., 120 Tremont St., archt.

Mass., Boston—Hotel—Hotel Bellevue, 21 Beacon St., plans to build 7 story, brick and steel addition, concrete foundation. W. W. Dinsmoor, 28 School St., archt.

Mass., East Boston (Boston P. O.) — School—Bd. Educ. had plans prepared by C. G. Loring, archt., 7 Water St., Boston, for 3 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, in Samuel Adams Dist. About $250,000.

Mass., Gardner—Housing—Central Gas & Oil Stove Co., 205 School St., soon lets contract building sixteen 23 x 23 ft., brick and timber houses, concrete foundations, near plant. About $100,000. P. Varney, 24 Exchange St., Lynn, archt.

Mass., Greenfield—Courthouse—Comrs. Franklin Co., Main St., plan to build large brick and steel addition. C. P. Hoyt, 8 Beacon St., Boston, archt.

Mass., Holyoke—Church—Trinity Methodist Society, Bridge St., plans to build 1 story, brick and stone, on Summer Ave. About $150,000. Howes & Howes, 243 High St., archts.

Mass., Lowell—School—Greek Orthodox Society, c/o M. F. Davis, archt., 402 Hildreth Bldg., plans to build 2 story, fireproof on Bway. About $250,000.

Mass., Roxbury—School—Blackall, Clapp & Whittemore, archts., 20 Beacon St., Boston, preparing plans for 2 story, 75 x 220 ft. concrete, brick and terra cotta, on Elm Hill Ave. About $150,000. Owners name withheld.

R. I., Newport—High School—Bd. Educ. soon receives bids building 3 story, 140 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Bway. About $600,000. B. H. Seabury, 21 Bisse Pl., Springfield, Mass., archt.

Conn., Bridgeport—Church—O'Connell & Shaw, archt., 18 Boylston St., Boston, soon receive bids building 1 story, 70 x 145 ft., brick, stone and steel, rein.-con. flooring, concrete foundation, on Hancock and Fairfield Aves., for St. Peters Roman Catholic Church. About $100,000. C. A. Leddy, 1562 Fairfield Ave., pastor. Noted Aug. 26.

Conn., Bridgeport — Theatre—P. Dowe, 275 Fairfield Ave., soon lets contract building 1 story, 80 x 150 ft. brick and concrete, rein.-con. flooring, concrete foundation, on State St. About $200,000. C. W. Walker, Jr., 886 Main St., archt. Noted Apr. 1.

Conn., Enfield—Italian Roman Catholic Society, c/o A. Gannuscio, McCann Ave., Thompsonville, plans to build 1 story, brick and steel, here. About $100,000.

Conn., Goodyear (Killingly P. O.)—H. L. Reinhold, Jr., archt., 1513 Walnut St., Phila., rejected bids building 2 story, 90 x 150 ft., brick and concrete, for Killingly Twp. School Com. About $100,000. Work will be readvertised soon. Noted Apr. 22.

Conn., Hartford — School — South School Dist. plans to build 2 story, on Franklin Ave. About $200,000. J. H. Naylor, chn. Architect not selected.

Conn., New Haven—Association—Knights of Columbus, c/o W. J. McGinley, secy., 956 Chapel St., plan to build 3 story, 100 x 144 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Church and Wall Sts. About $250,000.

Conn., New London—Hospital—Lawrence Memorial Hospital, Ocean Ave., rejected bids building 4 story, 50 x 86 ft., brick and concrete addition, rein.-con. flooring, concrete foundation. About $100,000. Project temporarily postponed. Noted June 24.

Conn., West Hartford (Hartford P. O.) —High School—Bd. Educ. rejected bids Sept. 10, building 2 story, 200 x 210 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on South Main St. Plans will be revised and work readvertised. Noted Sept. 2.

N. Y., New York—Church and Community—Abyssinian Baptist Church, 249 West 40th St., having plans prepared by C. W. Bolton, archt., Witherspoon Bldg., Phila., for 1 and 3 story, 90 x 138 ft., brick and stone, on 138th St. and 7th Ave.

N. Y., New York—Theatre—B. W. Levitan, archt. and engr., 7 West 45th St., prepared plans for brick and stone, brick foundation, on 116th St. between 3rd and Lexington Aves. About $165,000. Owner's name withheld.

N. J., Convent Station—Hall—College of St. Elizabeth plans to build concrete and brick residence hall. About $350,000. E. A. McMurray, 207 Market St., Newark, archt.

N. J., Glassboro—Normal School—State Bd. Educ., Trenton, rejected bids Sept. 14 building 3 story, 125 x 301 ft., rein.-con., brick, steel and terra cotta, here. Noted July 29.

N. J., Jersey City—Bank—Trust Co. of New Jersey, 12 Hudson St., Hoboken, plans to build 8 story, granite, on Bergen and Sip Aves., here. About $1,500,000. J. H. Wells, 32 Nassau St., New York City, archt.

N. J., New Brunswick—Theatre—W. Reade, 112 West 34th St., New York City plans to build 1 story, 100 x 235 ft., brick, steel and terra cotta, on Livingston Ave., here. About $500,000. T. W. Lamp, 644 8th Ave., New York City, archt.

Pa., Carlisle — Bank — Carlisle Deposit Bank had plans prepared by Dennison & Hirons, archts. and engrs. 475 5th Ave., New York City, for brick and stone, brick foundation. About $150,000.

Pa., Harrisburg—Bank—East End Trust Co., 13th and Howard Sts., having plans prepared by Simon, Brittain & English, archts., Magee Bldg., Pittsburgh, for 2 story, 40 x 120 ft., brick and steel, rein.-con. flooring. About $150,000.

D. C., Washington—Exchange—Chesapeake & Potomac Telephone Co., 108 East Lexington Ave., Baltimore, plans to build brick and stone, concrete foundation, on 14th St., here. About $125,000. McKenzie, Voorhies & Gmelin, 1123 Bway., New York City, engrs.

Buildings (Continued)

Va., Richmond—Schools—Bd. Educ. plans to build school in Barton Heights, cost $150,000; Forrest Hill, $125,000; Highland Park, $100,000; G. Mason School, $100,000 and Armstrong School, $225,000.

O., Cleveland — Bank — Cleveland Trust Co., East 9th St. and Euclid Ave., having plans prepared by G. P. Post & Son, archts. and engrs., Schofield Bldg., for 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 55th St. and Woodland Ave. About $100,000. F. H. Goff, pres.

O., Cleveland—Church and School—St. Vensislaus Church, c/o J. Koudelka, 2666 East 35th St., plans to build 1 and 2 story, brick and steel, brick foundation, on Libbey Rd. About $100,000. Architect and engineer not selected.

O., Cleveland—Commercial and Clubhouse—Cleveland Democratic Bldg. Co., c/o J. McGinty, City Hall, plans to build 3 story, rein.-con., and brick, rein.-con. flooring, brick and concrete foundation. About $100,000. Architect not selected.

O., Columbus—Schools—Bd. Educ. having sketches made by D. Riebel & Sons, archts., New 1st. Nat. Bank Bldg., for two 2 story, 16 room, brick and concrete, 1 on Lincoln Park and other on Poplar Ave. About $265,000 each.

Ind., Mt. Vernon—Memorial Coliseum—City receives bids about Jan. 1, building 2 story, 130 x 138 ft., brick and stone. About $200,000. P. R. Werking, Richmond, archt.

Mich., Highland Park (Detroit P. O.)—Mercantile—J. F. Plembo plans to build 3 story, brick and steel, brick foundation, on Manchester Ave. About $100,000. H. J. Darling, Detroit, archt.

Mich., Lansing—Hotel—W. E. Boose having plans prepared by T. E. White, archt., City Natl. Bank Bldg., for 8 story, 190 x 230 ft., rein. con., brick and steel, rein.-con. flooring, concrete foundation.

Wis., De Pere—High School—Bd. Educ. plans to build Union High School, 4 story, brick, rein.-con. and steel, brick foundation. About $250,000. Architect not selected.

Wis., Fond du Lac — High School — Bd. Educ. soon lets contract building 3 story, 66 x 261 ft. senior and junior high school, also 140 x 200 ft. shop, brick, rein.-con. and steel, brick foundation. About $500,000. A. M. Hunter, secy. Childs & Smith, East Van Buren St., Chicago, archts.

Wis., Jefferson—Convent—St. Coletta Convent having plans prepared by E. Brielmaier & Sons Co., archts. and engrs., University Bldg., Milwaukee, for 3 story, rein.-con. and brick addition to convent and chapel, rein.-con. flooring, concrete foundation. About $260,000.

Wis., Madison—Lodge and Store—Beavers Reserve Fund Fraternity, 400 Gay Bldg., plans to build 7 story, 66 x 130 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Monona Ave. Architect and engineer not selected.

Wis., Manitowoc—Church and School—St. Pauls Church plans to build 75 x 210 ft., brick, rein.-con. and steel, brick foundation, on 8th St. About $150,000. M. Joeckels, pastor. Architect and engineer not selected.

Wis., Milwaukee—Store—E. Schuster & Co., Mitchell and 6th Aves., having preliminary plans prepared by Brust & Philipp, archts., 405 Bway., for 4 story, 70 x 120 ft., brick and concrete addition, rein.-con. flooring, concrete foundation. About $200,000.

Wis., Neillsville—Hotel—H. North having plans prepared for 3 story, brick, rein.-con. and steel, brick foundation, on Main St. About $100,000. Private plans.

Wis., Oshkosh — Hospital — Mercy Hospital, 185 Hazel St., having plans prepared by E. Brielmaier & Sons, archts. and engrs., University Bldg., Milwaukee, for 4 story addition and nurses' home, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $600,000.

Wis., Sheboygan — Office, etc. — Northern Furniture Co., South Water St. and New Jersey Ave., having preliminary plans prepared by W. C. Weeks, archt. and engr., 730 Ontario Ave., for 4 story, 60 x 250 ft. office and power house, brick, rein.-con. and steel, brick foundation, on South Water St. About $200,000.

Wis., West Bend — Grade Schools — Bd. Educ. plans to build two 3 story, 60 x 185 ft. brick, rein.-con. and steel, brick foundations, on Main St. About $100,000. Architect not selected.

Ia., Decorah — Library — Luther College rejected bids Aug. 30, building 2 story, 70 x 90 ft., brick and stone. About $100,000. Work will be readvertised. C. K. Preus, pres. Noted Aug. 26.

Minn., Minneapolis—Club House—Hennepin-Minneapolis Knights of Columbus No. 435, plan campaign this fall to raise $500,000 to build 3 story, rein.-con., brick and stone. About $500,000.

Minn., Minneapolis—Music—State Bd. Control, Capitol, St. Paul, opens bids about Sept. 27, building 3 story, 95 x 160 ft., rein.con., brick and stone, on State University campus, here. About $500,000. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt. Noted June 10.

Minn., Minneapolis—School—Bd. Educ. plans to build 2 story, on 50th St. and Minnehaha Parkway. About $200,000. E. H. Enger, 305 City Hall, archt.

S. D., Aberdeen—Y. M. C. A., c/o R. C. Bell, secy., had plans prepared for 3 story, rein.-con., brick and stone building, to include kitchen, cafeteria, etc. About $225,000.

S. D., Lead—Business—Hearst Mercantile Co. receives bids in October, building 3 story, 180 x 200 ft., rein.-con. and brick, rein.-con. flooring. About $225,000. H. W. J. Edbrook, Tabor Grand Bldg., Denver, Col., archt.

N. D., Rolla—School—Bd. Educ. rejected bids Aug. 21 building 3 story, 60 x 78 ft., brick, stone and tile. About $125,000. W. J. Edwards, 2d Natl. Bank Bldg., Grand Forks, archt. Noted Aug. 5.

Wyo., Casper—Fire House—City election Nov. 2, to vote on $110,000 bonds to build and equip fire house.

Mo., Jefferson City—Y. M. C. A. having plans prepared by F. K. Miller, archt., Jefferson City, for 3 story, 60 x 110 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $110,000.

Mo., St. Louis—Office—Olive and 9th Sts., Real Estate Co., Oddfellows Bldg., plans to alter office building on Olive and 9th Sts. About $125,000. Address I. T. Cook. Architect not selected.

Ark., Subiaco — Church — Benedictine Fathers having plans prepared by Ludwig & Dreisenner, archts., 1736 Waverly Pl., St. Louis, Mo., for 1 story, 52 x 224 ft. stone and marble. About $300,000.

Tex., Dallas—College—Metropolitan Business College, 1809-11 Commerce St., had plans prepared by Lang & Witchell, archts., Amer. Exch. Natl. Bank Bldg., for 4 story, 25 x 100 ft., brick, on Commerce and St. Paul Sts. About $100,000. A. Ragland, pres.

Tex., Dallas — Exposition — Rick Warehouse & Stores Co. opens bids about Nov. 15 building 10 story, 178 x 321 ft., rein.-con. and brick, rein.-con. flooring, at 2600 Elm St. About $1,000,000. Architect and engineer not selected. Noted Sept. 9.

Tex., Dallas — Office — Lang & Witchell, archts., Amer. Exch. Natl. Bank Bldg., open bids about Oct. 1 building 6 story, 100 x 100 ft., rein.-con. and brick, on Commerce and Prather Sts. here for J. T. Jones, 4935 Junius St., and J. H. Jones, Main and McKinney Aves., Houston. About $300,000. Noted April 22.

Tex., Dallas—Office—H. M. Green & Co., archts., North Texas Bldg., open bids about Jan. 1, remodeling and constructing 8 story, 50 x 200 ft., addition on present building, also constructing 12 story, 50 x 200 ft., new building, rein.-con. and brick, rein.-con. flooring, brick and concrete foundation, on Main, Commerce and Murphy Sts., for Security Natl. Bank, Commonwealth Bldg. About $1,000,000. Noted April 29.

Tex., Dallas—Theatre—A. H. Woods Enterprises, 236 West 42nd St., New York City, plan to build brick and stone, brick foundation, on Griffin St., here. About $500,000. W. Wellman, bldg. supt. Private plans.

Tex., Ft. Worth—Theatre—A. H. Woods Enterprises, 236 West 42nd St., New York City, plan to build brick and stone, brick foundation, here. About $500,000. W. Wellman, bldg. supt. Private plans.

Tex., Houston—Theatre—A. H. Woods Enterprises, 236 West 42nd St., New York City, plan to build brick and stone, brick foundation, here. About $500,000. W. Wellman, bldg. supt. Private plans.

Tex., San Antonio—Theatre—A. H. Woods Enterprises, 236 West 42nd St., New York City, plan to build brick and stone, brick foundation, here. About $500,000. W. Wellman, bldg. supt. Private plans.

Okla., Hartshorne — Temple — Masonic Lodge Assn. plans to build 3 story, 70 x 100 ft., brick concrete and steel, concrete foundation. About $100,000. Architect and engineer not selected.

Col., Denver—Cathedral—Scottish Rite Consistory No. 2, 16th and Grant Sts., receives bids about Jan. 1, building 3 story, 115 x 170 ft. rein.-con., stone and steel, rein.-con. flooring, concrete foundation. About $500,000. Gardner & Parry, Guardian Trust Bldg., engrs.

Col., Denver—Sanatorium—J. H. Tilden, 837 Sherman S. St., having plans prepared by H. W. J. Edbrooke, archt., Tabor Grand Bldg., for 2 story, concrete, brick and steel. About $175,000.

Que., Montreal—Office—Furness-Withey Co., 34 Whitehall St., New York, having plans prepared by W. B. Chambers, archt. and engr., 111 East 40th St., New York City, for altering 5 story, brick, steel and stone, here. About $150,000.

B. C., Kerrisdale — School — Point Grey School Bd. opens bids about Sept. 30 building 3 story, 8 room, rein.-con., brick and tile, concrete foundation. About $125,000. Twizell, Birds & Twizell, 837 Hastings St., W., Vancouver, archts.

BIDS DESIRED

Mass., Boston—Office—Coolidge & Shattuck, archts., 122 Ames Bldg., receiving bids constructing 12 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Beacon and Somerset Sts. About $500,000. Owner's name withheld.

Mass., Malden (Boston P. O.)—Store and Office—F. H. Gowing, archt. 18 Tremont St. Boston, receiving bids building 3 story, 75 x 100 ft. brick and steel, rein.-con. flooring, concrete foundation, on Main St. About $125,000. Owners name withheld. Noted Aug. 26.

Mass., Peabody—High School—Until Oct. 1, by School Comn., building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Central St. Cost between $450,000 and $500,000. F. I. Cooper Corp., 33 Cornhill St., Boston, archts.

R. I., Providence—Laboratory—Day & Klauder, archts., 925 Chestnut St., Phila., receiving bids building 3 story, 50 x 200 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on campus, for Brown University, Prospect St. About $250,000. Noted Aug. 26.

Conn., Montville — Housing — Until Sept. 25, by Lockwood-Green, engrs. and archts., 101 Park Ave., New York City, building several houses for industrial development, brick and concrete, rein.-con. flooring, concrete foundations. About $150,000.

Conn., New Britain—School—Until Sept. 30 (change of date) by Bd. Educ., building 2 story, 60 x 240 ft. with 56 x 70 ft. ell, brick and steel, rein.-con. flooring, concrete foundation, on Tremont St. About $350,000. D. K. Perry, 27 West Main St., archt. Noted Sept. 9.

Conn., Norwich—Church—St. Mary's Roman Catholic Church receving bids building 1 story, 60 x 130 ft., brick, steel and stone, concrete foundation, on Central Av. About $100,000. A. A. Keefe, 70 Central Ave., pastor. O'Connell & Shaw, 18 Boylston St., Boston, archts. Noted Sept. 16.

Conn., Thompsonville — School — School Dist. receiving bids building addition to A. D. Higgins School, 2 story, 8 room, concrete, brick and steel, rein.-con. flooring, concrete foundation, on North Main St. About $130,000. I. A. Allen, Jr., Inc., 904 Main St., Hartford, archts. Noted July 29.

Pa., Coatesville—Theatre—Until Sept. 24, by R. A. Kerns, archt., 10 South 18th St., Phila., building 3 story, 45 x 100 ft., brick, on Main St., for Logges Bros., 258 East Main St. Noted Aug. 12.

Ind., Evansville — Theatre — Arcadia Palace Amusement Co. receiving bids building 2 story, 86 x 140 ft., brick and steel, on Locust St. About $200,000. Fowler, Capelle & Troutman, Amer. Trust Bldg., archts.

Ind., Indianapolis — Manuel Training School—Until Oct. 1, by Bd. School Comrs., building 2 and 3 story, 250 x 400 ft., rein.-con., brick and steel, on East Michigan St. About $225,000. D. A. Bohlen & Son, Majestic Bldg., archts. Snider & Rotz, 703 Merchants' Bank Bldg., engrs. Noted Sept. 16.

Mich., Muskegon — High School — Until Oct. 1, by H. H. Turner, archt., 923 Michigan Trust Bldg., Grand Rapids, constructing Bunker Junior High School, 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Denmark Ave., here, for Bd. Educ. About $250,000.

Wis., Manitowoc—Church—Juul & Smith, archts. and engrs., Imig Bldg., Sheboygan, receiving bids building 2 story, 48 x 126 ft., rein.-con., brick and stone, concrete foundation, on 24th St. and Meadow Lane, for Presbyterian Society, 510 North 8th St. Noted June 24.

Kan., McLouth—High School—Bd. Educ. receiving bids building 2 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $110,000. W. H. Saylor & Co., Mutual Bldg., Kansas City, Mo., archts. Noted Sept. 9.

Kan., Topeka—Exchange—Southwestern Bell Telephone Co., 812-14 Jackson St., receiving bids building 2 story, 60 x 106 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $140,000.

Buildings (Continued)

J. R. Timlin, 688 Boatmans' Bldg., St. Louis, Mo., archts. Noted July 8.

N. D., Hurdsfield—School—Until Sept. 28 by Bd. Educ., building 2 story, 68 x 89 ft. rein.-con. and brick high and grade school. About $100,000. W. D. Gillespie, 64½ Bway., Fargo, archt.

Tex., Dallas — High School — Until Nov. 15, by School Bd., building 3 story, brick and concrete, on Haskell and McKinney Sts. Former bids rejected. About $600,000. W. B. Ittner, Bd. Educ. Bldg., St. Louis, Mo., archt. Noted May 6.

Que., Montreal—Church—Until Oct. 1, by G. Peck, minister, Presbyterian Synod of Montreal, Presbyterian College, building 50 x 75 ft., brick and steel, on Ryde St. About $100,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Yarmouthville** — Church — Sacred Heart Roman Catholic Society, c/o J. D. Quinn, pastor, will build 1 story, 40 x 110 ft. brick, steel and stone, rein.-con. flooring, concrete foundation. Work will be done by day labor.

★**Mass., Beverly** — Theatre — Ware Theatre, Inc., Natl. Bank Bldg., let contract building 1 and 2 story, 65 x 130 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation on Cabot St., to J. Bowen Co., 184 Dudley St., Roxbury. About $125,000.

Mass., South Boston (Boston P. O.)—Headhouse—Park and Recreation Dept., Boston, received lowest bid building 1 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at Marine Park, from J. Bowen & Co., 184 Dudley St., Roxbury, Mass., $133,000.

★**Conn., Bridgeport**—Theatre—S. Telep, 1078 Ogden St., let contract building 2 story, 50 x 150 ft., brick and steel, rein.-con. flooring, concrete foundation, on Boston Ave., to W. F. Chatlos, Broad St., Stratford. About $100,000.

★**Conn., Hartford**—Business—Berenson & Moses, archts., 1026 Main St., let contract to S. C. Poriss & Co., 54 Church St., building 3 story, 50 x 145 ft., brick and steel, rein.-con. flooring, concrete foundation, on Main St., for C. Leonard, 599 Main St. Noted Sept. 9.

★**Conn., Union City** (Naugatuck P. O.)—Eastern Malleable Iron Co. let contract building rein.-con., brick and steel addition to plant, rein.-con. flooring, concrete foundation, to F. A. Ley Co., Inc., 499 Main St., Springfield, Mass. About $50,000.

Conn., Waterbury—Hospital—City received lowest bid Sept. 15, building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Watertown Ave., from Tracy Bros. Co., 52 Benedict St., $144,642. Noted Aug. 26.

N. Y., Brooklyn—Hospital—Dept. Pub. Welfare, Municipal Bldg., New York City, received bids Sept. 20, for general contract building hospital on New Cumberland St., from 174th St. Constr. Co., New York City, $663,000; A. W. King, 81 East 125th St., New York City, $675,978; Emerson Bldg. Co., 103 Park Ave., New York City, $713,000. Noted Aug. 26.

★**N. Y., Brooklyn** — Theatre — Midwood Theatre, Inc., 261 Bway., New York City, will build brick and stone, brick foundation, on Ave. J. About $150,000. Work will be done by day labor.

★**N. Y., Freehold**—Bank—Freehold Trust Co., 3 Main St., let contract altering 3 story, brick and stone, brick foundation, to F. T. Ley, 19 West 44th St., New York City. About $100,000.

★**N. Y., Morris Park** (Jamaica P. O.)—Bd. Educ., 500 Park Ave., New York City, let general contract building P. S. 57, Curtis Ave., to P. Cleary, 115 Marion St., Brooklyn, $318,700. Noted Sept. 16.

★**N. Y., New York**—Bank—Chelsea Exchange Bank, 48th St. and 7th Ave., let contract altering brick and stone, to G. A. Fuller Co., 175 5th Ave. About $100,000.

★**N. Y., New York**—Bank, Office, etc.—S. W. Straus & Co., 150 Bway., let contract building 9 story, 100 x 180 ft., brick, steel and stone, concrete foundation, on 46th St. and 5th Ave., to Thompson-Starrett, 49 Wall St. About $4,000,000. Noted June 3.

★**N. Y., New York**—Club—Sailors Snug Harbor Trustees, 262 Greene St., let contract converting 4 story building into clubhouse, brick, steel and stone, at 4 East 9th St., to Cauldwell-Wingate Co., 381 4th Ave. About $100,000.

★**N. Y., New York**—Exchange—New York Telephone Co., 15 Dey St., let contract building 4 story, 80 x 192 ft., brick, steel and stone, concrete foundation, on West 73rd St., to Tidewater Bldg. Co., 16 East 33rd St. About $500,000. Noted Aug. 12.

★**N. Y., New York**—Office—Union Sulphur Co., 17 Battery Pl., will build 14 story, 30 x 89 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Rector and West Sts. About $400,000. Work will be done by day labor under supervision of H. O. Chapman, 334 5th Ave., archt. Noted Aug. 26.

★**N. J., Hoboken**—School—Bd. Educ. let general contract building P. S. 2 to W. H. and F. W. Cane, Inc., Baldwin Ave., Jersey City, $1,599,900; plumbing and gas fitting, to J. Marnell, 207 Washington St., $51,126; heating and ventilating, to J. H. Cooney, 210 North 4th St., Harrison, $112,494; electric work, to W. Coleman, $20,500. Noted May 13.

★**N. J., Jersey City** — Theatre — Hespe Realty Co., Central Ave., will build brick and stone, brick foundation, 2,000 seating capacity. About $250,000. Work will be done by day labor. Noted Sept. 16.

★**Pa., Altoona**—Bank—Union Bank, 1103 8th Ave., let contract building 4 story, 50 x 120 ft., brick and stone, brick foundation, on 8th Ave. and 12th St., to G. Orr, Altoona. About $190,000. Noted April 22.

★**Pa., McKeesport**—School—Bd. Educ. let contract building Centennial School, 2 story, 80 x 222 ft., brick and steel, rein.-con. flooring, on Beaver Ave. and Union St., to J. G. Fullman Co., G. E. Trust Bldg., Pittsburgh. About $325,000. Noted Aug. 19.

★**Pa., Pittsburgh**—Office, etc.—Pittsburgh News Co., 300 Ferry St., let contract building 10 story, 27 x 86 ft., brick and steel office and warehouse, rein.-con. flooring, on 3rd Ave. and Ferry St., to H. Miller Sons Co., May Bldg. About $200,000.

★**Pa., Pittsburgh**—Sales and Service—E. P. Mellon, archt., Vanderbilt Bldg., New York City, let contract building 2 story, 80 x 114 ft., rein.-con. and steel, to Mellon-Stuart Co., Oliver Bldg. About $100,000. Owners name withheld. Noted Sept. 2.

★**Pa., Pittsburgh**—Theatre—All Nations Arcade Co., c/o G. H. Schwan, archt., Peoples Bank Bldg., will build 3 story, 82 x 120 ft., at 1915-21 Carson St. About $100,000. Work will be done by day labor. Noted Aug. 5.

★**Md., Baltimore**—Polytechnic Institute—Bd. awards let contract building 3 story, 75 x 200 ft. concrete and brick addition, concrete foundation, on Calvert St. and North Ave., to C. L. Stockhausen, Gay and Water Sts., $109,493. Noted July 29.

★**Md., Lansdowne** — School — Baltimore Co. School Comrs., Towson, let contract building 3 story, 45 x 119 ft., brick, steel, rein.-steel and terra cotta, concrete foundation, here, to Chew & Osborne, 212 Clay St., Baltimore. About $100,000. Noted April 22.

★**D. C., Washington** — Hospital — Dist. Comrs., Dist. Bldg., let contract constructing 2 story, 300 x 400 ft. psychopathic ward of Gallinger Hospital, brick and stone, on Reservation 13, Massachusetts Ave., to G. E. Wyne, Home Life Bldg., $788,200. Noted Aug. 19.

★**Va., Norfolk**—Office—C. N. Whitehurst & Co., 225 Plume St., let contract building 12 story, brick, steel and stone, concrete foundation, on York and Bush Sts., to E. W. Minter, 115 Bway., New York City. About $750,000. Noted May 20.

★**O., Cleveland**—Police Station—City let contract building 2 story, 50 x 80 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 131st St. and Miles Ave., to W. Moore Co., 1278 West 4th St. About $100,000.

★**O., Lima**—Theatre—R. MacIntosh, 532 Chestnut St., Ashland, will build Strand Theatre, 2 story, 50 x 150 ft., brick and concrete, here. About $100,000. Work will be done by day labor.

★**Ind., Ft. Wayne**—Hospital and Nurses' Home—Allen Co. let general contract building two 3 story, 42 x 87 ft. wings to Tuberculosis Hospital, also 3 story, 26 x 39 ft. nurses' home, brick, 8 mi. north of here, to Indiana Eng. & Contg. Co., Central Bldg. About $119,400. Noted July 29.

★**Minn., Minneapolis** — Church — First Methodist Episcopal Church let contract building 2 story, 66 x 105 ft. rein.-con., brick and tile, on 12th Ave. S. and 4th St., to Beck Eng. Co., 1137 Plymouth Bldg. About $106,000. Noted July 15.

★**Minn., Montevideo**—School—Bd. Educ. let contract building 2 story, rein.-con. and brick, to Victorson Constr. Co., 423 Andrews Exchange Bldg., Minneapolis, $89,774; heating, plumbing, etc., to Western Heating Co., 13 East 36th St., Minneapolis, $38,950. Noted Aug. 26.

★**Kan., Topeka**—Business—W. M. Crosby, 613-17 Crosby Ave., let contract remodeling brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to F. M. Spencer & Son, 215 Mulvane Bldg. About $1[illegible]000; cost plus percentage basis.

★**Kan., Topeka**—Office—I. O. O. F. L[illegible] let contract building 3 story, 50 x 15[illegible] ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, to F. M. Spencer & Son, 215 Mulvane Bldg. About $1[illegible]000; cost plus percentage basis.

★**Neb., Kearney**—Hospital—Roman Catholic Congregation let contract building 4 story, 44 x 157 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to J. Hansen, 803 Ave. F, Council Bluffs. About $250,000; cost plus percentage basis. Noted May 6.

★**Neb., Kearney**—School—Bd. Educ. let contract building 2 story, 70 x 110 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to W. Knutzen & Son, Kearney, $109,987.

★**Wyo., Rock Springs**—Theatre—H. W. J. Edebrook, archt., Opera House Bldg., Denver, let contract to J. Graham, Rock Springs, building 57 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, for Rialto Amusement Co., Rock Springs. About $150,000. Noted Aug. 12.

★**Mo., St. Louis**—Office—Central States Life Insurance Co., Central Natl. Bank Bldg., let contract building 2 story, 90 x 145 ft., rein.-con. and brick, on Washington and Compton Aves., to Dickie Constr. Co., Syndicate Trust Bldg. About $149,800. Noted Aug. 26.

★**N. M., Gallup** — Hospital — St. Marys Hospital let contract building 4 story, 48 x 115 ft., brick and stone, to Wegs & Tompkins, 324 North 3rd St., Albuquerque. About $150,000.

★**Ont., Peterboro** — Theatre — Famous Players Film Corp., Temple Bldg., let contract building 1 story rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to N. McLeod, Kent Bldg., Toronto. About $150,000; cost plus percentage basis.

Federal Government Work

PROPOSED WORK

S. C., Paris Island—Improving Hospitals—Spec 4262— Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids received Sept. 8, improving, at Marine Barracks, here. Noted Sept. 16.

Ore., Empire—Spec. 4302—Double Radio Barracks—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Cal., San Diego—Dredging—N. Smith, pub. wks. officer, U. S. Navy, authorized to expend $940,000 to dredge and fill in along sites of marine brigade post and naval training station, on San Diego Bay.

BIDS DESIRED

Mass., Chelsea—Lighting System—Spec. 4281—Until Oct. 6, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building at Naval Station, here. Noted Sept. 16.

Pa., Phila.—Until Sept. 28, by H. J. Lumsden, Q.M.C., officer in charge of construction, Frankford Arsenal, building 2 radial brick chimneys; advertised in this issue.

Va., Norfolk—Dredging—Until Oct. 22, by U. S. Engineers Office, Custom House, dredging in Appomattox River; advertised in this issue.

Ga., Columbus—Buildings—Until Sept. 27, by Constr. Div., War Dept., office of Chief of 1st Dist. Constr. Serv., Quartermasters Corps., Room 2706, War Trade Bldg., 20th and B Sts., Wash., D. C., constructing 197 brick, frame and stucco buildings at Camp Bennings, here. About $1,000,000.

Fla., Jacksonville—Scotch Marine Boilers, etc.—Until Oct. 15, at U. S. Engineer Office, building and installing 4 Scotch marine boilers, foundations, uptakes, smoke stacks and oil bunkers; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Bar Harbor**—Coal Bins—Spec. 4283—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Naval Radio Sta., Otter Cliff, here, to A. E. Lawrence Co., 116 Cottage Point, $4,614.

★**Conn., New London**—Road, Walks, etc.—Spec. 4249—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building roads, walks, etc., at Sub-Marine Base, here, to F. B. Miller & Co., Norwich, $48,132 (100 days). Noted Sept. 9.

D. C., Wash.—Engines—Secretary of Navy received only bid Sept. 15, building six 2,250 and six 950 brake heavy oil internal combustion engines operating on Diesel principal, from Busch-Sulzer Bros. Diesel Engine Co., 2nd and Utah Sts., St. Louis, Mo., (Class 1) $3,128,000, f.o.b. St. Louis.

★**S. C., Columbia** — Post Office — Treas. Dept., Wash., D. C., let contract completing

Federal Government Work (Continued)

post office here to Northeastern Constr. Co., 101 Park Ave., New York City, $144,-210. Noted Sept. 16.

Tenn., Nashville — Barges—U. S. Dist. Engineer, 4th and 1st Natl. Bank Bldg., received bids Sept. 13, building 2 steel barges, from C. Ward Eng. Co., South Side, Charleston, W. Va., $16,600 with cargo box brackets and $16,400 without brackets. Noted Aug. 26.

Wash., Puget Sound—Double Radio Quarters Spec. 4290—Bureau Yards & Docks, Navy Dept., Wash, D. C., received bids building, here, from W. T. Butler, $6 660, (90 days); Miller Bros., $8,444; B. Ward, $8,444; all contractors of Puget Sound. Noted Sept. 16.

★**Wash., Puget Sound**—Metal Work—Spec. 4247-A—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract for sheet metal work on extension to Bldg. 175, to Independent Sheet Metal Co., 1512 Western Ave., Seattle, $2,719, (20 days).

★**Wash., Puget Sound**—Roofing—Spec. 4247-B—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract for built-up roofing on extension to Bldg. 178 (exclusive of all metal work), to H. W. Johns-Mansville Co., 3rd and Stewart Sts., Seattle, $2,892 (15 days).

★**Ore., Astoria**—Remodeling Post Office—Treas. Dept., Wash., D. C., let contract remodeling, here, to J. L. Burgess, Astoria, $11,800. Noted Sept. 9.

Ore., Marshfield—Radio Quarters and Post Office—Spec. 4289—Pub. Wks. Office, Puget Sound, Wash., received bids building double radio quarters and remodeling post office, here, from P. M. Tully, Puget Sound, $8,392 (90 days); J. M. Wright & Son, $9 144 (90 days); J. S. Lorsing & Son $9,167 (60 days). Noted Sept. 16.

Alaska, Kechikan — Dormitory — Spec. 4279—Pub. Wks., Puget Sound, Wash., received only bid building, here, from Brown & Soles, Kechikan, $10,510 (75 days).

Miscellaneous

PROPOSED WORK

Monument—Exeter, N. H. — Town plans to build soldier monument, stone. About $25,000. Address War Memorial Com.

Baseball Park — Hartford, Conn. — J. H. Clarkin, 284 Asylum St., will improve 600 x 600 ft. site for new baseball park for Hartford League Baseball Team. Plans include wooden fence, wooden bleachers and rein.-con. grandstand. About $60,000.

Coal Handling Equipment, etc. — Baltimore, Md.—Western Maryland Ry. plans to purchase coal handling equipment also 20 Mikado freight locomotives. About $400,-000.

Electric Transmission Line — Warsaw, Ind.—Electrical Transmission Co. of Northern Indiana filed a petition with the Pub. Serv. Comn. for authority to build electric transmission line from here to Goshen, a distance of 25 mi. About $50,000.

Playgrounds—Manitowoc, Wis.—City had plans and specifications made for 2 playgrounds in 5th and 7th Wards, to include grading, building wading pools, tennis courts, shrubbery, etc. J. C. Smith, Milwaukee, archt.

Wireless Station—Toronto, Ont.—Marconi Wireless Telegraph Co., 93 King St. E., purchased 23 acres north of here, and plans to build wireless station. About $50,000.

BIDS DESIRED

Fire Alarm System—Central Islip, N. Y.—Until Sept. 29, by State Hospital Comn., Capitol, Albany, building fire alarm system in south group. E. S. Elwood, secy.; advertised in this issue.

Asphalt Plant—New York, N. Y.—Until Sept. 29, by H. Bruckner, pres. Bronx Boro., furnishing labor and material for erection and completion of (a) asphalt plant on east side of Edgewater Rd. at point 228 ft. south of Garrison Ave, (b) steel stiff derrick for above (c) bulkhead to be used in connection with above.

Ferry—New York, N. Y.—Until Oct. 11, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., constructing steel screw ferryboat.

Trucks—New York, N. Y.—Until Sept. 27, by Bd. Purchase, Room 526, Municipal Bldg., furnishing and delivering gasoline motor driven trucks to Dept. Plant & Structures.

Tractors, Graders and Road Drags—Jacksonville, Fla.—Until Oct. 1 by Comrs. Duval Co., furnishing one 10 ton tractor, two 5 ton tractors, one 12 ft. grader and two road drags. D. C. Brown, chn.

Pipe—New Orleans, La.—Until Sept. 30, by F. S. Shields, secy. Sewerage and Water Bd., Room 401, Sewerage and Water Bd. Bldg., furnishing 22,000 ft. 36-48 in. c.i. pipe and specials, and 1,010 ton 4-20 in. c.i. pipe and specials; advertised in this issue.

HIGHWAY—OREGON

Bids were received by State Highway Comn., Salem, Aug. 24, for grading and surfacing Haines-North Powder Section of Old Oregon Trail, 7.86 mi. long, Baker Co., from (A) Oxman & Harrington, Baker, (awarded contract); (B) Security Constr. Co., La Grande; (C) Warren Constr. Co., Journal Bldg., Portland. The unit bids were as follows.

	A	B	C
Clearing and grubbing (60 ft. railway), lump sum	$300 00	$250 00	$200 00
63,000 cu.yd. common excavation	50	60	57
3,500 cu.yd. st. overhaul	05	05	05
880 lin.ft. 12-in. plain concrete pipe	2 00	1 90	2 20
290 lin.ft. 18-in. reinforced concrete pipe	3 00	2 95	3 50
380 lin.ft. 24-in. reinforced concrete pipe	4 00	4 10	5 00
120 lin.ft. 36-in. reinforced concrete pipe	7 00	5 75	8 00
880 lin.ft. 12-in. corrugated galvanized iron pipe	2 25	2 83	2 00
290 lin.ft. 18-in. corrugated galvanized iron pipe	3 75	3 98	3 50
380 lin.ft. 24-in. corrugated galvanized iron pipe	5 00	5 45	5 00
120 lin.ft. 36-in. corrugated galvanized iron pipe	10 00	9 35	8 50
500 lin.ft. 6-in. porous drain tile	40	30	45
130 cu.yd., class "A" concrete	32 00	30 00	35 00
80 cu.yd. class "C" concrete	28 00	25 00	35 00
11,000 lb. metal reinforcement	10	12	12
15M. ft.b.m. lumber and timber in place	70 00	75 00	75 00
30 cu.yd. gravel backfill for drain tile	3 00	3 75	3 25
17,300 cu.yd. crushed gravel surfacing	2 95	3 15	3 25
900 cu.yd. clay or other earth filler	1 00	1 25	00
Extended tota's (concrete pipe)	$99,340	$108,728	$111,089
Extended totals (corrugated galvanized iron pipe)	100,518	110,790	110,973

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Granite Gateway—Cambridge, Mass.**—R. H. Doone, archt., 75 Newbury St., Boston, let contract to L. D. Willicut & Sons Co., 146 Summer St., Boston, building large granite gateway, also 1 story, 25 x 45 ft. brick and stone rest house, on Mt. Auburn St., for Mt. Auburn Cemetery, 199 Washington St., Boston. About $25,000. Noted Sept. 9.

★**Wall—Ansonia, Conn.**—Amer. Brass Co., 58 Liberty St., let contract building rein.-con. retaining wall at plant, to Sperry Eng. Co., 82 Church St., New Haven. About $25,000.

★**Baseball Park—Hartford, Conn.**—J. H. Clarkin, 284 Asylum St., let contract improving 600 x 600 ft. site on Hanmer St. for new baseball park for Hartford League Baseball Team, including concrete grandstand, bleachers, etc., to T. Stafford & Son, 161 New Britain Ave. About $40,000.

Plant—New York, N. Y.—H. H. Curran, pres. Manhattan Boro., received only bid Sept. 15 building plant for crushing, melting and mixing old asphaltic material and altering existing elevator at plant on 90th St., from P. T. Cox, 154 Nassau St., $47,-867. Noted Sept. 9.

Shafts — New York, N. Y. — New York State Bridge & Tunnel Comn. and New Jersey Interstate Bridge & Tunnel Comn., Room 616, Hall of Records, Manhattan Boro., received bids Sept. 21 building Canal and Spring Sts. shafts, from T. B. Bryson, 52 Vanderbilt Ave., $650,000; Booth & Flynn, Ltd., 17 Battery Pl., $695,000; P. M. McGovern, 50 East 42d St., $941,000. Noted Sept. 2.

★**Wall—Newark, N. J.**—Mt. Pleasant Cemetery, 375 Belleville Ave., let contract building 1,500 ft. wall, 12 ft. high involving 2,300 cu.yd. concrete, to A. J. Milmoe, 83 Littleton Ave., $55,200. Noted Sept. 9.

★**Foundation—Phila, Pa.**—City let contract building foundation for central library, on 19th and 20th Sts., to J. Gill & Son, Citizens Bldg., Cleveland, O. About $425,000. Noted Jan. 8 under "Buildings."

Foundation—Toledo, O.—Until Oct. 4, by Clerk Bd. Educ., furnishing labor and material for erecting and completing excavation and rough concrete work, including 1st floor slab, of the South Side High School, on Daniels St. and Western Ave. E. M. Gee, dir. and archt. Noted Sept. 2 under "Buildings."

Wire and Cable—Detroit, Mich.—Until Sept. 27, by Comn. Purchases & Supplies, Municipal Court Bldg., furnishing 158,400 ft. copper trolley wire for new lines, also 80,000 ft. 7 strand cable to hold wires. M. H. Markham, 415 City Hall, engr.

Concrete Mixers—Watertown, Wis.—W. J. Murray, c/o Waukesha Hotel Co., receiving bids furnishing several large and small concrete mixers and other equipment for cement and concrete.

Rock Crusher Elevator and Conveyor—Ft. Scott, Kan.—J. T. Dalton & Son, receiving bids for rock crushed elevator and conveyor. A. McBride, genl. supt.

Truck—Ft. Scott, Kan. — C. A. Simons receiving bids for new truck for hauling sand.

Truck—Larned, Kan.—McCoy & Taylor receiving bids for truck for heavy hauling.

Tunnel Lining—Oregon—See "Streets and Roads."

★**Dock—New Orleans, La.**—Bd. Port Comrs. of New Orleans, let contract erecting, painting and doing all steel work required on Poydras St. shed, end extension, of New Orleans Dock, involving 240 ton steel, to Pensacola Ship Bldg. Co., Blount Bldg., Pensacola, Fla., $39,600; side extension, involving 110 ton steel, to Alexander & Julian, 1004 Webster St., $22,320. Noted Aug 26 and Aug. 19 under "Industrial Works."

★**Sanitary Equipment — Columbus, O.** — Bd. Educ. let contract furnishing sanitary equipment for schools on Chicago, Franklinton, Spring and Highwood Sts., 1st. Livingston, Michigan, Southwood, Eastwood and Bellows Ave., also South High School, to Huffman & Wolfe, 609 North High St. About $124,900. Noted Aug. 19.

★**Conduits—Detroit, Mich.**—Fire Comn., West Larned St., let contract furnishing labor and material building 17,566 ft. 3-16 duct conduits, to R. A. Mercier, 746 Hudson Ave., $120,821. Noted Sept. 9.

★**Standards, Transformers, Switchboards, etc.—Owosso, Mich.**—City let contract furnishing labor and material installing 178 moonlight standards, 23,000 ft. 5,000-volt armored cable transformers, switchboards, etc., on Main, Washington, Ball and Exchange Sts., to Kelly Constr. Co., 210 Bridge St., Chippewa Falls, Wis., $32,316.

Pipe—Cedarburg, Wis.—City received only bid furnishing 800 ton 4-10 in. Class "B" c.i. pipe and 1,000 ft. 4-12 in. wood stave pipe, from Amer. Cast Iron Pipe Co., 712 Plymouth Bldg., Minneapolis, Minn., $51,638.

★**Cement and Bricks—Kohler, Wis.**—See "Industrial Works."

★**Lighting System—Mayville, Wis.**—City let contract furnishing and erecting ornamental lighting system, to Kelley Constr. Co., 210 Bridge St., Chippewa Falls. About $25,000.

★**Dike—St. Louis, Mo.**—City let contract building stone and timber dike at Low Serv. Pumping Sta. Chain of Rocks, involving 10,500 cu.yd. stone, 125 000 ft. ½ in. steel cable, etc., to Kansas City Bridge Co., 510 Orear-Leslie Bldg., Kansas City, Mo., $73,889. Noted Aug. 19.

Shed—Seattle, Wash.—Seattle Port Comn. received bids Sept. 4 building "west" transit shed, to duplicate present "east" structure on Pier "B," 500 ft. long, 120 ft. wide, (a) gal. armco iron, (b) Keystone copper steel, (c) boiler room and chimney, from Sherer & Carlson, Seattle, (a) $123,740, (b) $122,-240, (c) $1,642; J. A. McEachern & Co., Colman Bldg., (a) $125,200, (b) $124,165, (c) $1,000; Stewart Constr. Co., Amer. Bank Bldg., (a) $125,200, (b) $124,165, (c) $1,150.

★**Dam, Montreal, Que.**—Quebec Streams Comn., Parliament Bldg., 59 Notre Dame St. E., let contract building storage dam on Savane River, to Laurentian Power Co., Beaupre. About $200,000. Noted Aug. 5.

★**Walls, etc.—Montreal, Que.**—Montreal Water Bd. let contracts building protection work on retaining walls and repairing south wall on Montreal aqueduct, to G. L. Campbell, $125,780; building south gravity wall, bridges and abutments at Letour and Knot Bridges over Montreal aqueduct, to Doheney, Quinlan & Robertson, 50 Notre Dame St. W., $195,650.

★**Dock—Ft. William, Ont.**—Canadian Pacific Ry., Windsor St., Montreal, Que., let contract building extension to coal dock on McKellar River, concrete apron on pile foundation, to M. H. Braden, Ft. William. About $150,000; cost plus percentage basis.

OFFICIAL PROPOSALS

Bids: Oct. 13.

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORK
Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Wednesday, October 13th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, and Chapters 402 and 698 of the Laws of 1920, as follows:

—1—

TERMINAL CONTRACT No. 79

For driving foundation piles for the proposed grain elevator, for constructing a bulkhead wall along Henry Street slip, and for dredging the Henry Street Basin at Gowanus Bay, New York City.

Contract plans, sheets 1 to 5, inclusive.

—2—

TERMINAL CONTRACT No. 80

For constructing concrete foundation piers for the proposed grain elevator on the Barge canal terminal pier at Oswego.

Contract plans, sheets 1 and 2.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., at the canal office, Spaulding's Exchange, Buffalo, N. Y., and at the office of the Superintendent of Public Works, Terminal Warehouse, Pier 6, East River, New York City.

Copies of detailed plans or drawing may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

Theright is reesrved to reject all proposals and readvertise and award the contract in the regular manner if in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.
September 10th, 1920.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Sept. 29.

Fire Alarm System

Central Islip, N. Y.

Sealed proposals for Fire Alarm System, South Group, Central Islip State Hospital, Central Islip, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until three o'clock P.M., on Wednesday, September 29, 1920, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a Certified Check in the su mof five per cent (5%) of the amount of the proposal. The Contractor to whom the award is made will be required to furnish surey company bond in the sum of fifty per cent (50%) of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of Specification No. 3609. The right is reserved to reject any or all bids. Drawings and Specifications and blank forms of proposal may be consulted at the Central Islip State Hospital, Central Islip, N. Y.; at the New York Office of the Department of Architecture, Capitol, Albany, N. Y. Drawings and Specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

Dated September 8, 1920.

E. S. ELWOOD,
Secretary, State Hospital Commission.

Bids: Oct. 2.

Drainage

Lamar, Col.

Until Oct. 2, 1920. Bids received by American Beet Sugar Company, Rocky Ford, Colorado. Dredging open ditch in Powers County, approximately 15,900 ft. long. Approximately 104,610 cu.yds. of excavation.

Bids: Oct. 18.

Lock Construction

THE ILLINOIS WATERWAY
CONTRACT NO. 1
Chicago, Ill.

1. Sealed proposals for the construction of Marseilles Lock, located near Bells Island in the Illinois River, four miles above Ottawa, and two miles below Marseilles, La Salle County, Illinois, will be received at the Office of the Director of the Department of Public Works and Buildings, Division of Waterways, Room 1404, 25 East Jackson Boulevard, Chicago, Illinois, until twelve (12) o'clock noon, Central Standard Time, of the eighteenth day of October, 1920, and then publicly opened and read.

2. Copies of the plans, specifications, proposal blank, form of bond and contract may be obtained by prospective bidders at the Office of the Department, Room 1404, 25 East Jackson Boulevard, Chicago, Illinois, upon depositing a check for ten dollars ($10), made payable to the Director of the Department of Public Works and Buildings, which sum will be returned within ten (10) days after the contract has been awarded if the plans are returned in good condition within that time.

3. Each proposal shall be accompanied by a certified check or draft drawn on some responsible bank doing business in the City of Chicago, and made payable to the order of the Director of the Department of Public Works and Buildings, for five (5) per cent of the amount of the proposal. In lieu of a certified check or draft, the proposal may be accompanied by a bond executed in the form prescribed by the Department of Public Works and Buildings and with a surety company approved by the Department in the penal sum of ten (10) per cent of the amount of the proposal.

4. The Department of Public Works and Buildings reserves the right to reject any or all bids. The contract, if let, will be awarded to the lowest responsible bidder.

FRANK I. BENNETT,
Director, Department of Public Works and Buildings.
WILLIAM L. SACKETT,
Superintendent of Waterways.
M. G. BARNES,
Chief Engineer,
Division of Waterways.
Sept. 13, 1920.

Bids: Oct. 6.

Miscellaneous Work

Binghamton, N. Y.

Sealed proposals for Laundry Equipment, Renewals of Electric Wiring, Extension of Electric Lines, Etc., and Electric Elevator — Laundry Building, Binghamton State Hospital, Binghamton, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until three o'clock p.m. on Wednesday, October 6, 1920, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a Certified Check in the sum of five per cent (5%) of the amount of the proposal.

The Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent (50%) of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of Specification Nos. 3573, 3596, and 3608. The right is reserved to reject any or all bids. Drawings and Specifications and blank forms of proposal may be consulted at the Binghamton State Hospital, Binghamton, N. Y.; at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and Specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

Dated September 8, 1920.

E. S. ELWOOD,
Secretary, State Hospital Commission.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 8	Bedford Hills, N. Y.	Sept. 30
Oct. 11	Allentown, Pa. Adv. Sept. 16 to 30.	Sept. 16
Oct. 14	Sacramento, Cal.	Sept. 16
Oct. 18	Nokomis, Ill. Adv. Sept. 30.	Sept. 30

SEWERS

Oct. 1	Charleston, W. Va.	Sept. 23
Oct. 4	Pontiac, Mich.	Aug. 26
Oct. 4	Augusta, Wis.	Sept. 23
Oct. 4	Columbus O.	Sept. 23
Oct. 4	Long Island City, N. Y.	Sept. 30
Oct. 6	Wauwatosa, Wis.	Sept. 30
Oct. 7	Montclair, N. J.	Sept. 30
Oct. 8	Cleveland, O.	Sept. 30
Oct. 11	Cleveland, O.	Sept. 23
Oct. 13	Ossining, N. Y.	Sept. 23
Oct. 19	Wichita, Kan.	Sept. 30
Oct. 30	Yorkville, O.	Sept. 23

BRIDGES

Oct. 9	Enid, Okla.	Sept. 30
Oct. 12	Maryland Adv. Sept. 30.	Sept. 30
Oct. 19	Alabama	Sept. 23
Oct. 21	Chicago, Ill. Adv. Sept. 30.	Sept. 30
Oct. 22	Detroit, Mich. Adv. Sept. 23 and 30.	Sept. 23

STREETS AND ROADS

Oct. 4	Washington	Sept. 23
Oct. 4	Michigan	Sept. 23
Oct 4	Akron, O.	Sept. 23
Oct. 4	Albany, N. Y.	Sept. 30
Oct. 5	Kentucky	Sept. 30
Oct. 5	Seguin, Tex.	Sept. 23
Oct. 5	Baltimore, Md. Adv. Sept. 23 and 30.	Sept. 30
Oct. 5	Durham, N. C.	Sept. 30
Oct. 5	Tyler, Tex.	Sept. 30
Oct. 6	Faribault, Minn.	Sept. 16
Oct. 6	Faribault, Minn.	Sept. 23
Oct. 6	New Jersey Adv. Sept. 23 and 30.	Sept. 23
Oct. 6	Michigan	Sept. 23
Oct. 6	Jefferson, Tex.	Sept. 30
Oct. 6	Ventura, Cal.	Sept. 30
Oct. 6	Wisconsin	Sept. 30
Oct. 7	Wisner, Neb.	Sept. 23
Oct. 7	Darlington, S. C.	Sept. 30
Oct. 8	Ohio	Sept. 23
Oct. 8	Moundsville, W. Va.	Sept. 23
Oct. 8	Rockport, Tex.	Sept. 30
Oct. 8	Missouri	Sept. 30
Oct. 9	Missouri	Sept. 30
Oct. 9	Arizona	Sept. 30
Oct. 9	Westerville, O.	Sept. 30
Oct. 11	Colorado	Sept. 30
Oct. 12	Maryland Adv. Sept. 30.	Sept. 30
Oct. 13	West Orange, N. J.	Sept. 30
Oct. 13	Pennsylvania Adv. Sept. 23 and 30.	Sept. 23
Oct. 13	Missouri	Sept. 30
Oct. 14	Arizona	Sept. 30
Oct. 14	Middlesex (Sayreville P. O.), N. J.	Sept. 30
Oct. 14	New Mexico	Sept. 30
Oct. 15	San Benito, Tex.	Sept. 16
Oct. 15	Missouri	Sept. 30
Oct. 19	Shakopee, Minn.	Sept. 23
Oct. 21	Siloam Springs, Ark.	Sept. 30
Oct. 22	Missouri	Sept. 30
Oct. 22	Jacksonville, Fla. Adv. Sept. 30.	Sept. 30

RAILWAYS

Oct. 1	Ontario	Sept. 16

EXCAVATION AND DREDGING

Oct. 2	Lamar, Col. Adv. Sept. 23 and 30.	Sept. 23
Oct. 4	Webster City, Ia.	Sept. 30
Oct. 5	Wapello, Ia. Adv. Sept. 23 and 30.	Sept. 23
Oct. 7	Cleveland, Miss.	Sept. 23
Oct. 7	Algona, Ia.	Sept. 30
Oct. 12	Nevada, Ia.	Sept. 30
Oct. 14	Atlantic, Ia.	Sept. 30

INDUSTRIAL WORKS

Oct. 2	London, Ont.	Sept. 23
Oct. 11	Camp Douglas, Wis.	Sept. 30
Oct. 15	London, Ont.	Sept. 23
Oct. 15	Tilbury, Ont.	Sept. 23
Nov. 1	Webb City, Mo.	Sept. 16

BUILDINGS

Oct. 1	Montreal, Que.	Sept. 23
Oct. 1	Peabody, Mass.	Sept. 23
Oct. 1	Peabody, Mass.	Sept. 30
Oct. 3	Canton, O.	Sept. 9
Oct. 3	Cleveland, O.	Sept. 30
Oct. 4	Philadelphia, Pa.	Sept. 30
Oct. 4	Great Neck, N. Y.	Sept. 16
Oct. 4	Janesville, Wis.	Sept. 30
Oct. 4	Portage La Prairie, Man.	Sept. 30
Oct. 5	Ashtabula, O.	Sept. 30
Oct. 6	Carey, O.	Sept. 30
Oct. 6	Minneapolis, Minn.	Sept. 30
Oct. 7	Rapid City, S. D.	Sept. 30
Oct. 7	Elk Mound, Wis.	Sept. 30
Oct. 8	Brooklyn, N. Y.	Sept. 30
Oct. 8	La Crosse, Wis.	Sept. 30
Oct. 12	Huron, S. D.	Sept. 2
Oct. 12	Marysville O.	Sept. 30
Oct. 13	New Bedford, Mass.	Sept. 30
Oct. 15	Presho, S. D.	Sept. 30
Oct. 15	Canton, O.	Sept. 30
Nov. 15	Enid, Okla.	Sept. 30
Nov. 15	Dallas, Tex.	Sept. 23

FEDERAL GOVERNMENT WORK

Oct. 4	Road Work—Arizona	Sept. 30
Oct. 6	Quartermasters Storehouse —Spec. 4280 — San Diego, Cal.	Sept. 16
Oct. 6	Lighting System — Spec. 4281—Chelsea, Mass.	Sept. 23
Oct. 6	Elevators—Spec. 4285—San Diego, Cal.	Sept. 30
Oct. 11	Conduit, Dam, etc.—Norfolk, Va.	Sept. 16
Oct. 11	Dredging — Providence, R. I. Adv. Sept. 16 to 30.	Sept. 16
Oct. 11	Steel Barges — Memphis, Tenn. Adv. Sept. 16 to 30.	Sept. 16
Oct. 13	Hospital Buildings—Spec. 4300—San Diego, Cal. Adv. Sept. 30.	Sept. 16
Oct. 13	Seaplane Runway — Spec. 4267 — Hampton Roads, Va.	Sept. 30
Oct. 14	Dump Scows—Phila., Pa. Adv. Sept. 16 to 30.	Sept. 16
Oct. 14	Steel Buoys — Tompkinsville, N. Y.	Sept. 30
Oct. 15	Office and Laboratory — Spec. 4301—Wash., D. C. Adv. Sept. 30.	Sept. 30
Oct. 15	Scotch Marine Boilers, etc —Jacksonville, Fla. Adv. Sept. 23 and 30	Sept. 23
Oct. 20	Concrete Pavement, etc.— Spec. 4257—Ft. Lyon, Col.	Sept. 30
Oct. 20	Nine Storage Buildings — Spec. 4253—New Orleans, La. Adv. Sept. 30.	Sept. 30
Oct. 22	Dredging—Norfolk, Va.	Sept. 23
Oct. 23	Foundations and Coping for Reflecting Pool — Wash., D. C.	Sept. 30
Oct. 25	Hospital — West Point, N. Y. Adv. Sept. 30.	Sept. 30
Oct. 26	Remodeling and Repairing Customhouse and Post Office—Buffalo, N. Y. Adv. Sept. 30.	Sept. 30
Oct. 30	Hoisting Plant—Wahington, D. C.	Sept. 16

MISCELLANEOUS

Oct. 4	Foundation, etc.—Toledo, O.	Sept. 23
Oct. 4	Heating Apparatus, etc.— Brooklyn, N. Y.	Sept. 30
Oct. 6	Laundry Equipment—Binghamton, N. Y.	Sept. 16
Oct. 6	Tunnels, Conduits, etc. — Marcy, N. Y.	Sept. 16
Oct. 7	Pavilions—Randalls Island, (New York P. O.), N. Y.	Sept. 30
Oct. 7	Limestone Dust—New York, N. Y.	Sept. 30
Dec. 9	Dry Dock — Esquimalt B. C.	Sept. 30
Oct. 11	Ferry Boat—New York, N. Y.	Sept. 23
Oct. 13	Piles, Bulkhead, etc. — Brooklyn, N. Y. Adv. Sept. 16 to 30.	Sept. 16
Oct. 13	Piers—Oswego, N. Y. Adv. Sept. 16 to 30.	Sept. 16
Oct. 18	Locks—Chicago, Ill.	Sept. 16

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. J., Newark—North Jersey Dist. Water Supply Comn., 20 Clinton St., opens bids about Oct. 28, building portion of Wanaque Dam below surface of ground, to include core wall in deep trench, etc., involving 28,500 cu.yd. concrete, 83,000 cu.yd. earth and 23,000 cu.yd. rock excav. M. R. Sherrerd, city engr. Noted May 6.

Pa., Harrisburg—J. H. Fuertes, consult. engr., 140 Nassau St., New York City, retained by city to report on waterworks system, recommends new intake filter plant, cost $85,000; 6 filters, $100,500; settling basin, $140,300; additional pumps, $16,000; washing plant and new settling basin inlets, $95,000; new pump station engines, etc., $273,000; dust removing device, $24,000; new and larger mains, $285,420; new high service reservoir of 30,000,000 gal. capacity, $461,270; new pipe, $69,950.

Waterworks (Continued)

O., Delaware—City retained M. Knowles, engr., Hippodrome Bldg., Cleveland, to prepare plans for waterworks system, to include 2 wells. G. Irwin, dir. Pub. Serv.

Kan., Osawatomie—City having plans prepared by Black & Veatch Eng. Co., engrs., Mutual Bldg., Kansas City, Mo., for addition to water power plant, brick, rein.-con. flooring, also rein.-con. dam to impound 60,000,000 gal. Bonds for $85,000 voted for project.

Kan., Topeka—City election Nov. 3, to vote on $460,000 bonds to build filteration plant and pumping station. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Neb., Sidney—City having plans prepared by R. D. Salisbury, engr., 1415 East Colfax Ave., Denver, Col., for waterworks system. About $126,000.

S. D., Madison—City voted $50,000 bonds to extend waterwork systems. Noted Aug. 26.

Mont., Roundup — See "Streets and Roads."

Tex., Belton—City voted $50,000 bonds to extend waterworks system.

Okla., Spiro—City election No. 4 to vote on $40,000 bonds to build addition to pumping plant. H. G. Olmstead & Co., 415 Oil Exch. Bldg., Oklahoma, engrs.

BIDS DESIRED

N. Y., Bedford Hills—Until Oct. 8, by M. Fiske, pres. Bd. Bgrs., New York State Reformatory for Women, building filtration plant, advertised in this issue.

Ill., Nokomis—Until Oct. 18, by W. A. Bote, city clk., building brick pumping well, 20 ft. diameter, 40 ft. deep; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★O., Grafton—Village let contracts building 4-8 in. c.i. water mains, to D. Pfahl Co., Guardian Bldg., Cleveland; 1 story, 20 x 20 ft., concrete pump house, to Dobson-Maines Co., Pittsburgh, Pa.; 2 deep well pumps, to Cleveland Pump & Supply Co., Guardian Bldg., Cleveland, sewerage system, to T. Tripolliti, Lorain. Total cost, $100,000. Noted May 20.

★O., Maple Heights (Cleveland P. O.)—Village let contract laying 6,040 ft. 6-10 in. c.i. water mains in Elm Drive, Lease, Maple and Granger Rds., Mila, Forest, Clement and Beech Aves., Libby and Granger Courts, to A. Lanese Co., Columbia Bldg., Cleveland. About $54,000. Noted July 8.

★Ill., Rockford—City let contract building new pumping station, to R. P. Boekstrom & Co., 208 Trust Bldg., $88,122.

★Ia., Cherokee—State Bd. Control, Des Moines, let contract laying 5,000 ft. 8 in. pipe, to Sieg. Constr. Co., Waterloo; building pump house, pump pit and reservoir, to Rhodes & Christianson, Guthrie Center; furnishing machinery, to Fairbanks-Morse Co., 900 Souh Wabash Ave., Chicago. Total about $72,500. Noted July 8.

★Minn., Pipestone—City let contract building 1 story, concrete pumping station, to Hunt & Sons, Pipestone. About $15,000.

★Neb., O'Neill—City let contract laying water mains in various streets, to J. Danielson, Omaha, cost plus percentage basis; furnishing 150,000 gal. tank and tower, to Omaha Structural Steel Co., 48th and Leavenworth Sts., Omaha. About $20,500.

★S. D., Eureka—City let contract extending waterworks and sewerage systems, to Phelps-Drake Co., 631 Metropolitan Life Bldg., Minneapolis, Minn. About $18,000.

Wash., Seattle—City received bids Sept. 18, building water mains in North Lake Ave., et al. (a) clay, (b) concrete, from F. N. Badolato, Builders Exch., (a) $44,207, (b) $44,058; Olympic Constr. Co., Green Bldg., (a) $48,951, (b) $48,436. Work involves 1,100 cu.yd. earthwork, 3,510 lin. ft. type "A" armored concrete curb, 2,185 lin.ft. special concrete curb, 1,020 lin.ft. 8 in. concrete or 1,020 lin.ft. 8 in. clay sewer pipe.

Sewers

PROPOSED WORK

R. I., Lonsdale (Pawtucket P. O.)—Lonsdale Co. plans to build sewerage system for its plant and houses. Engineer not selected.

Ill., Earlville—City having plans prepared building 5 mi. sewerage system and sewage disposal plant. About $100,000. W. S. Shields, 8 South Dearborn St., Chicago, engr.

Wis., Hartford—City having plans prepared for new sewage disposal tank and relaying sewers in West Sumner St., etc. About $25,000. C. Leins, West Bend, engr.

Kan., Marion—City retained Black & Veatch, engrs., Mutual Bldg., Kansas City, Mo., to make surveys for storm sewers in several streets.

Kan., Stockton—City having plans prepared for building 60,000 ft. sanitary sewers in various streets. E. Taichu Co., New England Bldg., Kansas City, Mo., engrs.

S. D., Madison—City voted $50,000 bonds to extend sewerage system. Noted Aug. 26.

Mo., Grant City—City rejected bids received Sept. 21, building public sewers and sewage disposal plant in Dist. 1. Work will be readvertised. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs. Noted Sept. 9.

Tex., Belton—City voted $25,000 bonds to extend sewerage system.

Okla., Spiro—City election Nov. 4, to vote on $50,000 bonds to build 8-10 in. vitr. sanitary sewers and sewage disposal plant.

Wash., Tacoma—City plans to build Buckley Gulch Sewer from 15th and Junett Sts. to Puget Sound. About $198,000. J. C. Manley, Tacoma, engr.

Que., St. John—City receiving bids building sewers in Jackwood St. About $40,000.

BIDS DESIRED

N. Y., Long Island City—Until Oct. 4, by M. E. Connolly, pres. Queens Boro., building sewer and appurtenances in Lurting St. from Way Ave. to Nicholls St., Nicholls St. from Louona Ave. to 51st St., Provoost St. from Corona Ave. to 51st St., Alstyne Ave. from Way Ave. to Radcliffe St., Christie St. from Corona to Alstyne Aves.; building temporary sewer and appurtenances in Fulton St. from Harvard Ave. to Carroll St.

N. J., Montclair—Until Oct. 7, by Bd. Comrs., Municipal Bldg., constructing 3,700 ft. 12-30 in. underground drain or storm sewer from point in brook near Bloomfield to Bellevue Ave. and west to Park Ave. H. Trippey, town clk.

O., Cleveland—Until Oct. 8, by city, building sewer in Luke Rd. extension, involving 1,450 ft. 5 ft. brick pipe. R. Hoffman, 618 City Hall, engr.

Wis., Wauwatosa—Until Oct. 6, by Milwaukee Co. Bd. Administration, Milwaukee, rebuilding sewage disposal plant at county institutional buildings, here. Work includes (1) 17,500 ft. 2 x 4 in. timbers, (2) sludge bed, involving 180 cu.yd. excav., 270 cu.yd. sand and 970 ft. 4-10 in. drain tile, (3) new filters and rebuilding old ones, 1,450 cu.yd. excav., 12,100 cu.yd. sand and gravel, 7,400 ft. 4-12 in. drain tile, etc.

Kan., Wichita—Until Oct. 19, by H. D. Lester, city clk., building Storm Sewer No. 19, involving 2,300 ft. 30-36 in. segment block brick or concrete pipe and 13,300 ft. 10-27 in. vitr. pipe, etc. About $50,000. P. L. Brockway, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★R. I., Pawtucket—City let contract building 2,100 ft. concrete sewer, 5 ft. diam., 18 ft. deep, in Prairie Ave., to Lindberg & Street, 294 Washington St., Boston. Noted Aug. 19.

★N. Y., Brooklyn—E. Riegelmann, boro. pres., let contract building sewer in New Utrecht Ave., to Tomasetti Co., .9598% of engineers estimate of $26,533; East 24th St. from Ave. N to Ave. O and from Ave. L to Ave. M, also in 82nd St. to A. Ferris, 94% of engineers estimates of $4,435, $5,400 and $5,217 respectively; Warehouse Ave., to Murphy Bros., 122.8% of engineers estimate of $8,360. Noted Sept. 16.

★O., Grafton—See "Waterworks."

★Wis., Amery—City let contract building sanitary and storm sewers in various streets, to Rohr & Pratt, Pipestone, Minn., $32,992. Noted July 22.

Wis., Beaver Dam—City received bids excavating and installing 8-12 in. vitr pipe sewer in 1.2 mi. Roller Ave., Chatham and West South Sts., from Brogan & Burns, Green Bay, 8 in. $2.90, 10 in. $3.15, 12 in. $7, 2 manholes at $125 each; W. F. Rabens, Main St., Mayville, 8 and 10 in., $2.[illegible]

Bridges

PROPOSED WORK

N. H., Littleton—Town Bridge Comn. plans to build 220 ft. highway bridge, 32 ft. wide on Chadwick Ave., to have steel trusses and concrete floor slabs. Storrs Eng. Co., 11 South Main St., Concord, engrs.

N. Y., Buffalo—City having plans prepared by Strauss Bascule Bridge Co., engrs., 104 South Michigan Ave., Chicago, for bridge over Buffalo River, on Bailey Ave. About $300,000.

N. J., Camden — Interstate Delaware Bridge Comn. retained R. Modjeski, 101 Park Ave., New York City, L. A. Ball, East Orange and G. S. Webster, Bureau of Surveys, Phila., engrs., to prepare plans for 1,750 ft. bridge over Delaware River, between here and Phila.

Kan., Abilene—Dickson Co. election Nov. 2, to vote on $100,000 bonds to rebuild several bridges.

Kan., Lyndon—Osage Co. had plans prepared for 114 ft. bridge, 20 ft. roadway, near Quenemo, to have three 35 ft. rein.-con. T-girder spans on concrete abutments and piers, involving 346.3 cu.yd. Class "A" and 180 cu.yd. Class "C" concrete, 43,012 lb. steel, etc.; 160 ft. bridge, 20 ft. roadway, 4 mi. north of Quenemo, to have three 50 ft. rein.-con. T-girder spans on concrete piers and abutments, 199.5 cu.yd. Class "A" and 566.4 cu.yd. Class "C" concrete, 50,460 lb. steel, etc. Kansas Eng. Co., 1233 Western St., Topeka, engrs.

Missouri — State Highway Dept., St. Joseph, rejected bid received Aug. 20, building rein.-con. skew slab superstructure and 4 rein.-con. pile bents, over Contrary Creek, on Sta. 64 plus 32, to have three 27 ft. spans, 18 ft. roadway, cost $9,491; rein.-con. through girder superstructure, over Rushville Drainage Ditch, on Sta. 649 plus 51, to have one 40 ft. span, 18 ft. roadway, $9,887; rein.-con. deck girder superstructure and 1 temporary bridge, over drainage ditch on Sta. 229 plus 00, to have one 24 ft. span, 18 ft. roadway, $4,788; rein.-con. skew slab superstructure and 1 concrete pier, over Drainage Ditch on Sta. 515 plus 65, to have two 19 ft. 10½ in. spans, 18 ft. roadway, $4,868; rein.-con. skew slab superstructure and 2 concrete piers, over drainage ditch on Sta. 357 plus 90, to have three 15 ft. spans, 18 ft. roadway, $6,380. Above projects in Buchanan Co. on Federal Aid Project 40. Noted Sept. 9.

Missouri—State Highway Dept., Harrisonville, rejected bids Sept. 1, building rein.-con. deck girder superstrucure (Longshore Bridge), over branch of Grand River, on Sta. 6 plus 03, to have one 24 ft. span and 18 ft. roadway, cost $5,195; rein.-con. spandrel filled arch bridge (Frahm Bridge), over Grand River, Sta. 137 plus 40, to have two 50 ft. spans and 18 ft. roadway, $19,533; rein.-con. deck girder superstructure and 1 concrete pier, (Brown Bridge), over Grand River, Sta. 118 plus 60, to have two 28 ft. spans and 18 ft. roadway, $10,107, all on Sect. A, Federal Aid Project 20. Noted Sept. 16.

Tex., Bonham—Bonham Red River Bridge Comn. rejected bids received Sept. 20, building bridge over Red River, to have four 185 ft. steel spans, concrete piers, etc. Work will probably be readvertised in spring. Harrington, Howard & Ash, O'Rear-Leslie Bldg., Kansas City, Mo., engrs. Noted Sept. 16.

BIDS DESIRED

Md., St. George Island—Until Oct. 12, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building timber bridge on timber piles, over St. George Creek, between here and Piney Point, St. Marys Co. J. N. Mackall, chn.; advertised in this issue.

Ill., Chicago—Until Oct. 21, by L. S. Rapp, clk. Sanitary Dist. of Chicago, 910 South Michigan Ave., building substructure and superstructure of bascule bridge across main channel of Sanitary Dist. of Chicago, on line of California Ave.; advertised in this issue. Noted June 29.

Ark., Siloam Springs—Until Oct. 21, by Bd. Comrs. Rd. Impvts., Dist. 5, Benton Co., at office of L. B. Kemper, secy., building 200 ft. span and 330 ft. timber trestle approach, one 130 ft. span, four 50 ft. spans and one 40 ft. span bridges, involving

Bridges (Continued)

375 cu.yd. concrete, 3,000 lb. steel bars and 403 lin.ft. steel tubular piers. W. L. Winters, Ft. Smith, engr.

Okla., Enid—Until Oct. 9, by City Comrs., building three 16 ft. rein.-con. bridges over boggy creek, 54 ft. wide, with 2 walk ways. About $39,847. B. F. Lewis, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Vt., Windsor**—Boston & Maine R.R., North Sta., Boston, let contract building steel and concrete bridge, here, to Amer. Bridge Co., 120 Franklin St., Boston. Cost to exceed $25,000.

★**N. Y., New York**—Dept. Docks, Pier "A" ft. of North River, let contract building inshore portion of Brooklyn Bridge improvement, to E. Steers, 17 Battery Pl. About $246,000. Noted Sept. 23.

N. J., Livingston—Essex Co. (Newark) let contract building Columbia Bridge, concrete arch, over Passaic River, on South Orange Ave., here, to A. E. Smith, Plainfield. $78,713. Noted Sept. 23.

D. C., Washington — Dist. Comrs., 509 Dist. Bldg., received bids building rein.-con. slab and girder bridge, over Watts branch, at 50th St. N. E., (1) excavation (2) bridge complete except excavation, from C. H. Tompkins, 1883 3rd St. N.W., (1) $3, (2) $3,683; R. E. Boiseau, 5905 Blair Rd., (1) $4.50, (2) $6,600; H. P. Giddings, 149 13th St. N.E., (1) $2.65, (2) $4,860.

★**Ia., Dubuque**—Dubuque Co. let contract building 2 bridges and 2 culverts, to A. Olson, 401 Black Hawk Natl. Bank Bldg., Waterloo, $22,000; 8 culverts, to J. O. Parsons, Dyersville, $10,000; 10 culverts, to J. J. Leonard, Dubuque, $7,000; all work to be rein.-con.

★**Wyo., Thermopolis** — State Highway Dept., Cheyenne, let contract building 320 ft. rein.-con. bridge, 30 ft. wide, over Big Horn River, on Federal Aid Project 80, here, to have four 68 ft. rein.-con. arch spans, 20 ft. roadway and two 5 ft. sidewalks, involving 1,300 cu.yd. rein.-con., 75 tons steel and 600 lin.ft. cofferdam, to R. M. Templeton, Casper, $87,500. Noted Aug. 26 under "Wyoming."

Wyoming — State Highway Dept., Cheyenne, received bids building Snake River Bridge, in Jackson Hole, on Wilson-Moran Rd., Federal Aid Project 22, Lincoln Co., to include moving three 130 ft. spans to present site and building two 130 ft. additional spans, from Levy Constr. Co., Symes Bldg., Denver, Col., and Midland Bridge Co., 504 Ry. Exch. Bldg., Kansas City, Mo. Above bids exceeded engineers estimate ($140,000) and contractors requested to revise figures. Noted Aug. 26.

Streets and Roads

PROPOSED WORK

Me., Augusta—City plans to pave 26 mi. streets, 6 in. gravel. About $65,000. P. W. Varney, city engr.

R. I., Woonsocket—Town plans to pave Bellevue Ave., cost, $7,100; Morton Ave., $22,000; Harrison Ave., $8,400 and Boone St., $9,000, trap rock and macadam with asphalt binder. F. H. Mills, city engr.

N. Y., Brooklyn—E. Riegelmann, boro. pres., rejected bids Sept. 1, regulating and repaving Atlantic Ave., 57th and Columbia Sts. Noted Sept. 9.

N. Y., New York—Dept. Parks, Municipal Bldg., rejected bids Aug. 12, repairing walks in Riverside Park. Work will be readvertised. Noted Aug. 5.

N. J., Trenton—City plans to pave French Alley, Armory and Front Sts., involving 4,570 sq.yd. concrete and waterbound macadam. About $27,500. A Swan, City Hall, engr.

N. J., Woodbury—Bd. Freeholders Gloucester Co. plans to improve 3 mi. Glassboro-Westville Pike. About $136,000. W. C. Cattell, Menonah, engr.

Pa., Conyngham—Boro. having surveys made for paving 1 mi. Main St., cement. F. L. Lubrecht, Markle Bldg., Hazleton, archt.

W. Va., Keyser—Comrs. Mineral Co. plan to grade 4¼ mi. Blaine-Sulphur Rd. About $55,840. S. H. Lea, Keyser, engr.

W. Va., Marlington—Comrs. Pocahontas Co. plan to grade 4¼ mi. Warwick-Dunsmore Rd. About $47,168. F. Baxter, Edray, engr.

W. Va., Middlebourne—Comrs. Tyler Co. plan to grade and build several bridges on 4.13 mi. Sistersville-Friendly Rd. About $47,427. C. B. Cook, Middlebourne, engr.

Wis., Superior—City voted $130,000 bonds to improve various streets.

Minn., Aitkin—Aitkin Co. received no bids Sept. 7, grading 8.3 mi. State Aid Job 2,003, and 8 mi. Federal Aid Project 120, State Rd. 1. About $33,000 and $32,000 respectively. F. J. O'Hara, Aitkin, engr.

Minn., Crookston—Polk Co. rejected bids Sept. 14, graveling 13.5 mi. Federal Aid Project 155, County Job 2001. About $52,000. E. H. Harding Crookston, engr. Noted Aug. 26.

N. D., Linton—Comrs. Emmons Co. plan to grade 17 mi. Federal Aid roads, 24 ft. wide. E. H. Brant, aud.

Montana—State Highway Dept., Helena, plans to gravel surface 5 mi. Saco Sect. of Roosevelt Highway, Phillips Co., cost $26,675; 2.2 mi. Deer Lodge-Drummond Rd., Powell Co., $48,506; 30 mi. Choteau-Dupuyer Rd., Teton Co., $194,656. Federal Government has been asked to appropriate toward cost. J. N. Edy, state highway engr.

Mont., Roundup—City Council voted to issue $56,000 bonds to pave various streets, lay water mains and build ornamental lighting system.

Missouri—State Highway Dept., Harrisonville, rejected bids received Sept. 1, building 19 mi. Sect. A, Harrisonville-Belton Rd., 24 ft. wide, Federal Aid Project 20, Cass Co. About $93,144. Noted Sept. 16.

Missouri—State Highway Dept., Jefferson City, plans to build 15 mi. Cairo-Poplar Bluff Rd., Federal Aid Project 118, Stoddard Co., involving 45,000 cu.yd. earth excav., 140,800 sq.yd. gravel surfacing, one 36 ft. span bridge, etc., cost $127,000; 49 mi. Crane-Galena-Reeds Springs-Blue Eye Rd., Federal Aid Project 161, Stone Co., 220,460 cu.yd. earth and 2,000 cu.yd. rock excav., 3,037 cu.yd. dry rubble masonry, etc., $137,885.

Missouri — State Highway Dept., St. Joseph, rejected bids received Aug. 20, building 20.02 mi. Sect. A St. Joseph-Atchison Rd., 24 ft. wide, Federal Aid Project 49, involving 35,045 cu.yd. earth and 1,658 cu.yd. rock excav., 210,181 cu.yd. borrow, 9,570 lin.ft. 4 in. tile underdrain, cost $127,213; 20.02 mi. Sect. "C" St Joseph-Atchison Rd, Federal Aid Project 49, both Buchanan Co., 211,454 sq.yd. 1 course plain cement concrete pavement, 10,805 lin.ft. wooden guard rail, $814,330. Incorrectly noted in our issue of Sept. 2.

Mo., Greenfield—Dade Co. had plans prepared grading, building culverts and bridges on 5.06 mi. road in Lockwood Twp., 12 ft. gravel, 24 ft. roadway, waterbound macadam. About $34,350. Elston, Axon & Russell, 309 McDaniel Bldg., Springfield, engrs.

Tex., Anahuace — Chambers Co. having plans prepared surfacing and building bridges and culverts on 11.35 mi. Highway 35 from here to Liberty Co., involving 23.4 acres clearing and grubbing, 84,000 cu.yd. borrow and 200 cu.yd. structural excav., 400 cu. yd. Class "A" concrete, 37,000 lb. reinforcing steel and 27,000 cu.yd. shell surfacing. About $133,255. H. J. Walger, Orchard, engr.

Tex., Austin—Travis Co. having plans prepared grading, gravel surfacing and draining 8.6 mi. Highway 20 from 2 mi. east of Manor to Bastrop Co., involving 22,300 cu.yd. gravel, 41,190 lb. reinforcing steel, 79,815 sq.yd. bituminous macadam, 66,800 cu.yd. unclassified earth and 700 cu.yd. structural excav., 475 cu.yd. Class "A" and 183 cu.yd. Class "B" concrete. About $207,499. H. W. Nolan, 511 Scarbrough Bldg., engr.

Tex., Dallas—Dallas Co. had plans prepared grading, surfacing and draining 18.08 mi. Garland Rd., Highway 1 from here to Rockwall Co. line, involving 58,425 cu.yd. borrow, 4,443 cu.yd. solid rock and 890 cu.yd. loose rock excav., 396,009 lb. reinforcing steel, 118,546 lb. reinforcing mesh, 4,299.6 cu.yd. Class "A" and 496 cu.yd. Class "B" concrete, 3,449 cu.yd. bituminous concrete, etc. About $973,865. Nagle, Witt & Rollins Eng. Co., Gaston Bldg., engrs.

Tex., Daingerfield — Morris Co. having prepared surfacing and building bridges and culverts on 10.68 mi. Highway 1A from Cass to Titus Co. lines, involving 6 acres clearing and grubbing, 40,356 cu.yd. earth excav., 16,528 cu.yd. gravel, 29,788 lb. reinforcing steel, 99,420 ft. timber, 406.6 cu. yd. Class "A," 76 cu. yd. Class "B" and 21 cu.yd. Class "C" concrete. About $111,148. McClendon & Pumell, Daingerfield, co. engrs.

Tex., Hondo—Medina Co. had plans prepared building gravel or rock asphalt road and concrete drainage structures on 13.4 mi. Highway 2 from Devine to Atascosa Co. line, 16 ft. wide. Cost, gravel, $350,191; bituminous, $422,675. E. P. Arneson, c/o Walton & Arneson, Gunter Bldg., San Antonio, engr.

Tex., Del Rio—Val Verde Co. having plans prepared grading, surfacing and draining 4.54 mi. Highway 4 from 4.9 mi. north of here to San Pedro Creek, involving 9,246 cu.yd. gravel, 72,460 sq.yd. rolling, 7,258 lb. reinforcing steel, 181 cu.yd. Class "A" concrete, 7,992 cu.yd. earth, 1,064 cu.yd. loose rock and 523 cu.yd. solid rock excav. About $35,100. G. M. Jowers, engr. Noted Jan 1

Colorado—State Highway Dept., Denver, plans to grade and drain 6 mi. road between Kremmling and Steamboat Springs, 16 ft. wide, Federal Aid Project 75, Grand Co. About $27,000.

Ont., London—City receives bids about Oct 15, building concrete pavements on Clarke and Elliott Sts. About $100,000. R. M. Selkirk, Leamington, engr.

BIDS DESIRED

N. Y., Albany—Until Oct. 4, by Bd. Contract & Supply, City Hall, grading Cliff St. from Allen to Hart Sts., Winne St. from New Scotland Ave. to Cliff St., Hart St. from Cliff to Bower Sts., Twitchell St. from Winne to Hart Sts.; laying sewer in Leighton St. from McCarthy Ave. to Mountain St. and in Mountain St. from Leighton St. to point 580 ft. west.

N. J., Middlesex (Sayresville P. O.)—Until Oct. 14, by Bd. Freeholders Middlesex Co. (New Brunswick), improving Lincoln Blvd., here. T. J. Mulvihill, clk.; advertised in this issue.

N. J., West Orange—Until Oct. 13, by Bd. Freeholders Essex Co., (Newark), grading Laurel Ave., W. About $25,000. F. J. Reimer, co. engr.

Maryland—Until Oct. 5, by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving 3 mi. state highway, along Philadelphia Rd. from Little Gunpowder fall toward Aberdeen, Harford Co., Contr. H-26; 3 mi. state highway on East-on-Claiborne Rd. from Lipscombs Gate to Royal Oak, Talbot Co., Contr. T-12; 5 mi. state highway from Morganza toward Colton, St. Marys Co., Contr. SM-14 and 1.79 mi. state highway from Frederick Jct. to Hopeland, Frederick Co., Contr. F-27A. J. N. Mackall, chn.; advertised in this issue.

Maryland—Until Oct. 12, by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving 3.62 mi. state highway from Showell to Delaware State Line, Worcester Co., Contr. WO-18; 0.98 mi. state highway through town of Princess Anne, Somerset Co., Contr. S-12; 4.27 mi. state highway from end of Contr. 520 to New Windsor, Carroll Co., Contr. CI-27. J. N. Mackall, chn.; advertised in this issue.

N. C., Durham—Until Oct. 5 by Comrs. Durham Co., top soiling 4.32 mi. Durham-Robinson Grove Rd. F. E. Schnepfe, Durham, engr.

S. C., Darlington—Until Oct. 7 by W. C. Gandy, superv., Darlington Co., grading and surfacing 19.87 mi. McRee-Florence Rd., sand clay. W. S. Lewis, Florence, engr.

Fla., Jacksonville—Until Oct. 22, by City Comn. laying 3,300 sq.yd. concrete and 11,800 sq.yd. tile sidewalks. F. M. Edwards, Main and Orange Sts., city engr.

Kentucky—Until Oct. 5, by State Highway Comn., Old Capitol Bldg., Frankfort, shaping, draining and grading 10.4 mi. Madisonville-Dixon Rd. from Madisonville, Sta. 0 plus 00 to Webster Co. line, Sta. 549 plus 80, Hopkins Co., State Project 2, Federal Aid Project 41, Sects. A and B; 7.9 mi. Madisonville-Hopkinsville Rd. from Mortons Gap, Sta. 0 plus 00, to Christian Co. line, Sta. 467 plus 00, Hopkins Co., State Project 2, Sects. C and D, Federal Aid Project 41, Sects. C and E; 4.6 mi. Henderson-Dixon Rd. from Cairo Sta. 210 plus 00, to Webster Co. line, Sta. 454 plus 06, Henderson Co., State Project 2, Sect. A, Federal Aid Project 42; shaping, draining and surfacing 14.8 mi. London-Mt. Vernon Rd. from Rockcastle River, Sta. 0 plus 00, to north city limits of London, Sta. 783 plus 79.7, Laurel Co., State Project 5, Sect. A, Federal Aid Project 29, Sect. B, waterbound macadam, waterbound macadam surfaced treated or bituminous macadam (penetration type); 9.5 mi. Williamsburg-Corbin Rd. from Wofford, Sta. 247 plus 00, to Woodbine, Sta. 809 plus 00, Whitley Co., State Project 35, Sects. A and

Streets and Roads (Continued)

B, Federal Aid Project 23, Sect. C, Kentucky rock asphalt, waterbound macadam or waterbound macadam surface treated; 11.3 mi. Glasgow-North Rd. from Glasgow, Sta. 0 plus 00, to Hart Co. line, Sta. 597 plus 37, Barren Co., State Project 3, Federal Aid Project 28, Sect. A, waterbound macadam surface treated, bituminous macadam (penetration type) or Kentucky rock asphalt; shaping and surfacing 1.6 mi. Frenchburg-West Liberty Rd. from Frenchburg, Sta. O plus 00, to West Liberty, Sta. 85 plus 00, Menifee Co., State Project 32, Sect. A, waterbound macadam, waterbound macadam surface treated or gravel; surfacing 4.7 mi. Richmond-Kingston Rd. from end of present surface treatment, Sta. 112 plus 37, to Kingston, Sta. 359 plus 45, Madison Co., State Project 5, Sect. A. J. C. Boggs, state highway engr.

O., Westerville—Until Oct. 9, by Comrs. Franklin Co., (Columbus) grading, draining and paving with brick, 2,087 ft. Sect. 1 State St., here, 30 ft wide, brick, cost $59,-423; 1,038 ft. Sect. 2 State St., 30 ft. wide, brick, $31,821. C. C. Lattimer, co. surv.

Wisconsin—Until Oct. 6, by State Highway Comn., at div. office 8, 1st Natl. Bank Bldg., Superior, grading 16.8 mi. Ashland-Iron River Rd., Federal Aid Project 121, Bayfield Co., involving 102.1 acres clearing, 89.66 acres grubbing, 137,315 cu.yd. earth and 4,329 cu.yd. borrow excav., 823.9 cu.yd. Class "A" concrete in culverts, 255 cu.yd. Class "A" concrete in structures over 20 ft. span, etc.

Missouri—Until Oct. 8, by State Highway Dept., Clinton, building 5.95 mi. Windsor-Leeton Rd., 24 ft. wide, Federal Aid Project 132, Henry Co., involving 10,385 cu.yd. earth excav., 97 cu.yd. borrow, 1.4 cu.yd. Class "B" and 1.7 cu.yd. Class "C" concrete masonry, 380 lb. reinforcement for concrete masonry, 56,025 sq.yd. specification "C," etc. About $54,291. Noted Aug. 5.

Missouri—Until Oct. 9, by State Highway dept., Doniphan, building 14.45 mi. Doniphan-Alton Rd. (Pine-Barclay Special Rd. Dist.), Federal Aid Project 21, Ripley Co., involving 55,054 cu.yd. earth excav., 36,428 sq.yd. gravel pavement specification "C," 16.7 cu.yd. Class "B" concrete, 41 cu.yd. Class "C" concrete masonry, 1,175 lb. reinforcement for concrete masonry, 545 lin. ft. 12-30 in. vitr. clay pipe culvert, cost $50,116; also rein.-con. skew slab superstructure and 1 concrete pier, on Sta. 735 plus 90, on above project, to have two 15 ft 8½ in. spans, 18 ft. roadway, 4.9 cu.yd. Class "A," 147.5 cu.yd. Class "B" and 29.3 cu.yd. Class "C" concrete, 14,360 lb. reinforcement, $6,905.

Missouri—Until Oct. 22, by State Highway Dept., Fulton, building 18 mi. Fulton-Jefferson City Rd. (New Bloomfield Special Rd. Dist.), Federal Aid Project 97, Calloway Co., involving 79,150 cu.yd. earth and 969 cu.yd. rock excav., 21,984 cu.yd. borrow, 10,500 cu.yd. per 100 ft. overhaul, 251 sq.yd. 1 course rein.-con. pavement, 243 cu.yd. Class "B" and 93 cu.yd. Class "C" concrete masonry, 9,850 lb. reinforcement for concrete masonry, 348 lin.ft., 12-24 in. vitr. clay pipe, 79,131 sq.yd. specification "C" gravel pavement, 49,332 sq.yd. plain macadam pavement, etc., $119,757; rein.-con. slab super-structure, 4 rein.-con. pile bents and 1 temporary bridge, over drainage ditch, on Sta. 883 plus 21, to have three 15 ft. spans, 18 ft. roadway, 4.2 Class "A" and 59.2 cu.yd. Class "B" concrete masonry, 7,370 lb. reinforcement for concrete masonry, $5,198; rein.-con. skew slab superstructure and 5 concrete piers, over Middle River on Sta. 48 plus 80, both on above project, to have six 16 ft. spans, 18 ft. roadway, 13.3 cu.yd. Class "A", 86.6 cu.yd. Class "B" and 112.8 cu.yd. Class "C" concrete masonry, 10,650 lb. reinforcement for concrete masonry, etc. $8,499. Noted June 10, under "Fulton, Mo."

Missouri—Until Oct. 13, by State Highway Dept., Keytesville, building 1.13 mi. Sect. 1 State Rd. from Mussel Fork Creek westward, State Aid Project S 20.8, involving 896 cu.yd. earth excav., 37,101 cu.yd. borrow, 993 in. ft. wooden guard rail, cost $25,736; 0.6 mi. Sect. 2 State Rd. from Chariton River southeastward, State Aid Project S 20.8, both Chariton Co., 4,805 cu. yd. earth excav., 11,624 cu.yd. borrow, 2.2 cu.yd. Class "C" concrete masonry, and 3.5 lin.ft. 18 in. vitr. clay pipe culvert, $11,173. Bids will also be received at Fayette for building 1 mi. Natl. Old Trails Rd., 24 ft. wide, Federal Aid Project 95, Howard Co., 3,076 cu.yd. earth excav., 814 cu.yd. borrow, 9,387 sq. yd. Joplin chats pavement, 8.4 cu.yd. Class "B" concrete, 7.9 cu.yd. Class "C" concrete masonry, 548 lb. reinforcement for concrete masonry, 82 lin.ft. 12-15ft. vitr. clay pipe culvert, $14,459.

Missouri—Until Oct. 15 (change of date), by State Highway Dept., Sedalia, building 4.76 mi. Sedalia-Marshall Rd. (Sedalia 12 mi. Special Rd. Dist.), 24 ft. wide, Federal Aid Project 122, Pettis Co. About $57,270. Noted Sept. 23.

Ark., Siloam Springs—Until Oct. 21, by Bd. Comrs. Rd. Impvts. Dist. 5, Benton Co., at office of L. B. Kemper, secy., constructing 34.75 mi. road, involving 26 acres clearing and grubbing, 1,000 stations of fence moving, 136,000 cu.yd. earth excav., 367 cu.yd. concrete in culverts, 13,750 lb. steel bars, etc.

Tex., Jefferson—Until Oct. 6, by L. E. Hough, city clk., furnishing labor and material for 13,600 sq.yd. paving, 4,500 cu.yd. excav., 5,320 ft. tile drain, 4,775 lin.ft. curbing and guttering and 5 catch basins. H. E. Elrod Co., 320 Interurban Bldg., Dallas, engrs.

Tex., Rockport—Until Oct. 8, by F. Stevens judge Aransas Co., furnishing material and surfacing 9.51 mi. Rockport-Aransas Pass Rd., involving 20,107.3 cu.yd. mud shell, 3,061.5 cu.yd. reef shell, etc. About $60,266. F. C. Perceval, co. engr.

Tex., Tyler—Until Oct. 5, by W. R. Castle, judge Smith Co., grading and building concrete culverts and steel bridges on 2.45 mi. Highway 37 from Linsdale north, involving 18,150 cu.yd. earth excav., 273.2 cu.yd. Class "A" concrete, 5,056 cu.yd. graveling clay, 24,760 lb. structural and 9,620 lb. reinforcing steel, etc. About $45,-116. D. K. Caldwell, co. engr. Noted July 22.

Colorado—Until Oct. 11, by State Highway Dept., Denver, grading and gravel surfacing 3.97 mi. Craig-Mabelle Rd., 16 ft. wide, Federal Aid Project 107, Moffat Co., involving 23,300 cu.yd. earth and 2,000 cu.-yd. rock excav., 6,800 cu.yd. gravel, cost $53,661; 4.8 mi. Florence-Cripple Creek Rd., 16 ft. wide, Federal Aid Project 52, Teller Co., 4,900 cu.yd. earth and 7,400 cu.-yd. rock excav., $21,480; 3¾ mi. road from Wray to Schram, 16 ft. wide, Federal Aid Project 40, Yuma Co., 17,100 cu.yd. earth excav., 5,500 sq.yd. gravel, $27,174; grading 4 mi. Sect. B, Norwood Rd., 16 ft. wide, Federal Aid Project 7, Montrose Co., 23,-200 cu.yd. earth and 9,500 cu.yd. rock excav., $45,023; 6.8 mi. Kremmling-Muddy Pass Rd., 16 ft. wide, Federal Aid Project 75, Grand Co., 35,700 cu.yd., earth and 300 cu.yd. rock excav., $22,564; paving 1.27 mi. Denver-Arvada Rd., 18 ft. wide, Federal Aid Project 120, Jefferson Co., 4,500 cu.yd. earth excav., 13,400 sq.yd. concrete, $54,149; grading and shale surfacing 1.8 mi. Rifle-Meeker Rd., 16 ft. wide, Federal Aid Project 128, Rio Blanco Co., 3,600 cu.yd. earth excav., 4,800 cu.yd. shale surfacing, $15,-766. J. E. Maloney, State Museum Bldg., Denver, engr.

New Mexico—Until Oct. 14, by State Highway Dept., Capitol Bldg., Santa Fe, building 5.871 mi. road between Bernalillo and south line of Sandoval Co., Federal Aid Project 36, Sandoval Co., involving 12,-615 cu.yd. Class 1 excav., 16,213 cu.yd. Class 1 borrow, 76,493 sta. yd. overhaul, 9,-164 cu.yd 1 course gravel surfacing, 21.4 cu.yd. cement rubble masonry, 737 lin.ft. 18-30 in. corrugated metal culvert, 23.92 cu.yd. Class "A" concrete 81.8 cu.yd. Class "B" concrete in culvert walls, 10.5 cu.yd. Class "B" concrete in spillway, etc.; 15.157 mi. road between Magdalena and Datil, Federal Aid Project 42, Socorro Co., 22,333 cu.yd. Class 1 excav., 1,137 cu.yd. Class 1 borrow, 350 sta. yd. overhaul, 10,-473 mi. crowning and shaping, 11,177 cu.yd. 1 course gravel surfacing, 336 lin.ft. 18 in. corrugated metal culvert, 16.2 cu.yd. Class "B" concrete in headwalls; 8 mi. road between Lordsburg and Steins, Federal Aid Project 44, Hidalgo Co., 8,693 cu.yd. Class 1 excav., 37,739 cu.yd. Class 1 borrow, 676 sta. yd. overhaul, 9,367 cu.yd. 1 course gravel surfacing, 18.3 cu.yd. cement rubble masonry, 144 lin.ft. 18 in. corrugated metal culvert, 1874 cu.yd. Class "A" and 9 cu.yd. Class "B" concrete in spillway, 4.7 cu.yd. Class "B" concrete in headwalls, etc.; 5.599 mi. road between east end of Project 19 and Dona Ana Co. line, Federal Aid Project 45, Luna Co., 12,765 cu.yd. Class 1 excav., 413 cu.yd. Class 1 borrow, 2,431 sta.yd. overhaul on excav. (excess 500 ft.), 2,197 mi. crowning and shaping, 6,570 cu.yd. 1 course gravel surfacing, 31,536 yd.mi. overhaul on surfacing (excess 1 mi.), 11.8 cu.yd. Class "B" concrete in headwalls; 11.572 mi. road between Valmont and Escondido, Federal Aid Project 49, Otero Co., 20,802 cu.yd. Class 1 excav., 1,465 cu.yd. Class 1 borrow, 7,557 sta. yd. overhaul, 20,978 cu.yd. Caliche surfacing, 260 lin.ft. 18 in. corrugated metal culvert, 7.9 cu.yd. Class "B" concrete in headwalls, etc. L. A. Gillett, state highway engr.

Arizona—Until Oct. 9, by T. Maddock, state engr., Phoenix, paving Sect. B Phoenix-Glendale Highway, Federal Aid Project 33, involving 9,200 cu.yd. excav., 37,200 sq.yd. paving and other incidental work, and Sect. A, of above project, 10,800 cu.yd. earthwork, 37,400 sq.yd. paving and other incidental work. Alternate bids will be received on 1 course plain concrete pavement, bitulithic pavement on cement concrete and on asphaltic concrete base, bituminous concrete surface course (modified Topeka type) on plain cement concrete and on asphaltic concrete base course.

Arizona—Until Oct. 14, by T. Maddock, state highway engr., c/o Bd. Supervs. Cochise Co., (Tombstone), building Sect. 1, Douglas-Rodeo Highway, 20 ft. wide, Federal Aid Project 38, Cochise Co., involving 48,000 cu.yd. concrete, 425 cu.yd. borrow and 27,000 cu.yd. earth excav. Cost to exceed $25,000.

Cal., Ventura—Until Oct. 6, by L. E. Hallowell, clk. Ventura Co., improving 2.46 mi. South Mountain Rd., involving 91,577 cu.yd. excav., 394 cu.yd. Class "B" concrete in bridges and culverts, and 24,080 lb. reinforcing steel.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Massachusetts**—State Highway Comn., Boston, let contract paving state highway, Kingston, to Lane Constr. Corp., 37 Colony St., Meriden, $60,181.

★**Massachusetts**—State Highway Dept., Boston, let contract paving 3.793 ft. state highway, Lexington, bituminous macadam, to Hauscom Constr. Co., 70 Kilby St., Boston. About $30,000.

★**Mass., Holyoke**—City let contract repaving Sargent and Race Sts., asphalt and concrete, to D. O'Connells Sons, 480 Hampden St., $31,483.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract regulating and repaving Kingsland Ave., to Grecco Bros., 172 Russell St., $29,674; 7th Ave., to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $7,463; 57th St., to T. E. McCormick, 816 Lincoln Rd., Flatbush, $20,353; restoring and repafring where directed, to Sicilian Asphalt Paving Co., 41 Park Row, New York City, $173,750. Noted Sept. 9.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contract improving Bedford Ave., to Leonard Paving Co., 233 Bway., New York City, $80,596; Bedford Pl., Bradford St. and Crooke Ave., to Uvalde Asphalt Paving Co., 1 Bway., New York City, $8,646, $13,199 and $4,007 respectively; Bleecker St and 6th Ave., to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $3,150 and $6,012 respectively; Tillary St., to Grecco Bros., 172 Russel St., $4,414. Noted Sept. 23.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contracts improving Ferris St., Neptune and Sullivan Aves., to C. Gallagher, $33,019, $5,664 and $39,706 respectively; Ave. L, to F. Persicano, $2,877; Van Dyke St., to F. J. Gallagher, 490 Park Pl., $16,923; 3rd St., to M. J. O'Hara, $26,305; furnishing and delivering 40,000 wood paving blocks, to Amer. Creosoting Co., 17 Battery Pl., $3,480. Noted Sept. 16.

★**N. J., Newark**—Essex Co. let contracts improving Franklin Ave. in Belleville and Nutley, to Osborn & Marsellis, Belleville Ave., Montclair, $41,344 and $21,406 respectively; John and Rutgers Sts., Belleville, Belleville Ave., Glen Ridge, and Heller Parkway, Newark, to Northern Constr. Co., 75 Montgomery St., Jersey City, $152,020, $27,663, $155,067 and $30,130 respectively; Chancellor Ave. in South Orange and Irvington, to Standard Bitulithic Co., 50 Church St., New York City, $15,700 and $204,480 respectively. Noted Sept. 23.

★**W. Va., Madison**—Comrs. Boone Co. will grade 3 mi. Charleston-Logan Rd. between Kanawha Co. line and Racine. Work done by day labor under supervision of J. P. Blundon, co. engr. Noted Aug. 26.

★**S. C., Union**—Comrs. Union Co. let contract grading, draining and top soiling 5.32 mi. State Highway Project 92, to Elliott & Sims, Spartanburg, $28,623.

Ala., Decatur—Comrs. Morgan Co. received bid grading, draining and surfacing 9.17 mi. State Trunk Rd. from Albany to Hartsells, involving 10,400 cu.yd. stone macadam, 5.7 mi. road to be machined 4,000 cu.yd. earth excav., etc., from A. B. Howard & Co., 148 4th Ave., N., Nashville, Tenn., $61,742.

Streets and Roads (Continued)

★**O., Cleveland**—City let contract grading, draining and paving Chester Ave. from East 12th to East 17th Sts., to Cleveland Trinidad Paving Co., The Arcade, $26.387. Noted Sept. 9.

★**O., Columbus**—Franklin Co. let contract grading, draining and paving 1.17 mi. Sect. 1 and portion of Sect. 2 Hess Rd., 16 ft. wide, water bound macadam, to C. A. Baker, 916 Hayden Bldg., $32,445. Noted Sept. 16.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 7.329 mi. Assessment Dist. Rd. 137, 16 ft. wide, Ionia and Kent Counties, involving 6,325 cu.yd. earth excav., 22,392 sq.yd. base and 47,117 sq.yd. top course gravel surface, etc., to L. F. Seymour, Farwell, $40,006; grading and draining 9.651 mi. State Trunk Line Rd. 28-6, Sect. B, Gogebic Co., 57,380 cu.yd. earth and 2,688 cu.yd. rock excav., 12.9 acres clearing, 1,744 sq.rods grubbing, etc., to J. E. McNicholas, Marenisco, $84,841.

★**Michigan**—State Highway Dept., Lansing, let contract building .714 mi. State Trunk Line Rd. 13-17, Sect. A, Three Rivers, 20 ft. wide, involving 1,230 cu.yd. earth excav. and 8,386 sq.yd. concrete, to H. A. Hoxie, Three Rivers, $31,621. Noted Sept. 16.

★**Mich., Atlanta**—Comrs. Montmorency Co. let contract grading, draining and surfacing 3.277 mi. Sect. B, State Trunk Line Rd. 32-4, to F. H. Lond, Alpena, $55,547. Noted Aug. 26.

★**Minn., Fergus Falls**—Otter Tail Co. let contract graveling 9 mi. Federal Aid Project 159, 24 ft. wide, to M. J. Nolan, 2716 Bloomington Ave., Minneapolis. About $25,000. Noted Aug. 19.

★**Minn., Le Sueur**—Le Sueur Co. let contract building 5 mi. Federal Aid Project 199, between here and Cleveland, involving culverts, tiling and $45,000 cu.yd. excav., to Nolan Bros., 18 North 2nd St., Minneapolis. About $46,000.

★**Minn., Redwood Falls**—City let contract paving various streets, involving 36,000 sq.yd. 1 course 6 and 7 in. rein.-con., to Johnson, Drake & Piper, 912 Plymouth Bldg., Minneapolis. About $150,000.

★**Minn., St. Peter**—Nicollett Co. let contract grading 6.5 mi. County Jobs 1901, 1902, 2001 and 2005, to Webster Bros., St. Peter, $27,318.

★**N. D., Bowbells**—Comrs. Burke Co. let contract excavating, plowing and overhauling 15 mi. Federal Aid Project 77, 24 ft. wide, to Schultz Bros., Bowbells, $56,944; concrete work, to Stanley Bros., St. Cloud, Minn., $19,647.

★**Mont., Forsyth**—Rosebud Co. let contract grading and graveling 10 mi. Federal Aid Project 114, 24 ft. wide, to Schleuter Bros., Cartersville. About $64,000. Noted Aug. 5.

★**Missouri**—State Highway Dept., Bolivar, let contract building 13.864 mi. Bolinger-Springfield Rd., (Springfield Special Rd. Dist.), 24 ft. wide, Federal Aid Project 33, Polk Co., to Springfield Special Rd. Dist., Bolivar, $90,496. Noted Sept. 23.

★**Missouri**—State Highway Dept., Carthage, let contracts to Carthage Special Rd. Dist., care of A. M. Reynolds, Carthage, building 6.47 mi. Joplin-Carthage Rd., Federal Aid Project 84, Jasper Co., involving 22,258 cu.yd. earth and 6,800 cu.yd. rock excav., at $0.60 and $2. per cu. yd., 1,642 cu.yd. borrow, $0.85, 3,000 cu.yd. per 100 ft. overhaul, $0.03, 68,784 sq.yd. 1 course plain cement concrete pavement, $2.48, 216.4 cu.yd. Class "B" concrete masonry, $25., 15,209 lb. reinforcement for concrete masonry, $0.10, etc., total cost $205,981; rein.-con. slab superstructure and 2 concrete piers, on Sta. 230 plus 95, on above project, to have three 15 ft. spans, 18 ft. roadway, 11.6 cu.yd. Class "A", 47.5 cu.yd. Class "B" and 72.9 cu.yd. Class "C" concrete masonry, 6,410 lb. reinforcement for concrete masonry, $4,085.

★**Missouri**—State Highway Dept., Kennett, let contract building 8.62 mi. Dexter-Malden-Kennett Rd., 24 ft. wide, Federal Aid Project 26, Dunklin Co., to J. E. Crane, Murphreesboro, Ill., $107,283. Noted July 29.

Tex., Cameron—Milan Co. received bids improving 5.7 mi. Highway 44, C. Federal Aid Project 191, (a) involves 2 acres clearing and grubbing, grading road, 4,177 cu. yd. earth borrow; (b) surfacing road with schist and gravel; (c) building concrete drainage structures, from F. L. Tribble, Rockdale; (a and b) $26,237, J. L. Barmore, Cameron; (c) $4,063; Rice & Winder, Richmond; (a, b and c) $33,618; Cook & Arrington, Crockett; (a and b) $34,928. Work involves 5,991 lb. reinforcing steel, 4,096 cu.yd. gravel and 8,046 cu.yd. Schist surfacing, 62.19 cu.yd. Class "A," 15.12 cu. yd. Class "B" and 27.6 cu.yd. 1:2:3½ concrete.

★**Tex., Greenville**—Hunt Co. will grade, surface and build bridges and culverts on 11.14 mi. Highway 1 from Concord to Collin Co. line, Federal Aid Project 171, cost $408,654; including 10% for engineering and contingencies. Work will be done by day labor under supervision of A. J. Gates, co. judge. Noted Sept. 9.

★**Tex., Hillsboro**—Hill Co. let contract grading, surfacing and draining 13.98 mi. Highway 31 through Hill Co., Federal Aid Project 124, to Bibb & Hughes, Waco, $250,720; including material furnished by county and 10% for engineering and contingencies. Noted Sept. 23.

★**Tex., Hillsboro**—Hill Co. let contract to Bibb & Hughes, Waco, for grading, surfacing, and constructing concrete bridges and culverts on 8.5 mi. Bynum Special Rd. Dist. 10, gravel nad rock surface, $101,184; 16 mi. Abbott Special Rd. Dist., gravel on white rock base, $142,160; 8 mi. Acquilla Special Rd. Dist. 12, gravel surface, $99,572; 40 mi. Hubbard City and Mt. Calm Rd. Dists., gravel surface, $268,508.

Tex., Jasper—Jasper Co. received bids Sept. 13, grading and draining 12.48 mi. Highway 8 from Buna southeast to Newton Co. line, 24 ft. wide, from H. F. Bland, San Augustine, $62,213; J. A. Shaw, Jasper, $64,673. Noted Aug. 26.

★**Tex., Nacogdoches**—Nacogdoches Co. let contract improving 45 mi. various roads, 24 ft. wide, to Smith Bros., Crockett, $191,000. Work involves 280 acres clearing and grubbing, 200,000 cu.yd. overhaul, 350,000 cu.yd. borrow, 45,000 cu.yd. loose and 5,000 cu.yd. solid rock excav.

★**Okla., Miami**—City let contract paving 3rd Ave. Dist. between Main and H Sts., and 1 St. Dist. between H and 3rd Aves., bitulithic, to A. R. Young Constr. Co., Miami. About $44,000.

★**Colorado**—State Highway Dept., Denver, let contract grading, draining and surfacing 6½ mi. Moffat Highway, between Craig and Mabelle, 16 ft. wide, gravel, Moffat Co., to Northwestern Constr. Co., Craig, $67,736. Noted Sept. 16.

Wash., Seattle—City received bids Sept. 18, grading, et al, (1) 10th Ave., N. E., involving 27,200 lin.ft. type "A" armored concrete curb, 2,900 lin.ft. clay, side connections, 1,967 lin.ft. 8 in. clay sewer pipe, etc., (2) paving, et al, Shilshole Ave., et al., 4,500 cu.yd. earthwork and sub-grading, 2,370 lin.ft. type "A" armored concrete curb and 17,000 sq.yd. 7 in. concrete paving, (a) clay, (b) concrete, from J. N. Badolato, Builders Exch., (1a) $70,694, (1b) $70,396; J. L. Smith, Pioneer Bldg., (1a) $71,857, (1b) $71,857, (2a) $73,682, (2b) $73,682; Fiorito Bros., 6022-2nd St., N. W., (1a) $72,307, (1b) $71,542, (2a) $73,483, (2b) $73,115; S. A. Moceri, Alaska Bldg., (2a) $74,200, (2b) $74,200.

★**Wash., Seattle**—King Co. let contract paving R. A. Ballinger Rd., involving 4,700 cu.yd. earth excav. and 10,652 sq.yd. concrete to Kaiser Paving Co., Seaboard Bldg., $39,531. Noted Sept. 23.

Railways

PROPOSED WORK

Ohio—Pennsylvania Lines West of Pittsburgh, Pennsylvania Sta., Pittsburgh, Pa., plan to build 15 additional tracks, at Fairhope yards, to have 800 car capacity. W. D. Wiggins, ch. engr.

Excavation and Dredging

PROPOSED WORK

Mo., Browning—Drainage—Locust D. D. having surveys made by Jacoby Eng. Co. engrs., 528 Shukert Bldg., Kansas City, Mo., for draining 3,000 acres in Linn and Sullivan Counties.

Mo., Kirksville—Drainage—Brashear D. D., Adair Co., having surveys made for draining 3,500 acres of land. C. E. Jacoby Eng. Co., 528 Shukert Bldg., Kansas City, Mo., engrs.

Okla., Tulsa—Ditch—Tulsa Co. had plans prepared for open ditch work in Sects. 3, 4 and 5, Twp. 19, Range 12. About $60,000. Hughes Eng. Co., 310 Scott Bldg., engrs.

BIDS DESIRED

Ia., Algona—Ditches—Until Oct. 7, by Ed. Supervs. Kossuth Co., building open ditches and tile drains in D.D. 165, known as extension of D.D. 80. Sect. 1 includes 24,900 ft. open ditch, involving 936,000 cu.yd. excav. and 13,500 ft. open ditch to be cleaned, involving 181,000 cu.yd. excav.; Lateral A, 2,400 ft. open ditch, involving 32,500 cu.yd. excav. and 5,000 ft. 14 in. culvert pipe; Sect. 2, 27,890 ft. 6-26 in. tile, 15 intakes, etc. E. H. Beardsley, aud.

Ia., Atlantic—Drainage—Until Oct. 14, by C. E. Kringel, aud. Cass Co., building 12 mi. drainage ditches for straightening Seven Mile Creek and its tributaries in Bear Grove and Noble Twps. Sect. 1 involves 343,000 cu.yd. excav., Sect. 2, 45,600 cu.yd.

Ia., Nevada—Drainage—Until Oct. 12, by F. E. King, aud. Story Co., building Nevada Twp. D.D 17, including Main Branches, A, B, C, D, F, G and H, also Laterals A1, A2, A2A, C1, C2, C3, D1, D2, F1, F1A, F2, F2A and F3. Work involves 3,400 ft. 42 in. segmental block drain, 71,195 ft. 6-36 in. tile, etc.

Ia., Webster City—Drainage—Until Oct. 4, (change of date), by H. Baxter, aud. Hamilton Co., building Matilda Weimer D.D. 241, and Lydia Anderson D.D. 242. Abot $40,000. Noted Sept. 16.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Conn., Essex**—Excavation—See "Miscellaneous."

★**Ia., Clarion**—Ditch—Wright Co. let contract furnishing material building D.D. 187 Blaine and Vernon Twps., to Natl. Sewer Pipe Co., Webster City; open work, to Matthew Bros., Galt; labor on tile, to G. Walden, Goldfield; total, $53,935. Noted Aug. 5.

★**Ia., Le Mars**—Drainage—Plymouth Co. let contract improving Highway D.D. 1, to include 4 open ditches, involving 31,800 cu.yd. excav., to C. Thompson, 685 Brandeis Bldg., Omaha, Neb. Noted July 8.

★**Minn., Madison**—Ditch—Lac qui Parle Co. let contract for labor for building Co. Ditch 53, involving 50,000 ft. 6-28 in. tile, to J. O. Volden, Madison, $11,000; furnishing tile, to Watertown Tile & Constr. Co., Watertown, S. D., $15,723; hauling tile, to H. O. Carlson, Madison, $5,500.

Industrial Works

PROPOSED WORK

Me., Lisbon Falls—Worumbo Mfg. Co. plans to build rein.-con. and brick addition to factory. About $100,000. Architect not selected.

Mass., New Bedford—Whitman Mills Corp., Whitman St., soon lets contract constructing 2 story, 60 x 140 ft., brick and concrete addition to waste building, rein.-con. flooring, concrete foundation. About $75,000.

Mass., Springfield—Natl. Automobile Parking Co. plans to build 5 story, 100 x 200 ft., rein.-con. and steel garage, on Dwight St. About $500,000. T. W. Carman, 15 Temple St., vice-pres. Architect not selected.

Mass., Whitingsville—Whitin Machine Wks. plan to build 4 story, 75 x 200 ft. and rein.-con., garage fire station and storehouse. About $150,000. J. D. Leland, 185 Devonshire St., Boston, archt.

Mass., Worcester—E. A. Cowel Co., 51 Crescent St., plans to build brick and steel warehouse. About $50,000. Architect not selected.

Mass., Worcester—J. Rice, archt., 306 Main St., preparing plans for 2 story, 150 x 180 ft., brick and rein.-con. garage, rein.-con. flooring, concrete foundation, on Pleasant St. About $200,000. Owners name withheld.

Mass., Wrentham—Commonwealth of Massachusetts, State Schoolhouse Dept., Boston will have revised plans prepared and soon receive bids for 1 story, 50 x 70 ft. cold storage building and 1 story, 40 x 90 ft. industrial building, at state school, here. About $100,000. Former bids rejected. Kendall, Taylor & Co., 93 Federal St., Boston, archts. and engrs.

Conn., Hartford—Arrow Electric Co., 99 Hawthorne St., plans to build 3 story, brick, factory addition, on Capitol Ave. Buck & Sheldon, Inc., 60 Prospect St., engrs.

Industrial Works (Continued)

Conn., New Hartford—D. B. Smith & Son plan to rebuild cotton mill recently destroyed by fire. Cost to exceed $50,000.

Conn., Waterbury—Cudahy Packing Co., 592 West Main St., plans to build brick and concrete warehouse, on Sperry St. About $50,000.

N. Y., Buffalo—Natl. Lamp Co., Nela Park, East Cleveland, O., plans to build 1 story, rein.-con., brick and steel power plant, rein.-con. flooring, concrete and brick foundation, here. About $200,000. G. H. Johnson, Nela Park, East Cleveland, O., archt.

N. Y., Green Island (Troy P. O.)—Ford Motor Co., Boulevard and Woodward St., having plans prepared by Stone & Webster, engrs., 120 Bway., New York City, for factory, here. About $2,000,000.

N. Y., Rochester—Rochester Castings Corp. having plans prepared by J. F. Ancona, archt., 307 Cutler Bldg., for 1 story, 280 x 1,000 ft. foundry, concrete, brick and steel.

Pa., Johnstown—Cambria Steel Co. having plans prepared by A. S. McKee Co., archts., 2422 Euclid Ave., Cleveland, O., for 3 story, 60 x 170 ft. sintering plant, brick and steel, brick foundation. About $300,000.

Pa., Phila.—G. Taylor & Co., care of G. S. Idell, archt., 1705 Chestnut St., having plans prepared for 1 story, 60 x 200 ft., brick factory, on Kensington St.

Pa., Williamsport — McCormick Motor Cars Co. plans to build 4 story, 102 x 196 ft., concrete and steel garage, rein.-con. flooring, on 3rd and Hepburn Sts. About $250,000. Turner Constr. Co., 1713 Sansom St., Phila., archts.

D. C., Wash.—Washington Ice Mfg. Co., 3327 K St., N.W., plans to build plant on 23d and M Sts., N.W. About $200,000.

Va., Richmond—Tredegar Iron Wks., 5th St., plans to rebuild pattern and machine shop recently destroyed by fire. Loss $250,000.

S. C., Ware Shoals—Ware Shoals Mfg. Co. plans to build 3 story, 60 x 100 ft. rein.-con. and stone plant, 30 cottages, dairy and ice plants, 80 ft. rein.-con. bridge, etc. Jackson & Moreland, 387 Washington St., Boston, archts.

O., Cleveland—Globe Motors Co., c/o F. W. Staffeld, secy., State Bank & Trust Co., West 65th St. and Detroit Ave., plans to build 1 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to have 180,000 sq.ft. floor space, on Euclid Ave. and Chardon Rd. About $300,000. Architect not selected.

O., Cleveland—A. Holbeck, c/o A. D'Cefert, archt., Permanent Bldg., having plans prepared for 1 story, 74 x 138 ft., brick and steel garage, brick and concrete foundation, on East 93rd St. and Woodland Ave. About $50,000.

Ind., Frankfort—Stewart Wire Wheel Co. had plans prepared by R. Leonard, archt., Peoples Life Bldg., for 2 story, 60 x 85 ft., factory and office, brick and steel, rein.-con. flooring. About $75,000.

Ind., New Haven—Visible Pump Co., 402 Central Bldg., Ft. Wayne, plans to build a gasoline and oil pump factory, here. About $100,000. Architect not selected.

Ill., Chicago—C. G. Stevens Co., 33 South Jefferson St., plans to build 1 story warehouse on Western Ave. and 45th Pl. About $75,000. Architect not announced.

Ill., East St. Louis—East St. Louis Locomotive & Car Co. plans to build 1st unit of plant, on 150 acre site here. About $500,000. R. W. Crawford, 5483 Ellis Ave., Chicago, pres. Architect not selected.

Ill., East St. Louis—T. J. Moss Tie Co., Security Bldg., plans to build wood creosoting plant, on Cahokia Rd. along tracks of Terminal R.R. About $250,000. Private plans.

Wis., Menasha—Wentink Mfg. Co. had plans prepared by O'Keefe & Orbison, engrs., 814 College Ave., Appleton, for 1 story, 60 x 240 ft., brick and steel factory. About $100,000. Noted May 6.

Kan., Topeka—Topeka Fdry. & Iron Co., 318-322 Jackson St., plans to build foundry, machine shop and structural shop, brick. About $100,000. Architect and engineer not selected.

Kan., Wakeeney—City rejected bids received Sept. 17, building power plant and coal bunkers, etc. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs. Noted Sept. 2.

Kan., Wichita—Victory Mill & Elevator Co. having plans prepared by Sherman Eng. Co., engrs., Kansas City, Mo., for 7 story mill and elevator. About $460,000.

Kan., Wichita — Wichita Clear Vision Pump Co., 1107 East Douglas Ave., plans to build 70 x 320 ft. factory, on Harry St., between Mosley St. and Mead Ave. About $500,000. J. M. Crouse, pres. Architect and engineer not selected.

Kan., Wichita—Wichita Visible Gasoline Pump Co., 701 Gilbert St., plans to construct plant, to include machine shop and tank construction building. About $100,000. R. A. Jacobs, pres. Architect and engineer not selected.

Neb., Lincoln—Douglas Milk Co. having plans prepared by J. B. Miller, archt., 324 Little Bldg., for 4 story, 100 x 142 ft. dairy, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000.

Mo., St. Louis—Missouri Car Co., Wright Bldg., plans to build street car plant. About $250,000. L. Viterbo, dir. After Oct. 15 address T. A. Brewster, pres., Central Natl. Bank Bldg. Architect not selected.

Mo., St. Louis—Sieloff Packing Co., 4339 Natural Bridge Rd., plans to build plant on Natural Bridge Rd. and Clarence St. About $500,000. E. G. Sieloff, pres. Architect not selected.

Mo., Webb City—Rock Hill Pants & Cloth Co. receives bids about Oct. 1, building 2 and 3 story, 61 x 150 ft. and 16 x 30 ft. pants factory, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $150,000. Bucy, Miller Eng. Co., Joplin, engrs.

Ark., Ft. Smith—Harding Glass Co., Kelley Highway and North 11th St., plans to build mill construction glass plant, covering 3½ acres. About $175,000. Architect not selected.

Okla., Bruner (Tulsa P. O.)—C. Page, Sand Springs, plans to build cement plant and large crusher, 1½ mi. north of here. About $100,000. Engineer not decided.

Ont., Doon—Doon Twines Ltd., plans to rebuild factory destroyed by fire. Loss $150,000.

Ont., Ingersoll—O. E. Robinson Co. plans to rebuild evaporator on Victoria St. About $100,000.

Ont., Listowel—H. B. Morphy plans to build factory here. About $150,000. Architect not selected.

Ont., London—Beatty Bros., York St., will prepare plans for 2 story, 50 x 400 ft. rein.-con. extension to factory on Chelsea Green. About $160,000. Prviate plans.

Ont., London—Service Motor Truck Co., Wabash, Ind., soon lets contract building three 1 story, 100 x 300 ft. factories on Chelsea Green, here. About $250,000.

BIDS DESIRED

Mass., Somerset—Somerset Fdry. Co. receiving bids building 1 story, brick and steel foundry, concrete foundation. About $50,000. N. S. Chase, Borden Blk, Fall River, engr.

Mass., Somerville—New England Breakfast Food Co., 29 Newberne St., receiving bids building 3 story, 45 x 85 ft. addition to plant, concrete and steel, rein.-con. flooring, concrete foundation, on Lowell St. About $50,000. S. A. Smith, 27 School St., Boston, archt.

Conn., New Haven—Westcott & Mapes, Inc., engrs., 207 Orange St., receiving bids building 3 story, 60 x 140 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on James St., for Natl. Folding Box & Paper Co. About $100,000. Noted Sept. 2.

Pa., Phila.—Fleischman Yeast Co., 701 Washington St., New York City, receiving bids building 3 story, 36 x 124 ft., concrete and brick garage, at 1707 Vine St., here. Private plans.

Md., Baltimore—Until Oct. 1, by Amer. Can Co., Maryland Trust Bldg., constructing 4 story, rein.-con. brick and steel factory, rein.-con. flooring, concrete foundation, on Hudson and Boston Sts. About $500,000. C. Z. Treis, 120 Bway., New York City, archt. Noted Aug. 26.

Wis., Camp Douglas—Until Oct. 11, by H. C. Hengels, state military archt. and engr., 425 East Water St., Milwaukee, building 1 story, 44 x 208 ft., brick, crete and steel warehouse, rein.-con. fl ing, concrete foundation, for Wisconsin N Guard.

PRICES AND CONTRACTS AWARDE

(★Indicates award of contract)

★**N. H., Nashua**—Asbestos Wood Co., Bridge St., let contract building 1 sto 90 x 220 ft., brick addition to plant Belknap St., to D. F. Holt & Son, 282 Ma St. About $50,000.

★**Mass., Boston**—West End Credit Union c/o J. F. Krokyn, archt., 484 Blue Hill Ave Roxbury, will construct 3 story, 30 x 50 f brick, stone and steel, mercantile building concrete foundation, on Chambers St., to be used for light manufacturing purposes About $50,000. Work will be done by day labor.

★**Mass., Cherry Valley** — Chapel Mills Mfg. Co. let contract building 2 story, 43 x 112 ft. mill construction addition, concrete foundation, to E. D. Ward Co., 82 Foster St., Worcester. About $50,000.

★**Mass., Holyoke**—T. J. Lynch, 206 High St., let contract building 2 story, 60 x 75 ft., rein.-con. and brick garage, rein.-con flooring, concrete foundation, on Bowers St., to Lynch Bros. Brick Co., 206 High St. Cost between $40,000 and $50,000.

★**Mass., Shawsheen**—Amer. Woolen Co., 245 State St., Boston, let contracts building 3 story, 123 x 300 ft., storage plant, and 2 story, 64 x 130 ft. garage, rein.-con. and brick, rein.-con. flooring, concrete foundations, here, to Turner Constr. Co., 178 Tremont St., Boston. About $325,000 and $80,000 respectively.

★**Mass., Springfield**—Tait Bros., Cass St., will build 3 story, 40 x 165 ft. addition to ice cream plant, brick and steel, concrete foundation. About $60,000. Work will be done by day labor.

★**R. I., Providence**—R. T. Slade, 547 Elmwood Ave., let contract building 1 story, brick and rein.-con. garage addition, rein.-con. flooring, concrete foundation, to E. H. Bigney, 17 Custom House St. About $50,000. Noted Sept. 16.

★**R. I., Woonsocket**—Amer. Wringer Co., 91 Social St., let contract constructing 2 story, 66 x 180 ft., mechanical roll building, brick and steel, rein.-con. flooring, concrete foundation, on Pound and Clinton Sts., to P. J. Donahey Co., 21 Bell St. About $100,000. Noted Sept. 16.

★**Conn., Hartford** — Underwood Typewriter Mfg. Co., 581 Capitol Ave., let contract building 2 story, 130 x 145 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on Woodbine St., to Tidewater Bldg. Co., 16 East 33rd St., New York City. About $75,000.

★**Conn., Naugatuck**—Rubber Regenerating Co., Elm St., let contract altering several buildings and constructing 1 story, brick and steel addition to machine shop, rein.-con. flooring, concrete foundation, to E. T. Ley & Co., Inc., 499 Main St., Springfield, Mass. About $50,000.

★**N. Y., Brooklyn**—New York State Hospital Comn., Albany, let contract building 2 story, 50 x 70 ft. addition to laundry, at State Hospital, here, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to White-Johnson Co., 1133 Bway., New York City. About $450,000.

★**N. Y., Brooklyn**—Perri Contg. Co., 17 Spencer St., will build 1 story, 40 x 50 x 100 x 190 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Flushing Ave. About $50,000. Work will be done by day labor.

★**N. Y., Brooklyn**—W. R. Rosenstein, 204 New Lots Rd., will build 2 story, 100 x 100 ft. brick and steel garage, rein.-con. flooring, concrete foundation, on Willoughby Ave. near Lawrence St. About $75,000. Work will be done by day labor.

★**N. Y., Jamaica**—Scott & Williams, 366 Bway., New York City, let contract building 2 story machine shop, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Archer and Middletown Sts., here, to J. Thatcher & Son, 60 Park Ave. Brooklyn. About $50,000. Noted Aug. 26.

★**N. Y., New York**—W. S. Barrington, 191 9th Ave., let contract building 4 story, 100 x 200 ft. garage and service station, brick and steel, rein.-con. flooring, concrete foundation, on 13th Ave., to Standard Concrete Steel Co., 201 West 31st St. About $200,000.

Industrial Works (Continued)

★**N. Y., New York**—Dept. Plants & Structures, Municipal Bldg., let contract building 1 story, 100 x 120 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Delancy St., to Currie Bldg. Corp., 1708 13th St., Brooklyn. About $50,000.

★**N. Y., New York**—G. Dose Eng. Co., 43 West 27th St., will build 2 story, 100 x 200 ft., brick and steel garage and service station, rein.-con. flooring, concrete foundation, at 529 West 55th St. About $175,000. Work will be done by day labor.

★**N. Y. New York**—W. J. Flynn, 11 East 167th St., will build 1 story, 100 x 175 ft., rein.-con. brick and steel garage, concrete foundation, on Cromwell Ave. near 170th St. About $80,000. Work will be done by day labor.

★**N. Y., New York**—A. J. Goodwin, 332 East 35th St., will build 2 story, 75 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation. About $60,000. Work will be done by day labor under supervision of F. E. Vitolo, archt., 56 West 45th St.

★**N. Y., New York**—Scharlin Bros., 238 East 20th St., let contract building 4 story, 50 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 148 East 24th St., to Sobray-Whitcomb Co., 105 West 40th St. About $100,000.

★**N. Y., Sheepshead Bay** (Brooklyn P. O.)—C. A. Benoit, Jerome Ave., let contract building chemical factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Dose Eng. Co., 43 West 27th St., New York City. About $150,000. Noted Sept. 2.

★**Pa., Phila.**—Cramp Shipbuilding Co., Richmond and Norris Sts., let contract building 2 story, 60 x 120 ft., concrete and brick addition to power house. Private plans.

★**Pa., Phila.**—Orinoka Mills, Ruth St. near Somerset St., let contract building 1 story, 50 x 117 ft. boiler and power house, brick, on Steiner and Jasper Sts., to Wilson-Ruff Co., Franklin Trust Bldg. About $100,000.

★**Md., Baltimore**—Baltimore Buggy Top Co., 107 West Mt. Royal Ave., let contract building 3 story, 90 x 150 ft. addition to plant, rein.-con. and brick, concrete foundation, on Guilford Ave. near Chase St., to J. F. Kunkel, 29 South Linwood Ave. About $100,000. Noted Sept. 2.

★**Md., Baltimore**—Kennedy Corp., Fidelity Bldg., let contract building 1 and 2 story addition to iron foundry, concrete, brick and steel, concrete foundation, on Charles and Wells Sts., to Frainie Bros. & Haigley, 18 Clay St. About $100,000.

★**Md., Baltimore**—Union Fish Co., Fish Market, will build 3 story, 60 x 90 ft. service station and garage, rein.-con., brick and steel, concrete foundation, at 1419-23 Maryland Ave. About $60,000. Work will be done by day labor.

★**La., Bogolusa**—Great Southern Lumber Co., let contract building addition to paper mill plant, rein.-con. and steel, rein.-con. flooring, concrete foundation, to Stone & Webster, 120 Bway., New York City. About $250,000.

★**O., Cleveland**—Cleveland Ry., Leader-News Bldg., let contract building 1 story, 46 x 72 ft., electric sub-station, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 152d St. and St. Clair Ave., to W. I. Thompson & Son, 5103 Euclid Ave. About $100,000. Noted April 15.

★**Mich., Owosso**—Amer. Malleable Co. let contract building 1 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to H. K. Ferguson Co., Vickers Bldg., Cleveland, O. About $150,000.

★**Ill., Belvidere**—Rogers Grain Products Co. let contract building mill and grain elevator, crib construction, galvanized iron exterior, to L. Buege, 230 Boston Blk., Minneapolis, Minn. About $75,000.

★**Wis., Sheboygan**—Juul & Smith, archts., Imig Blk., let contract to H. Loesing, 914 Superior St., building 2 story, 60 and 70 x 100 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, here, for Columbia Rubber Mills, 176 16th St., Milwaukee. About $60,000. Noted Sept. 2.

★**Minn., Minneapolis**—Natl. Lamp Wks. Co., Guard Bldg., Cleveland, O., let contract building 3 story, 42 x 83 x 115 ft., mill construction warehouse, at 1200 Jackson St., N. E., here, to C. W. Lunquist & Co., 715 15th Ave., N. E. About $65,000. Owner will buy materials.

SHAFTS—NEW YORK, N. Y.

Contract No. 1

Bids were received by New York State Bridge & Tunnel Comn., & New Jersey Interstate Bridge & Tunnel Comn., Hall of Records, for constructing Canal and Spring St. shafts for Hudson River Vehicular Tunnel, from (A) T. B. Bryson, 52 Vanderbilt Ave.; (B) Booth & Flinn, Ltd., 17 Battery Pl.; (C) P. M. McGovern, 50 East 42nd St.; (D) F. L. Cranford, Inc., 149 Remsen St., Brooklyn, $969,000; (E) Rodgers & Hagerty, $1,240,000. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
330 cu.yd. excavation for sewers and pipes, except Canal St. sewer	$7.25	$9.00	$32.00
1,030 cu.yd. excavation above M.H.W. for main Canal St. sewer	6.75	17.00	41.50
840 cu.yd. excavation below M.H.W. for main Canal St. sewer	8.25	17.00	44.50
870 cu.yd. earth excavation above M.H.W. for shafts	6.75	24.00	33.00
8,330 cu.yd. earth excavation below M.H.W. for shafts	20.00	24.00	33.00
10 cu.yd. rock excavation for permanent shafts	1.00	5.00	25.00
725 cu.yd. concrete in main Canal Street sewer	18.00	20.50	30.00
2,710 cu.yd. concrete in caisson walls and floors	15.00	20.00	30.00
770 cu.yd. concrete placed in compressed air	21.00	20.00	30.00
300 bbl. mortar batches in connection with placing concrete	4.50	6.50	5.00
5 cu.yd. brick masonry	30.00	40.00	40.00
10 bbl. grout, Portland cement 1 to 1, not in compressed air	5.00	8.50	7.00
10 bbl. grout, Portland cement 1 to 0, not in compressed air	4.50	8.50	6.50
1,000 bbl. grout, Portland cement 1 to 1, in compressed air	5.75	12.50	8.00
100 bbl. grout, Portland cement 1 to 0, in compressed air	5.25	12.50	7.50
5 cu.yd. brick in asphalt mastic, in compressed air, including 1-ply fabric	60.00	71.00	53.00
10 sq.yd. waterproofing in compressed air, including layer of brick—4-ply	3.50	5.55	6.30
460 sq.yd. waterproofing in compressed air, including layer of brick—6-ply	5.00	15.00	8.15
2 tons riveted steel (except shaft caisson)	125.00	160.00	240.00
1,190 tons steel work forming part of shaft caissons	282.00	225.00	240.00
2 tons steel beams and shapes	100.00	200.00	240.00
40 tons steel rods and bars	100.00	200.00	150.00
500 lb. wire forms, special	.12	.30	.17
500 lb. wrought iron or steel pipe, except pipe for electric conduits	.06	.35	.15
100 lb. malleable iron fittings for new wrought iron or steel pipe	.20	.25	.15
100 lb. miscellaneous wrought iron and galvanized iron	.10	.15	.20
17 tons cast iron hub and spigot pipe (straight pipe)	80.00	150.00	100.00
4 tons cast iron hub and spigot pipe (special castings)	150.00	190.00	210.00
5 tons cast iron pipe (straight pipe) high pressure	100.00	120.00	110.00
2 tons cast iron pipe (special castings), high pressure	200.00	230.00	220.00
1 ton cast iron manhole and catch basin fixtures and gratings	150.00	175.00	120.00
60 lin.ft. changing 6-in. cast iron water pipe	23.50	1.70	.80
60 lin.ft. changing 12-in. cast iron water pipe	9.00	3.00	1.70
60 lin.ft. changing 16-in. high pressure cast iron pipe	16.00	4.40	3.00
60 lin.ft. changing 4-in. gas pipe	3.50	1.65	.50
60 lin.ft. changing 6-in. gas pipe	4.50	1.70	.70
60 lin.ft. changing 10-in. gas pipe	8.00	2.20	1.30
60 lin.ft. changing 12-in. gas pipe	10.50	3.00	2.80
50 det.ft. furnishing and changing ducts and conduits	.50	.28	1.00
100 lin.ft. furnishing and changing wrought-iron, steel cond. 2-in.	.50	5.40	.60
950 lin.ft. furnishing and changing wrought-iron, steel, cond. 2½-in.	.75	2.75	.75
340 lin.ft. furnishing and changing wrought-iron, steel, cond. 3-in.	1.00	7.00	1.00
100 lin.ft. furnishing and changing wrought-iron, steel, cond. 3½-in.	1.25	4.95	1.25
100 lin.ft. furnishing and changing wrought-iron, steel, cond. 4-in.	1.50	5.25	1.55
100 lin.ft. furnishing and changing wrought-iron, steel, cond. 4½-in.	1.75	6.50	1.85
50 l in.ft. furnishing and changing fibre conduit, 3-in.	1.00	3.00	1.00
100 lin.ft. furnishing and changing fibre conduit, 4-in.	1.50	5.00	1.55
60 lin.ft. changing or laying cast-iron sewer pipe, 12-in.	8.00	3.20	2.00
110 lin.ft. by-passing pipes, without trestle, 4-in.	5.50	3.45	3.00
100 lin.ft. by-passing pipes, without trestle, 6-in.	8.00	3.75	6.00
100 lin.ft. by-passing pipes, without trestle, 10-in.	13.00	6.40	10.00
100 lin.ft. by-passing pipes, without trestle, 12-in.	16.00	8.60	13.00
800 lin.ft. shifting New York Central Railroad tracks	3.50	12.00	75.00
Building and equipping engineer's field office (lump sum)	22,0000.00	20,000.00	15,000.00
20M.ft.b.m. temporary timber decking over shafts (excl. of surface restoration)	90.00	150.00	150.00
700 lin.ft. building tight board fence around shafts and park	1.00	5.00	5.00
300 sq.yd. restoration of roadways with granite block pavement	2.75	4.00	8.00
190 sq.yd. restoration of sidewalks	2.75	5.00	3.00
Extended totals	$650,000.00	$695,000.00	$941,000.00

★**S. D., Sioux Falls**—Diocesan College, c/o Bishop O'Gorman, let general contract constructing 2 story, 40 x 60 ft. service building and 60 x 60 ft. (underground) heating and power plant, rein.-con. and brick, to Carson & Smitkey, Sioux Falls. Cost to exceed $100,000.

★**Mo., Kansas City**—Evans Smith Drug Co., 524 West 5th St., let contract building 3 story, 100 x 107 ft. warehouse and 1 story, 49 x 107 ft. office, concrete and brick, rein.-con. flooring, on 26th St. and Southwest Blvd., to G. E. Bowling, Sharp Bldg. About $100,000.

★**Okla., Oklahoma**—Missouri, Kansas & Texas Ry., Ry. Exch. Bldg., St. Louis, Mo., let contract building railroad shops and round house, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, to H. D. McCoy, 107 West Henderson St., Cleburne, Tex. About $150,000. Noted Sept. 2.

★**Ont., London**—Ruggles Motor Truck Co. let contract building 2 story, 85 x 425 ft. rein.-con. and steel factory, on Dundas St., to J. Hayman & Sons, Wellington St. About $200,000.

Buildings

PROPOSED WORK

N. H., Manchester — Temple — Masonic Society of Manchester plans to build 3 story, brick and steel, on Elm St. About $150,000. W. H. Lewis, Manchester, archt.

Vt., Bellows Falls—Theatre—Perry Theatres, Inc., plan to build 2 story, 45 x 125 ft., concrete and timber, on Canal St. H. E. Mason, Keene, N. H., archt.

Vt., Brattleboro—Housing—Ft. Dummer Mills Corp., plans to build houses for workmen. About $100,000. Architect not selected.

Mass., Fall River—Memorial—City, War Memorial Comn., plans to construct memorial building on North Main St., to contain hall, clubrooms, etc. About $100,000. Architect not selected.

Mass., Holyoke—School and Convent—Perpetual Help Roman Catholic Church plans to build brick and steel, on Chestnut St. About $175,000. J. Marchand, 51 Fountain St., pastor. Architect not selected.

Mass., Linwood—School—French Roman Catholic Church plans to build 2 story, brick. About $100,000. G. Fontaine, pastor. Architect not selected.

Mass., Westfield—Hall—Town Permanent Memorial Comn., Town Hall, plans to construct Memorial Hall. About $100,000. Architect not selected.

Mass., Westfield—School—Blessed Sacrament Roman Catholic Church, 2 Princeton St., plans to build 2 story, brick and steel, on North Elm St. About $100,000. P. J. O'Malley, pastor. Architect not selected.

Mass., Worcester—Hotel—J. D. Leland, archt., 185 Devonshire St., Boston, preparing plans for 6 story, brick, steel and stone. About $1,000,000. Owner's name withheld.

Buildings (Continued)

R. I., Lincoln—Dormitory—Sayles Finishing Corp., Slater Trust Bldg., Pawtucket, plans to build 3 story, brick and steel for employees. About $100,000. J. D. Leland, 185 Devonshire St., Boston, archt.

Conn., Hartford — School—School Comn. plans to build open air school, concrete, brick and steel, at Colts Park. About $175,000. J. W. Packer, 904 Main St., chn. Architect not selected.

Conn., Meriden—Bank and Office—Home Natl. Bank, 16 Colony St., plans to build 1 and 4 story, brick, concrete, marble and steel, on Colony and Church Sts. About $350,000. Hoggson Bros., 485 5th Ave., New York City, archts.

Conn., Stamford—Store—S. S. Kresge Co., Kresge Bldg., Detroit, plans to build 2 story, brick, concrete, steel and stone, on Atlantic St., here. About $100,000. Private plans.

Conn., Storrs (Eagleville P. O.)—College—Connecticut Agricultural College plans to construct building on campus to contain women's dormitory and economic training department. About $335,000. Architect not selected.

Conn., Windsor—High School—School Comn. rejected bids Sept. 7, building 2 story, 88 x 155 ft., on Main St. Project postponed temporarily. Noted Aug. 19.

N. Y., Amsterdam—School—Bd. Educ. receives bids about Feb. 1, building 2 story, 140 x 150 ft., fireproof construction. About $334,000. H. F. Daly, Amsterdam, archt. Noted April 1.

N. Y., New York—Theatre—Carlson & Wiseman, archts. and engrs., 226 Henry St., Brooklyn, preparing plans for 2 story, brick, steel and stone, brick foundation, on Bway. and Hamilton Pl., here. About $500,000. Owner's name withheld.

N. J., Camden—Clubhouse—J. E. Fieldstein, archt., Penfield Bldg., Phila., prepared plans for 3 story, 45 x 100 ft., brick. About $100,000. Owner's name withheld.

Pa., Johnstown — Church — Trinity Lutheran Church, Pine and Hickory Sts., plans to build 2 story, 100 x 150 ft., concrete, brick and stone, on Ash and Golde Sts. About $150,000. F. B. Kinzey, member of building com. Architect not selected.

Pa., Merion—School—Bd. Educ. having plans prepared by G. E. Brumbaugh, archt., Real Estate Trust Bldg., Phila., for 2 story, 35 x 165 ft., brick, in Upper Merion. Cost to exceed $100,000. Noted June 17.

Md., Salisbury — Hospital — Peninsula Genl. Hospital, Locust and South Division Sts., receives bids in spring building brick and tile, concrete foundation. About $150,000. C. L. Reeder, Park Ave. and Saratoga St., engr., Owens & Sisco, 1605 Continental Bldg., archts.

N. C., Asheville—Hotel—J. G. Stikeleather Syndicate, Herts & Robertson, archts. and engrs., 331 Madison Ave., New York City, having sketches made for brick, steel and stone, concrete foundation here. About $1,500,000.

S. C., Ware Shoals—Housing—See "Industrial Works."

Tenn., Memphis—Hotel—Memphis Hotel Co. having sketches made by W. L. Stoddart, engr. and archt., 9 East 40th St., New York City, for brick, steel and stone, concrete foundation. About $2,500,000. G. S. Parker, mgr.

O., Akron—Y. M. C. A., 259 South Main St., having plans prepared by Harpster & Bliss, archts., Nantucket Bldg., for 3 story, 60 x 130 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Summit and Perkins Aves. About $100,000. Mayer & Valentine, Bangor Bldg., Cleveland, engrs.

O., Cincinnati — Exchange — Cincinnati, Suburban & Bell Telephone Co., 235 East 4th St., plans to construct several exchange buildings, rein.-con. and brick, rein.-con. floorings. About $500,000.

O., Cleveland—Commercial and Offices—Crowell & Little Co., 1951 East 57th St., plans to build 10 story, 150 x 170 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 13th St. and Chester Ave. About $1,250,000. Private plans.

O., Cleveland — Restaurant — C. Snyder Restaurant Co., c/o T. Lamb, archt., 1838 East 17th St., having plans prepared remodeling brick, steel and marble, on Euclid Ave., near East 17th St. About $100,000.

O., Cleveland—Sanitarium—J. D. Thellman, 6402 Franklin Ave., plans to build 3 story, rein.-con brick and steel, rein.-con. flooring, brick and concrete foundation, on State and Bean Rds. About $200,000. Architect not selected.

O., Cleveland—School—Bd. Educ. plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Orange Twp. About $300,000. L. W. Jones, Chagrin Falls, pres.

O., Cleveland—Theatre—S. Gurss, 1261 East 99th St., plans to build 1 story, rein.-con., brick and steel, rein.-con. flooring, brick ad concrete foundation, 3,000 seating capacity, on Euclid Ave. east of East 79th St. About $250,000. Architect not selected.

O., Cleveland—Central Y. M. C. A., c/o C. V. Thomas, educational secy., East 22nd St. and Prospect Ave., plans to build 8 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on East 22nd St. and Prospect Ave. About $1,000,000. Hubbell & Bemes, 4500 Euclid Ave., archts.

O., Cleveland Heights (Warrensville P. O.)—Schools—Bd. Educ. Lee Rd., having plans prepared by F. C. Warner, archt., Hippodrome Annex, Cleveland, for 4 story, 35 x 90 ft. addition, on Coventry Rd., also 2 story, with two wings, 35 x 70 ft. wings, on Lee and Fairfax Rds., rein.-con., brick and steel rein.-con. flooring, concrete and brick foundations. About $200,000 each.

O., Ravenna — Hotel — Warren Hotel Co., c/o F. E. Robinson, 537 Guardian Bldg., Cleveland, plans to build 8 story, 75 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation here. About $400,000. Mouthrop & Nichols, 5716 Euclid Ave., Cleveland, archts.

O., Westerville—Sunday School—First Methodist Church having plan prepared by W. H. Nicklas, archt., 1900 Euclid Ave., Cleveland, for 2 story, 60 x 113 ft., brick and steel, brick foundation. About $100,000.

Ind., Frankfort—Memorial Hospital—Bd. Comrs. Clinton Co. plans to build memorial hospital. About $125,000. Architect not selected.

Ind., Indianapolis—Nurses Home—City having plans prepared by W. E. Russ, archt., 313 North Pennsylvania St., for 3 story, rein.-con., brick and steel, rein.-con. flooring, on Margaret St. About $400,000.

Ill., Chicago—Film Exchange—M. Friedberg, c/o Fair Dept. Store, plans to build 6 or 8 story, 50 x 145 ft. rein.-con. on Wabash Ave. near 12th St. About $250,000. Architect not announced.

Ill., Chicago—Mercantile—A. S. Alschuler, archt., 28 East Jackson St., soon receives bids building 7 story, 126 x 170 ft. addition to mail order house, rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, on Harrison and Paulina St., for Philipsborns, 511 South Paulina St. About $1,300,000.

Ill., Chicago—Office—Republic Life Insurance Co., 108 South LaSalle St., having plans prepared for 6 story, 75 x 130 ft., steel and concrete, concrete foundation, on Washington and Sheldon St. About $250,000.

Ill., Ravinia—Club—Northmoor Country Club, care of A. S. Alschuler, archt., 28 East Jackson St., Chicago, having plans prepared for 2 story, 51 x 260 ft., rein.-con. and stucco, rein.-con. flooring, concrete foundation. About $150,000.

Wis., Delafield — Chapel — Victor Memorial Bldg. Assn. will let general contract about December or January building 1 story, 50 x 100 ft., stone memorial chapel. About $200,000. Foundation being done by day labor. R. F. Farrand, secy. Magney & Tusler, 450 Builders Exch., Minneapolis, Minn., archts.

Wis., Kenosha — Theatre — J. G. Rhode, 164 Market St., having plans prepared by C. W. and G. L. Rappe, archts., 190 North State St., Chicago, for 2 story, 95 x 165 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Main St. About $500,000.

Wis., Kohler—Office—The Kohler Co. plans to build 3 story, 60 x 250 ft. brick, steel and rein.-con., on Main St. About $250,000. W. J. Kohler, pres. Architect not selected.

Wis., Marinette—Church—St. James English Lutheran Church, 1402 Main St., had plans prepared by Brust & Philipp; archts., Bway. Bldg., Milwaukee, for 40 x 100 ft., brick and steel, concrete flooring and foundation. About $100,000. Noted May 13.

Wis., Merrill—Grade School—Bd. Ed. soon receives bids building 31 x 69 ft. a 60 x 96 ft., concrete and brick, rein.-c flooring, concrete foundation. About $1 000. Parkinson & Dockendorff, Link Bldg., La Crosse, archts.

Wis., Merrill — High School — Bd. Edu soon receives bids building 2 story, 60 x 2 ft., concrete and brick addition, rein.-co flooring, concrete foundation. About $20 000. Parkinson & Dockendorff, Linke Bldg., La Crosse, archts.

Wis., Mifflin—School—City soon receiv bids building 2 story, 47 x 79 ft., rein.-con brick and stone, brick foundation. Abou $100,000. Aasby & Schulze, North Jackson Blvd., Chicago, archts.

Wis., Milton—High School—City plans to build 4 story, rein.-con. and brick. About $200,000.

Wis., Shorewood (Milwaukee P. O.)—High School—School Bd. plans to build brick and concrete addition, rein.-con. flooring, concrete foundation. About $100,000. J. E. Williams, 172 Wisconsin St., clk. Architect not selected.

Wis., Wauwatosa—Orphanage—Lutheran Kinderheim, West Milwaukee Ave., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on West Milwaukee Ave. About $100,000. Architect and engineer not selected.

Wis., Webster—High School—Bd. Educ. having plans prepared by E. J. Hancock, archt., Lyric Bldg., Eau Claire, for high school. About $100,000.

Ia., Buckereek—School—Bd. Educ. having plans prepared by Netcott & Netcott, archts., Waterloo, for 2 story, 50 x 76 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $100,000.

Ia., Iowa City — Memorial — Iowa City Alumni Society plans to build 4 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $1,000,000. Architect not selected.

Ia., Waterloo—Hospital—Allen Memorial Hospital Assn. plans to build hospital. About $300,000. F. J. Eighmey, chn. Architect and engineer not selected.

Minn., Coon Rapids (Anoka P.O.)—School—Consolidated School Dist. plans to build grade and high school. About $100,000. Architect not selected.

Minn., St. Cloud — Church — St. Marys Church, c/o Bishop Busch, plans to build church on 8th St. About $225,000. Architect not selected.

Minn., Winona — College — St. Theresa Roman Catholic College plans to construct 2 additional buildings on campus. About $800,000. M. A. Malloy, dean.

Kan., Eldorado—Auditorium—City election Nov. 2 to vote on $100,000 bonds to build auditorium. Architect and engineer not selected.

Kan., Herndon — Monastery — Capuchin Fathers having plans prepared by Kanzor Bros., archts., Pittsburgh, Pa., for 2 story, 41 x 80 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $110,000.

Kan., Kansas City—Court House—Wyandotte Co. election Nov. 2, to vote on $1,000,000 bonds to build court house. W. Beggs, clk.

Kan., Leavenworth—Shrine Temple—Abdallah Temple Bldg. Assn. plans to build temple. About $150,000. Architect and engineer not selected.

Kan., Winchester — School — City voted $100,000 bonds to build brick school. Architect and engineer not selected.

Neb., Chadron—School—Bd. Educ. has plans prepared by E. Davis, archt. Lincoln, for 2 story, 80 x 160 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $225,000. Noted Jan. 22.

S. D., Aberdeen—Y. M. C. A., c/o R. C. Bell, secy., having plans prepared by G. F. Fossum, archt., Aberdeen, for 3 story, 48 x 142 ft. (with 42 x 78 ft. ell), rein.-con., brick and stone. About $225,000.

S. D. Rapid City—Court House—Pennington Co. having plans prepared by W. E. Hulse & Co., archt., 320 Grain Exch., Sioux City, Ia., for courthouse. Election in November to vote on $500,000 bonds for project. Noted Sept. 9.

N. D., Fargo—Club—Elks Lodge 260 plans to build 3 story, rein.-con. and brick on 8th St. and 1st Ave. N. About $250,000. Architect not announced.

Buildings (Continued)

N. D., Fargo—Home—North Dakota Children's Home Society plans campaign to raise $150,000 to construct 3 story, rein.-con. and brick, including hospital, administration building, etc. Architect not selected.

N. D., Valley City—Memorial—Barnes Co. plans election in November to vote on $200,000 bonds to construct soldier memorial building. Architect not selected.

Mo., Bogard — Memorial — City having plans prepared by F. E. Scott, archt., Carrollton, for 3 story, 60 x 80 ft., semi-fireproof. About $110,000.

Mo., Liberty—Church—Baptist Church rejected bids received Sept. 23, building 2 story, irregular shaped, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $150,000. Work will be readvertised next spring. J. H. Felt & Co., Grand Ave. Temple, Kansas City, Mo., archts. Noted Sept. 9.

Mo., St. Louis—Hospital—Jewish Hospital, 5415 Delmar Blvd., plans to build hospital on Kingshighway and Forest Park Blvd. About $1,500,000. A. Waldheim, 4522 Lindell Ave., pres. Hospital Bd. Architect not selected.

Mo., Springfield—High Schools—Bd. Educ. having plans prepared by Hawkins & Hoener, archts., McDaniel Bldg., for three 2 story, 63 x 175 ft. schools, each to have one 56 x 82 ft. wing, rein.-con., brick and stone. About $175,000 each. Noted July 1.

Ark., Little Rock—Church—Winfield Memorial Methodist Church plans to build church on 16th and Louisiana Sts. About $250,000. W. B. Hogg, pastor.

Okla., Tulsa—Hotel—Business & Professional Women's Club plans to build hotel. About $250,000. B. Skillen, pres. Architect and engineer not selected.

Col., Denver — Hospital — Presbyterian Hospital Assn. receives bids about Jan. 1, building first unit of hospital, on Grasshopper Hill. About $500,000. Fisher & Fisher, Century Bldg., archts.

Col., Ft. Collins — Clubhouse — Colorado Agricultural College receives bids latter part of October, building 2 story, 108 x 160 ft., concrete, brick, stone and steel, rein.-con. flooring, concrete foundation. About $125,000. E. Groves, 222 Foster Bldg., Denver, archt.

Que., Montreal—School—Governors of the Catholic High School receive bids in October building 50 x 110 ft. brick, steel and stone, concrete foundation, on Durocher St. About $200,000.

Ont., St. Catharines—School—Bd. Educ. plans to build school on Catherine and Maple Sts. About $250,000. A. H. Drapnell, pres.

Ont., Windsor—School—School Bd. plans to build 2 story, 180 x 200 ft. brick. About $400,000.

Man., Winnipeg—Music Hall—City Council having plans prepared by city architect for civic music hall, 5,000 seating capacity. About $200,000.

BIDS DESIRED

Mass., Arlington (Boston P. O.)—Church—Perry & McNaughton, archts., 19 Congress St., Boston, receiving bids building 1 story, 42 x 100 ft., brick and stone, concrete foundation, here, for Calvary Methodist Episcopal Church.

Mass., New Bedford—Schools—Until Oct. 13, by Bd. Educ. building 2 story, 153 x 270 ft., on Mt. Pleasant St., and 2 story, 170 x 250 ft. on Rochambeau St., brick, concrete and steel, rein.-con. flooring, concrete foundations. LaBrode & Bullard, 255 Union St., archts. Noted May 20.

Mass., Malden (Boston P.O.)—Business—W. T. Littlefield, archt., 9 Hamilton Pl., Boston, receiving bids building 2 story, 60 x 130 ft., brick, stone and concrete, rein.-con. flooring, concrete foundation, on Pleasant St., for A. B. Morgan, 175 Maple St. About $100,000. Noted Sept. 16.

Mass., Peabody—School—Until Oct. 1, by city, constructing 2 story, 100 x 100 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation, on Washington St. including assembly hall. About $100,000. McLoughlin & Burr, 88 Tremont St., Boston, archts.

N. Y., Brooklyn—Dormitory—Until Oct. 8, by Dept. Pub. Welfare, Municpal Bldg., New York City, furnishing labor and material for completing general contract, electrical and heating work, domestic hot water generator, plumbing work and gas fitting for dormitory at Kings Co. Hospital, here.

Pa., Phila.—Convent—Until Oct. 4, by J. J. Kennedy, archt., Ford Bldg., Wilmington, Del., constructing 3 story, 32 x 70 ft., stone, on Chestnut Hill, here, for Our Mother of Consolation, c/o architect. About $100,000.

D. C., Washington—Church—F. V. Murphy, archt., 1413 H St., receiving bids building 1 story, stone, rein.-con. flooring, concrete foundation, on 15th St. and Park Pl., for Sacred Heart Roman Catholic Church. About $1,000,000. Noted Aug. 12.

O., Ashtabula—Schools—Until Oct. 5, by Bd. Educ., building 2 story, 6 room grade school, also 3 story, 8 room high school, rein.-con., brick and steel, rein.-con. flooring, concrete foundations. About $150,000 and $200,000 respectively. F. C. Warner, Hippodrome Annex Bldg., Cleveland, archt.

O., Canton—Gymnasium and Auditorium—Until Oct. 15, by Bd. Educ. building 2 story, 75 x 90 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $150,000. A. Lane, clk. Thayer & Johnson, 5716 Euclid Ave., Cleveland, archt.

O., Carey—School—Until Oct. 6, by Bd. Educ. building 2 story, 97 x 100 ft., brick and concrete. About $200,000. McLaughlin & Hulsken, Savings Bldg., Lima, archts.

O., Cleveland—Bathhouse—Until Oct. 3, by city, building 2 story, 50 x 96 ft., rein.-con., brick and steel, rein.-con. flooring brick and concrete foundation, on West 14th St. and Starkweather Ave. About $100,000. J. H. MacDowell, City Hall, archt. Noted July 29.

Wis., Elk Mound—School—Until Oct. 7, by Bd. Educ., Dist. 3, building 2 story 60 x 90 ft., rein.-con. and brick. About $100,000. J. G. Brackett, clk. E. J. Hancock, Lyric Bldg., Eau Claire, archt.

Wis., Janesville—Theatre—Until Oct. 4, by M. Tullgren & Son, archts. and engrs., 425 East Water St., Milwaukee, building 1 story, 80 x 198 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on West Milwaukee St., here, for T. Saxe, 160 5th St., Milwaukee. About $175,000. Noted Sept. 2.

Wis., La Crosse — Grade School — Until Oct. 8, by Bd. Pub. Wks., building Hogan School, 2 story, 64 x 110 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, for Bd. Educ. About $100,000. O. Merman, Linker Bldg., archt. Noted Aug. 19.

Minn., Duluth—School—F. Standuhar, archt., Manhattan Bldg., receiving bids building 2 story, 110 x 150 ft., brick steel and concrete, rein.-con. flooring, concrete foundation, on 28th Ave., for Cathedral Church. About $250,000. J. T. McNichols, 211 West 4th St., pastor.

Minn., Minneapolis—Chemistry Until Oct. 6, by State Bd. Control, St. Paul, building 3 story, rein.-con., brick steel and stone, on State University campus here. About $200,000.

S. D., Presho—School—Until Oct. 15 by Bd. Educ. building 3 story, 56 x 86 ft. rein.-con. brick and stone. About $100,000. F. C. Wederath, pres. W. E. Hulse & Co., 320 Grain Exchange, Sioux City, Ia., archts. Noted July 1.

S. D., Rapid City—School—Until Oct. 7 by President of School of Mines constructing 3 story, rein.-con., brick and tile engineering building, for Bd. Regents. About $100,000. Both lump sum and cost plus proposals will be considered. I. D. Aldrich, secy. F. H. Ellerbe, 692 Endicott Bldg., St. Paul, Minn., archt.

Mo., Maryaville—High School—Until Oct. 12, by Bd. Educ. building 2 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation. About $100,000. H. D. Pampel, 404 Finance Bldg., Kansas City, Mo., archt.

Okla., Enid—Temple—Until Nov. 15, by Enid Masonic Temple Assn., 202½ West Main St., furnishing labor and material building 4 story, 100 x 150 ft., brick, rein.-con. and steel. About $325,000. R. W. Shaw, Beck Bldg., archt.

Man., Portage La Prairie—School—Until Oct. 4, by Minister of Pub. Wks., Parliament Bldgs., Winnipeg, building 1 story, 130 x 134 ft., rein.-con., brick and steel rein.-con. flooring, concrete foundation, here. About $100,000. J. N. Semmens, 509 Great West Permanent Bldg., Winnipeg, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Lewiston**—Housing—Androscoggin Mills let contract building 1 and 2 story, houses for workmen, brick and frame, to H. A. Brown, Powder House Blvd., Somerville, Mass. About $100,000.

★**Vt., Northfield**—Cross Bros. Garage Co. let contract building 1 and 2 story, 60 x 150 ft. brick and timber garage, on Union St., to R. Robidou, Northfield.

★**Mass., Lowell** — Hospital — St. Johns Hospital, 14 Bartlett St., let contract altering brick and steel hospital, to J. J. O'Connor, 298 Riverside St. Work includes tearing out entire interior, putting in new rein.-con. flooring, roof, etc. About $100,000.

★**Mass., North Beverly** (Beverly P. O.)—School—School Comm. let contract building 2 story, 100 x 100 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Conant St., to G. H. Hurd, 12 Giddings Ave., Beverly. $126,946. Noted Aug. 26.

★**Mass., South Boston** (Boston P. O.)—Headhouse—Park and Recreation Dept., let contract building 1 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at Marine Park, to J. Bowen Co., 184 Dudley St., Roxbury. About $133,000. Noted Sept. 23.

★**R. I., Providence** — Hotel — Providence-Biltmore Hotel Co., 217 Hospital Trust Bldg., let contract building 17-19 story, brick, steel and rein.-con., rein.-con. flooring, concrete foundation, on Dorrance, Eddy and Washington Sts., to Thompson-Starrett Co., 217 Hospital Trust Bldg. About $3,000,000. Noted Mar. 4.

★**Conn., Bridgeport**—Club—B. P. O. E. No. 36, 360 State St., let contract building 4 story, 53 x 61 ft. brick, concrete and steel addition, rein.-con. flooring, concrete foundation, on State St., to M. Noonan, 171 6th St., Bridgeport. About $100,000. Noted July 29.

★**Conn., Bridgeport**—Theatre—P. Dowe, 75 Fairfield Ave., let contract building 1 story, 80 x 150 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on State St., to Marsh Bros. Co., 50 Buckingham St. About $200,000. Noted Sept. 23.

★**Conn., Stamford**—Club—B. P. O. E. No. 899, West Park Pl., let contract building 1 story, brick and concrete addition, rein.-con. flooring, concrete foundation, to Vuono Constr. Co., Bank Bldg. About $100,000.

★**Conn., Versailles** — Housing—Versailles Sanitary Fibre Co. let contract building workmen's houses, 2 story, timber, concrete foundations, near plant, to H. W. Lines Co., 134 State St., Meriden. About $100,000.

★**Conn., Waterbury**—Hospital—City let contract building Isolation Hospital, 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Watertown Ave., to Tracy Bros. Co., 52 Benedict St., $144,642. Noted Sept. 23.

★**N. Y., Coney Island** (Brooklyn P. O.)—Theatre and Bath—W. Fox Associates, 715 Bway., New York City, let contract building rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 20 Surf Ave., to F. T. Ley, 19 West 44th St., New York City. About $325,000.

★**N. Y., Hawthorne**—School—H. S. Carter, 66 West 55th St., New York City, let contract building 3 story, 100 x 125 ft., brick and stone, brick foundation, here, to H. Johnson, Chappaqua. About $100,000. Noted June 3.

★**N. Y., New York**—Stores, Library and Office—Clinton Hall Assn., 13-25 Astor Pl., let contract altering brick, steel and stone, to Hegeman-Harris, 185 Madison Ave. About $265,000. Alexander Hamilton Institute, lessee.

★**N. Y., Peekskill**—School—St. Marys Community let contract building brick, steel and stone, brick foundation, to E. J. Walsh, Maple Ave. About $325,000. Noted Feb. 12.

★**Pa., Collegeville**—Library—Ursinus College let contract building 2 story, 85 x 105 ft. stone, to F. L. Hoover & Son, 1023 Cherry St., Phila. Noted July 29.

★**Pa., Nanty Glo**—Church—St. Marys Greek Catholic Church let contract building 2 story, 90 x 100 ft., concrete, brick and stone to Overdorff & Kinsey, 548 Horner St., Jonnstown. About $160,000.

Buildings (Continued)

★**N. C., Salisbury**—Bank—First Natl. Bank will construct brick and stone bank building, brick foundation. About $100,000. Work will be done by day labor. Noted June 3.

★**S. C., Graniteville**—High School—Graniteville Mfg. Co. let contract building Leaville McCampbell High School, 3 story, 68 x 175 ft. concrete, brick and tile, to E. A. Fonda, 120½ West Washington St., Greenville. About $150,000.

★**Ala., Birmingham**—Theatre—Loews Enterprises, 1492 Bway., New York City, will build brick, steel and stone, here. About $600,000. Work will be done by day labor under supervision of F. W. Lamb, archt. and engr., 644 8th Ave., New York City.

★**O., Hoytville**—School—Bd. Educ. let contract building 2 story, 80 x 135 ft., fireproof, in Jackson Twp., to J. I. Barnes, Logansport, Ind. About $115,000. Noted Sept. 9.

★**O., Springfield**—School—Bd. Educ. let contract building 2 story, 110 x 128 ft., brick and concrete, on Maiden Lane, to P. R. Yeazel, 2233 Columbus Ave., $241,745. Noted Sept. 2.

★**O., Urban**—School—Bd. Educ. let contract building 2 story, 100 x 106 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, to J. H. and C. P. Anderson, Urbana, $122,322.

★**Ind., Ft. Wayne**—Clinic—H. A. Duemling, 301 West Creighton Ave., let contract building 3 story, 57 x 83 ft., brick and stone, on South Wayne St., to H. Wehrenberg, 806 Madison St. About $100,000.

★**Wis., Wankesha**—Bank and Office—Natl. Exch. Bank, 311 West Main St., let contract building 2 story, 65 x 70 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, to Bonnet & Co., 403 Grand Ave., Milwaukee. About $100,000. Noted July 8.

Minn., Minneapolis—School—Bd. Educ. received bids building 2 story, 58 x 158 ft. rein.-con., brick and stone addition to Clinton Grade School, (a) general contract (b) heating and ventilating, from Standard Constr. Co., 1101 Plymouth Bldg., (a) $155,600; S. M. Klarquist & Son, 747 Security Bldg., (a) $169,984; J. Peterson, 3152 10th Ave. S., (a) $173,000; Bjorkman Bros., 712 South 10th St., (b) $41,399; Conner Bros. Plumbing & Heating Co., 711 6th Ave., N., (b) $42,819; Western Heating Co., 13 East 36th St., (b) $43,148.

S. D., Mitchell—Auditorium—City received bids building 1 story (70 ft. high), 182 x 300 ft. rein.-con. and brick, on North Main St. and 6th Ave., from M. A. Floyd Co., 535 Andrus Bldg., Minneapolis, Minn., $423,000 (cost including mechanical equipment). $423,000; Martin Constr. Co., 82 West Washington St., Chicago, (cost plus outside mechanical bid) $454,000. G. L. Rapp, archt., 190 North State St., Chicago, will revise specifications and above bidders will refigure to reduce cost. Noted Aug. 5.

★**S. D., Sioux Falls**—Dormitory—Diocesan College, c/o Bishop O. Gorman, let general contract building 3 story, 40 x 450 ft., rein.-con. and brick, to Carson & Smitkey, Sioux Falls. Cost to exceed $100,000.

★**Mo., Kansas City**—Office—See "Industrial Works."

★**Okla., Miami**—School—State Bd. Pub. Affairs, Oklahoma, let contract building 3 story, 60 x 130 ft. addition to school of mines, here, concrete and brick, rein.-con. flooring, concrete foundation, to Kuehke-Schaffer Constr. Co., Oklahoma. About $100,000. Noted June 3.

Col., Denver—High School—City School Bd. and Denver Co. received (general contract) bids Sept. 15, building 2 story, 125 x 350 ft., rein.-con., brick and steel, concrete foundation, on block bounded by South Washington and South Pearl Sts., Beard and Cedar Aves., from P. J. Sullivan & Co., Denver, $416,000; Seerie & Varnum, Interstate Trust Bldg., $417,000; plumbing and heating work, from J. F. Van Daniker, 730 19th St., $75,000; Johnson-Davis Plumbing & Heating Co., Denver, $90,000. Noted Aug. 5.

Col., Denver—High School—City School Bd. and Denver Co. received (general contract) bids Sept 15, building Morey Jr. High School, 2 story, 158 x 340 ft., rein.-con., brick and steel, concrete foundation, bounded by 13th and 14th Aves., Emerson and Clarkson Sts., from J. R. McDonald, 2205 Forest St., $427,342; A. Olson, Bank Blk., $431,650; C. J. Dunn, 1328 Inca St., $432,862; heating work, from McCarty-Johnson Heating Co., 1440 Curtis St., $89,031; plumbing work, from Johnson-Davis Plumbing Co., Denver, $38,438. Noted Aug. 12.

★**Ont., London**—Hospital—Daughters of the Empire let contract building 3 story, 100 x 280 ft. brick and stone on Ottaway Ave., to J. Putherbough, 272 Regent St. About $250,000. Noted Sept. 2.

★**Ont., London**—Hospital—Hospital Comn., Ottawa, let contract building 2 story, 50 x 400 ft., brick, on Westminster St., here, to Kingston Constr. Co., 186 Brook St., Kingston. About 200,000.

BRIDGE AND EMBANKMENT—PROVIDENCE, R. I.

Bids were received by Water Supply Board, Sept. 15, for constructing Daniels Pike Bridge and embankment around Scituate Reservoir, Contr. 13, from (A) Thomas F. McGovern, 95 Main St., Southbridge, Mass.; (B) W. V. Polleys & Co., 217 Turk Head Bldg.; (C) McKinnon Constr. Co., 70 Water St., East Providence; (D) Collins Constr. Co., Andover, Mass., $58,450; (E) Briggs Eng. & Constr. Co., 75 Westminster St., $67,355; (F) Hynes-Haley, 15 Westminster St., $70,752; (G) Bowerman Bros., 230 Industrial Trust Bldg., $71,710; (H) W. H. Hamlyn & Son, Inc., 35 Greenwich St., $73,327; New England Foundation Co., Inc., 70 Kilby St., Boston, $74,468; John A. Lawson, Pontiac, $85,920. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
2,000 cu.yd. excavation	$5.50	$4.50	$3.5[illegible]
5,000 cu.yd. borrow	1.40	1.75	2.7[illegible]
1,000 cu.yd. compacting portions of embankment	.80	1.00	3.4[illegible]
700 cu.yd. concrete in foundations, walls and abutments	19.00	18.00	13.80
180 cu.yd. concrete in bridge	20.00	40.00	13.80
1,300 bbl. Portland cement	5.75	6.00	10.00
20 cu.yd. dry rubble paving	15.00	15.00	6.90
100 cu.yd. riprap	3.50	8.00	5.33
850 lin.ft. stone guard walls	4.00	6.00	5.20
25,000 lb. steel and iron	.075	.10	.12
Safeguarding traffic and removing structures and trees (lump sum)	2,500.00	1,000.00	500.00
Extended totals	$51,600	$56,050	$58,10[illegible]

HIGHWAY—MONTANA

Bids were received by State Highway Comn., Helena, for constructing 17.001 mi. Yellowstone Trail, Fallon Co., from (A) Schleuter Bros., Carterville; (B) Stevens Bros., St. Paul, Minn.; (C) J. E. Hilton, Sheridan, Wyo., (D) Chinook Eng. & Contg. Co., Chinook. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
72,348 cu.yd. common excavation	$0.50	$0.50	$0.65
39,285 sta.yd. overhaul	.04	.04	.04
17,786 cu.yd. type "A" scoria surfacing	3.25	3.30	3.50
676 lin.ft. 18-in. corrugated iron pipe	3.00	3.00	4.00
418 lin.ft. 24-in. corrugated iron pipe	5.75	3.80	5.00
71.73 cu.yd. Class "A" concrete	35.00	40.00	55.00
117.44 cu.yd. Class "B" concrete	33.00	40.00	55.00
11,208 lb. reinforcing steel	.12	.12	.13
9.11 M.ft.b.m. lumber	100.00	100.00	25.00
384 lin.ft. piling	1.50	2.00	2.00
10% for engineering and contingencies	$10,920	$11,065	$12,941
Extended totals	120,119	121,711	142,352

Federal Government Work

BIDS DESIRED

N. Y., Buffalo—Remodeling and Repairing Custom House and Post Office—Until Oct. 26, by Treas. Dept., Wash., D. C., remodeling and repairing, here. J. A. Wetmore, acting superv. archt.; advertised in this issue.

N. Y., Tompkinsville—Steel Buoys—Until Oct. 14, by Superintendent of Lighthouses, furnishing 83 steel buoys of various types and sizes, some with bells and whistles, some with superimposed skeleton steel towers and majority with bottom counterweight iron castings.

N. Y., West Point—Hospital—Until Oct. 25, at office of Quartermaster, building cadet hospital.

D. C., Wash.—Foundations and Coping or Reflecting Pool—Until Oct. 23, by Col. Ridley, Pub. Bldgs. & Ground, building rein.-con., concrete or composition pile foundations and coping for reflecting pool, in front of Lincoln Memorial. About $85,000.

D. C., Wash.—Office and Laboratory—Spec. 4301—Until Oct. 15, by Bureau Yards & Docks, Navy Dept., building at Naval Experimental and Research Laboratory, at Bellevue, here. C. W. Park, ch.; advertised in this issue.

Va., Hampton Roads—Seaplane Runway—Spec. 4267—Until Oct. 13, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building at Naval Operating Base (air station), here; $10 deposit required for plan and spec. Noted Sept. 16.

La., New Orleans—Mine Storage Building—Spec. 4253—Until Oct. 20, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building mine storage building and shell house at Naval Sta., here. C. W. Parks, ch.; advertised in this issue.

Col., Ft. Lyon—Concrete Pavement, etc.—Spec. 4257—Until Oct. 20, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building concrete pavement and relocking pipe line, here; $10 deposit required for plans and spec.

Arizona—Road Work—Until Oct. 4, by U. S. Dept. Agriculture, Bureau Pub. Rds., 218 Luna Stickler Bldg., Albuquerque, N. M., building 10.02 mi. Salt River-Pleasant Valley, Sect. 2-C Project, 20 ft. wide, located within Tonto Natl. Forest, Gila Co., involving 25 acres clearing and grubbing, 59,087 cu.yd. common earth and 4,767 cu. yd. rock excav., etc. Work to be completed within 200 days.

Cal., San Diego—Elevators—Spec. 4285—Until Oct. 6, by Bureau Yards & Docks, Navy Dept., Wash., D. C., furnishing and installing 6 electric elevators in fleet supply storehouse, here.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Pa., Phila.—Concrete Foundations for Turrets and Crane Track—Spec. 4299—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids building at Navy Yard, here, from Arundle Corp., 409 Finance Bldg., $214,000, (complete work Mar. 15); Hyde & Baxter, 1311 G St., N. W., Wash., D. C., $248,477, (170 days). Noted Sept. 16.

D. C., Wash.—Electric Traveling Cranes—Spec. 4239—Bureau Yards & Docks, Navy Dept., received bids Sept. 22, delivering 40 ton electric traveling bridge cranes for shipbuilding slips at Navy Yards, at Norfolk, Va., Phila., Pa., and New York, N. Y., (1) work complete, from Niles, Bement, Pond, 111 Bway., New York City, (1a) $249,800 (180 days), (3a) $20,000 (180 days), (4a) $2,500 (270 days), (5a) $5,000 (360 days), (6a) $15 and expenses; Cleveland Crane & Eng. Co., Wickliffe, O., (1a) $249,950 (180 days), (2a) $249,950, (3a) $700, (6a) $15; Heyl & Patterson, 50 Water St., Pittsburgh, Pa., (2a) $261,150 (220 days), (3a) $15,450, (alternated bid, $41,150), (6a) $20 per day. Noted Sept. 16.

Va., Quantico—Water Supply Main—Spec. 4200—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Sept. 22, building at Marine Barracks, here, (1) work complete, from Wingo & Deaner, 902 Park Ave., Richmond, (1) $77,181 (100 days), (2) $46,415, (3) $54,501, (4a) $5.06, (4b) $5.35, (4c) $5.80, (5) $2.50, (6) $10.

Federal Government Work (Continued)

$90; B. Pizzamento, Hyattsville, Md., (1) $7,556 (310 days), (2) $46,444, (3) $53,-56, (4a) $5.70, (4b) $6, (4c) $6.40; Newport Contg. & Eng. Co., Silsby Bldg., Newport News, (1) $82,889 (210 days), (2) $45,981, (3) $53,588, (4a) $5.40, (4b) $5.80, (4c) $6.04, (5) $2, (6) $3, (7) $80. Noted Sept. 16.

Ga., Columbus—Buildings—Major Moeller, War Trade Bd. Bldg., Constr. Div., War Dept., Wash., D. C., received bids Sept. 7, constructing 197 buildings at Camp Bennings, here, (1) work complete, from Selden-Breck Constr. Co., Fullerton Bldg., St. Louis, Mo., (1) $823,441, (2) $17,909, (3) $80,407, (4a) $1.25, (4b) $40, (4c) $60 (200 days); Stang & Mitchell, Phila., Pa., (1) $809,000, (2) $16,000, (3) $8,000, (4a) $3, (4b) $40, (4c) $50 (400 days); Northeastern Constr. Co., 101 Park Ave., New York City, (1) $935,000, (2) $20,000, (3) $45,000, (4a) $2, (4b) $30, (4c) $32 (300 days). Noted Sept. 23.

★**La., New Orleans**—Levee Work—Fourth Mississippi River Dist. let contract for following levee work, Atchafalaya Levee Dist. (New Texas Levee), to O. O. Ogden, Roumain Bldg., Baton Rouge, 148,-000; Barataria Levee Dist., Augusta Levee, to P. M. Adenna, City Price, $5,400; Lake Borgne Levee Dist., St. Thomas Church Levee, to C. Henritzy, New Orleans, $13,-419; Atchafalaya Levee Dist., Solitude Levee, also Ponchartrain Levee Dist., Cornland Levee, to Lower Coast Constr. Co., 122 Chartes St., $86,700 and $80,670 respectively.

★**La., New Orleans**—Rock—Mississippi River Comn., 4th Dist., let contract furnishing 10,000 tons rock, to Little Rock Granite Co., Little Rock, Ark., $37,000; 10,-000 tons, to Big Rock Stone & Constr. Co., 111 Center St., Little Rock, Ark., $13,500; 6,000 tons, to L. F. Alexander, Audubon Bldg., $40,020.

★**Tenn., Memphis**—Return Flue Boilers and Steel Hull—Mississippi River Comn., 1st and 2nd Dists., let contract furnishing 5 return flue boilers for U. S. S. Chisca, to C. Hegewald Co., State and Railroad Sts., New Albany, Ind., $14,529; steel hull for same, to Dubuque Boat & Boiler Wks., 3rd St. Extension, Dubuque, Ia., $54,000. Noted Aug. 5.

★**Tenn., Nashville**—Barges—U. S. Dist. Engineer, 4th and 1st Natl. Bank Bldg., let contract building 4 steel barges, C. Ward Eng. Wks., South Side, Charleston, W. Va., $66,000. Noted Sept. 23.

★**Minnesota**—Road Work—Bureau Pub. Rds., Post Office Bldg., Minneapolis, let contract building 15 mi. Natl. Forest Rd., Project in Minnesota Natl. Forest, Cass Co., to Latvalla, Lake & Lidberg, Grand Rapids, $143,157.

★**Ore., Marshfield**—Double Quarters and Post Office—Spec. 4289—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building double quarters for operators at Naval Radio Station, and remodeling post office, here to P. M. Tully, North Bend, $8,395 (90 days). Noted Sept. 23.

★**Wash., Puget Sound**—Double Radio Quarters—Spec. 4290—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Naval Radio Sta., here, to W. T. Butler, 527 Central Bldg., Seattle, $6,660 (98 days). Noted Sept. 23.

★**Wash., Seattle**—Balloon Stations—U. S. Engineers office let contract constructing steel and frame balloon stations, 150 ft. long, 50 ft. high, with 3 service buildings, to A. W. Quist & Co., Hoge Bldg. About $200,000.

★**Alaska-Ketchikan** — Dormitory — Spec 4279—Pub. Wks., Puget Sound, Wash., let contract building at Naval Radio Sta., here, to Brown & Soles, Ketchikan, $10,-510 (75 days). Noted Sept. 23.

Miscellaneous

PROPOSED WORK

Heating and Lighting System—Jamestown, N. Y.—Bd. Park & City Planning Commrs. having plans prepared for repairing, heating and lighting system at Fenton Homestead. About $25,000. I. S. Burns, secy.

Bulkhead and Jetties—New York, N. Y.—Dept. Parks, Municipal Bldg., rejected bids Sept. 9, repairing bulkheads and jetties at Jacob Riis Park, Neponsit, Queens Boro. Work will be readvertised. Noted Sept. 2.

Docks, etc.—Newark, N. J.—Dept. Streets & Pub. Impvts., City Hall, plans to build docks, etc., along Newark Bay. About $104,100.

Cast Iron Water Pipe—Kenosha, Wis.—Common Council appropriated $15,000 to purchase c. i. water pipe. B. C. Brennan, city engr.

Ornamental Lighting System—Roundup, Mont.—See "Streets and Roads."

Culverts—St. Joseph, Mo.—State Highway Dept., St. Joseph, rejected bid received Aug. 20, building culverts on 20.02 mi. Sect. B., St. Joseph-Atchison Rd., Federal Aid Project 49, Buchanan Co. About $29,657. Noted Sept. 9.

Park Improvement—Belton, Tex.—City voted $25,000 bonds to improve parks.

Elevator—Oklahoma, Okla.—Oklahoma Terminal Elevator Co. plans to build 62 x 150 ft., elevator, 125,000 bu. capacity, rein.-con. and steel, rein.-con. flooring. About 3600,000. P. L. Jackson, secy. Architect not selected.

Transmission Line—Sand Springs, Okla.—Sand Springs Light, Heat & Power Co. plans to build 10 mi. high voltage transmission line, on south side of Arkansas River, from power house here to Tulsa. Address C. Page, pres.

Dock—Vancouver, B. C.—Dock Comn. plans to build platform dock, 465 ft. long, 50 ft. wide, with railroad trestle to parallel dock. About $64,280.

BIDS DESIRED

Stone Crusher—Stone Crusher—Avon, N. Y.—Genessee Valley Sand & Gravel Co. receiving bids for stone crusher (any make). T. Flynn, purch. agent.

Heating Apparatus, etc.—Brooklyn, N. Y.—Until Oct. 4, by C. B. J. Snyder, supt. School Bldgs., Bd. Educ., Municipal Bldg., New oYrk City, installing heating and ventilating apparatus, also temperature regulation apparatus, etc., for additions to and alterations in P. S. 73, Melbougal St. and Rockaway Ave., and P. S. 144, Howard Ave. between Prospect Pl. and St. Marks Ave., here; repairing and altering heating and ventilating apparatus, etc., in P. S. 5, 94, 104, 131, 164 and 168, Bay Ridge and Manual Training High Schools, here, and in P. S. 84, Queens Boro.

Limestone Dust—New York, N. Y.—Until Oct. 7, by H. H. Curran, pres. Manhattan Boro., furnishing and delivering 2,000 ton limestone dust.

Pavilions—Randalls Island (New York, P. O.), N. Y.—Until Oct. 7, by Dept. Pub. Welfare, Municipal Bldg., New York City, furnishing labor and material altering and repairing Tredgold and Nightingale Pavilions, here.

Stone Crusher—Rochester, N. Y.—C. C. Peck, 721 E & B. Bldg., receiving bids for 1 medium-size rotary stone crusher.

Steam Shovel — Waco, Tex. — Harrison constr. Co., 1312 Amicable Life Bldg., receiving bids for ¾ or ⅞ yd. steam shovel.

Dry Dock—Esquimalt, B. C.—Until Dec. 9, by Dept. Pub. Wks., Ottawa, Ont., building concrete dry dock, 4,150 ft. long from outer caisson stop to head, width of entrance 125 ft. on sill and 135 ft. at coping head. About $2,500,000. E. Lafleur, Dept. Pub. Wks., eng.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Bulkhead—South Boston, (Boston P.O.), Mass.**—Boston Molasses Co., 175 Milk St., Boston, let contract building rein.-con. bulkhead on on First St. and Farragut Rd., to Aberthaw Constr. Co., 27 School St., Boston. About $50,000.

★**Coal Pocket—Bridgeport, Conn.**—Summerill Tube Co. will build coal siding pockets, 200 ton capacity, concrete and steel.

★**Shipyard Additions — Essex, Conn.** — Dauntless Shipyard Inc. let contract constructing yacht basin, marine railway, storage sheds, locker building, also dredging in North Cove on Connecticut River, to T. A. Scott Co. Inc., 292 Pequot Ave., New London. About $50,000.

★**Conduit System—New Britain, Conn.**—City will build 10,000 lin.ft. vitr. hollow tile and wood fiber conduit on West Main St. About $25,000. Work wil be done by day labor. Noted Sept. 16.

Rapid Transit—New York, N. Y.—Transit Comn., 49 Lafayette St., received bids Sept. 21, rebuilding portion of Sect. 3, Route 33, Bway.-4th Ave., Rapid Transit R.R., from Booth & Flynn, 17 Battery Pl., $521,365; Underpinning & Foundation Co., 290 Bway., $560,000. Noted Sept. 9.

★**Shafts—New York, N. Y.**—New York State Bridge & Tunnel Comn. and New Jersey Interstate Bridge & Tunnel Comn., Room 616, Hall of Records, Manhattan Boro., let contract building Canal and Spring Sts. shafts, to T. B. Bryson, 52 Vanderbilt Ave., (for Holbrook, Cabot & Rollins), $650,000. Noted Sept. 23.

Trucks, etc.—N. Y., New York—Bd. Purchase, Municipal Bldg., received only bid Sept. 27, furnishing and delivering gasoline motor driven trucks, from White Motor Co., $10,987; cable, from Hazard Mfg. Co., 533 Canal St., $2,255; Safety Insulated Wire Co., 114 Liberty St., $2,365; Okinite Co., $2,787. Noted Sept. 23.

★**Stand-East Orange, N. J.**—City let contract building one-half of concrete stand, to Salmond Bros., 526 Elm St., Arlington. About $48,000.

★**Foundations—Elizabethtown, Pa.**—Masonic Home let contract building 12 x 50 ft., 44 x 78 ft. and 36 x 110 ft. stone foundations for home, to Lucas-Peters Co., 3537 North 15th St., Phila. Cost to exceed $25,-000. Noted Aug. 19 under "Buildings."

Fire Alarm Equipment—Baltimore, Md.—City received only bid Sept. 8, furnishing, delivering and installing fire alarm telegraph equipment, etc., from Gamewell Fire Alarm Telegraph Co., 70 East 45th St., New York City, $99,739. Noted Sept. 2.

★**Purifiers—New Orleans, La.**—New Orleans Gas Light Co., Baronne and Common Sts., let contracts erecting three 12 x 36 x 36 ft. steel purifiers and 1 P. & A. extractor and washer, also remodeling two 11 ft. water gas sets, to include installing 2 new generators, to Western Gas Constr. Co., Buchanan, Holt and Winter Sts., Ft. Wayne, Ind. About $100,000 and $35,000 respectively.

WORK appears to be steady at the present time, judging from the number of proposals invited from week to week.

This week bids are wanted on 126 jobs; last week on 128, and the week before that on 165; all classified as follows:

	Our Issue of Sept. 2	Sept. 9	Sept. 16
Water-Works	4	6	4
Sewers	12	6	13
Bridges	5	7	16
Streets and Roads	39	33	43
Railway	1	1	—
Excavation and Dredging	7	14	8
Industrial Works	5	5	10
Buildings	23	18	29
Federal Gov't	20	20	17
Miscellaneous	11	18	25

Are you getting your share of this work?

OFFICIAL PROPOSALS

Bids: Oct. 13.

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORK
Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Wednesday, October 13th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, and Chapters 402 and 698 of the Laws of 1920, as follows:

—1—

TERMINAL CONTRACT No. 79

For driving foundation piles for the proposed grain elevator, for constructing a bulkhead wall along Henry Street slip, and for dredging the Henry Street Basin at Gowanus Bay, New York City.

Contract plans, sheets 1 to 5, inclusive.

—2—

TERMINAL CONTRACT No. 80

For constructing concrete foundation piers for the proposed grain elevator on the Barge canal terminal pier at Oswego.

Contract plans, sheets 1 and 2.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., at the canal office, Spaulding's Exchange, Buffalo, N. Y., and at the office of the Superintendent of Public Works, Terminal Warehouse, Pier 6, East River, New York City.

Copies of detailed plans or drawing may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

Theright is reesrved to reject all proposals and readvertise and award the contract in the regular manner if in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.

September 10th, 1920.

Bids: Oct. 5.

Construction of Highway

STATE OF MARYLAND
STATE ROADS COMMISSION
Baltimore, Md.

Sealed proposals for building four sections of State Highway, as follows:

Harford County Contract No. H-26: One section of State Highway along the Philadelphia road from the Little Gunpowder fall toward Aberdeen, for a distance of 3.00 miles. (Concrete.)

Talbot County, Contract No. T-12. One section of State Highway on the Easton-Claiborne road from Lipscomb's Gate to Royal Oak for a distance of 3.00 miles. (Concrete.)

St. Marys County, Contract SM-14: One section of State Highway from Morganza toward Colton for a distance of 5.00 miles. (Gravel.)

Frederick County, Contract F-27A: One section of State Highway from Frederick Jct. to Hopeland for a distance of 1.79 miles. (Concrete Surfacing only.)

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 m. on the 5th day of October, 1920, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment of $1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred ($500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 20th day of September, 1920.

J. N. MACKALL, Chairman.
L. H. STEUART, Secretary.

Bids: Oct. 11.

Centrifugal Pumping Unit

DEPARTMENT OF PARKS & PUBLIC PROPERTY (DIVISION OF WATER)
Allentown, Pa.

Sealed proposals will be received by the undersigned at his office Room 301, Central Fire and Police Station, up to 9 a.m., Monday, October 11th, 1920, for the furnishing and installation of one (1) 750 H.P. Steam Turbine, with Reduction Gears, one (1) twelve (12) million gallon centrifugal pumping unit, one (1) 500 H.P. A.C. motor and one (1) three (3) stage seven (7) million gallon centrifugal pump, together with other appurtenances, as called for under specifications. These units are to be erected at the Pumping Station in the City of Allentown Pa.

Certified check required $1,000.00. A bond for an amount equal to fifty (50) per cent of the contract price is required of the successful bidder. All bids are to be enclosed in sealed envelopes and endorsed "Proposals for Pumping Units."

Specifications, plans and blank forms of proposals may be had upon application at the office of the Department of Parks and Public Property, Division of Water.

The City reserves the right to reject any or all bids.

MALCOLM W. GROSS,
Mayor.

Bids: Oct. 13.

Sanitary Work

Ossining, N. Y.

Sealed proposals for Sanitary Work, Sewerage and Water Supply Systems, Sing Sing Prison, Ossining, N. Y., will be received by Charles F. Rattigan, Superintendent of State Prisons, Capitol, Albany, N. Y. until 12 o'clock noon on Wednesday, October 13, 1920, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent (5%) of the amount of the proposal. The contractor to whom the award is made will be required to furnish surety company bond in the sum of fifty per cent (50%) of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of Specification No. 3610. The right is reserved to reject any or all bids. Drawings, and specifications may be examined and inspected at the Office of the Superintendent of State Prisons, Capitol, Albany, N. Y., at the Office of the Warden of Sing Sing Prison, Ossining, N. Y., at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

Dated: September 16, 1920.

Bids: Oct. 13.

Reconstruction of Pavements

PENNSYLVANIA STATE HIGHWAY DEPARTMENT
Harrisburg, Pa.

Sealed proposals will be received at the State Capitol until 10 a.m. October 13, when bids will be publicly opened and scheduled and contracts awarded as soon thereafter as possible for the reconstruction of the following pavements: 3,606 lineal feet of One Course Reinforced Concrete in Allegheny County; 26,106 lineal feet of One Course Reinforced Concrete in Beaver County; 3,641 lineal feet of either One Course Reinforced Concrete or Vitrified Brick in Beaver County; 4,375 lineal feet of either One Course Reinforced Concrete or Vitrified Brick in Beaver County; 11,097 lineal feet of One Course Reinforced Concrete and Hillside Vitrified Brick in Beaver County; 4,168 lineal feet of One Course Reinforced Concrete in Blair County and Huntingdon County; 7,453 lineal feet of One Course Reinforced Concrete in Bucks County; 8,917 lineal feet of One Course Reinforced Concrete in Chester County; 4,265 lineal feet of either Bituminous Surface Course and Hillside Vitrified Brick on a Concrete Foundation or One Course Reinforced Concrete in Clinton County; 6,253 lineal feet of One Course Reinforced Concrete in Erie County; 25,061 lineal feet of One Course Reinforced Concrete in Erie County; 14,400 lineal feet of One Course Reinforced Concrete in Indiana County; 4,459 lineal feet of Bituminous Surface Course on a Concrete Foundation in Luzerne County; 2,835 lineal feet of Bituminous Macadam on a Broken Stone Base in Lycoming County; 45,512 lineal feet of One Course Reinforced Concrete in Montgomery County; 6,317 lineal feet of One Course Reinforced Concrete and Hillside Vitrified Brick in Northampton County; 2,998 lineal feet of One Course Reinforced Concrete in Somerset County; 22,845 lineal feet of One Course Reinforced Concrete and Hillside Vitrified Brick in Washington County; 16,137 lineal feet of One Course Reinforced Concrete in Washington County; 10,202 lineal feet of either Bituminous Surface Course on a Concrete Foundation or One Course Reinforced Concrete in York County. Bidding blanks and specifications may be obtained free and plans upon payment of $2.50 per set upon application to State Highway Department, Harrisburg. No refund for plans returned. They can also be seen at office of State Highway Department, Harrisburg; 1001 Chestnut Street, Philadelphia, and 119 Federal Street, N. S., Pittsburgh, Pa. LEWIS S. SADLER, State Highway Commissioner.

CONSTRUCTION NEWS

UPS AND DOWNS OF THE MARKET

A number of changes shown this month in various cities is adjustment following the freight increases.

PIG IRON—General advance since last month.

STEEL RAILS—Price of standard rails unchanged. Makers of light rails are meeting with keener competition and fewer orders. Our lower limit of prices for light rails has been advanced 43 cents per 100 lb in Pittsburgh, with an upper limit the same as in Chicago.

TRACK SUPPLIES—Pittsburgh quotations the same. Reduction in price of standard spikes in Chicago; readjustment of prices of track bolts and standard-section angle-bars. Bolts and bars up in San Francisco. Prices of railway ties unchanged.

PIPE—No change in discount list for iron and steel pipe since last month. Mills sold ahead on lap-weld pipe for several months, with almost the same conditions prevailing for butt-weld. National Tube Co. reports production in excess of shipment. In the case of sewer pipe, New York prices are double those a year ago. We show an increase also in San Francisco, New Orleans, Atlanta and Baltimore and Detroit. Prices of clay drain tile advanced twice in San Francisco (last advance effective Sept. 15), present prices being much in excess of those recently published. General advance in cast-iron pipe to take care of freight increases.

WOOD BLOCKS—Down in Minneapolis; up in New Orleans. A very large producer in the New York district reports no change of prices, stating further that though the cost of lumber has decreased slightly the price of oil is advancing to an extreme figure. Where the "maintenance-of-way" oil once sold for 13c. per gal., present price is 31c.

CONCRETING MATERIALS—There are a number of advances in the price of sand and gravel, notably in Detroit, Denver, Chicago, Minneapolis and New Orleans. Crushed stone up in Chicago, St. Louis and Montreal; down in Detroit. No change in crushed slag. The fairly general advance in cement prices is largely to take care of the freight increase. New York price remains practically the same as last month. Price in Jersey City delivered is $4.39 against $4.25 last month. Lime advanced in several cities. Hydrated is up $1.50 per ton in New York, while lump advanced 30c. per bag to take care of freight increase.

REINFORCING MATERIALS—We show the new prices for Pittsburgh and New York on triangle mesh, the advance being about $10 per ton, which takes care not only of the increased freights but also of increased cost of raw materials that go into the making of the mesh. Advance of 10 per cent in Chicago not shown this month because figures have not yet been compiled. Reinforcing-bar situation about the same in the mills and New York warehouses. In Chicago the minimum quotation on bars is up 11c. to cover new freight costs.

COMMON BRICK—Slackened demand has caused a sharp decrease in New York, from $30.75 to $22.70, delivered. Decreases also in Denver and Detroit, with advances in St. Louis and Seattle.

HOLLOW TILE—Very few changes. Increases in San Francisco, Minneapolis and New Orleans. Decreases in Baltimore and Detroit.

STRUCTURAL MATERIAL—With a marked improvement in transportation facilities the mills are making much better deliveries, but the demand appears to have fallen considerably. With the exception of an advance on rivets in Chicago our prices remain the same as last month. Some jobbers are quoting lower prices, but in most cases this indicates insufficient stocks.

STEEL SHEETS—Market is easier as regards stocks and deliveries. Advances in New York and Chicago.

ROOFINGS—Shingles, red and green slate finish, are very scarce and are now selling at $10 per square in carloads, against $7.75 in August, $6 in the early part of 1920, and $5 in 1919. There has been a general advance in felt and pitch, both tar and asphalt.

LUMBER—Yellow pine declined in St. Louis. Our Montreal representative reports 5 to 10 per cent decrease in his district made by dealers to stimulate demand for building materials. Prices have been declining in Baltimore since June 15 owing to stagnation in local building, Baltimore dealers being willing to operate at present on a cost-plus-overhead basis.

LABOR—There has been a marked easing in the labor situation due to a general tightening up at works, and also to increasing immigration. As an indication, some 50,000 men have been laid off in Akron.

Price advances are indicated by **heavy type**; declines by *italics*

PIG IRON—Quotations compiled by The Matthew Addy Co.:

	Current	One Year Ago
CINCINNATI		
No. 2 Southern	**$46.50**	$36.60
Northern Basic	51.30	27.55
Southern Ohio No. 2	**48.50**	31.10
NEW YORK, tidewater delivery		
2X Virginia (silicon 2.25 to 2.75)	**57.12**	32.40
Southern No. 2 (silicon 2.25 to 2.75)	**52.10**	35.20
BIRMINGHAM		
No. 2 Foundry	42.00@**45.00**	29.10
PHILADELPHIA		
Eastern Pa	**51.25***	29@30*
Virginia No. 2	50.00†	33.10†
Basic	**51.00***	26.75*
Grey Forge	**49.00***	26.25*
CHICAGO		
No. 2 Foundry Local	46.00	26.75
No. 2 Foundry Southern	**50.00**	33.60
PITTSBURGH, including freight charge from the Valley		
No. 2 Foundry Valley	**49.56**	28.15
Basic	**48.96**	27.15
Bessemer	**51.96**	29.35

* F. o. b. furnace. † Delivered.

RAILWAY SUPPLIES

STEEL RAILS—The following quotations are per ton f. o. b. Pittsburgh and Chicago for carload or larger lots. For less than carload lots 5c. per 100 lb. is charged extra:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago Current	Chicago One Year Ago
Standard bessemer rails	$55.00	$45.00	$45.00@$55.00	$45.00
Standard openhearth rails	57.00	47.00	47.00@ 57.00	47.00
Light rails, 8 to 10 lb	2.88 @ 3.50*	2.585*	2.45 @ 3.50*	2.585
Light rails, 12 to 14 lb	2.84 @ 3.34*	2.54*	2.41 @ 3.34*	2.54
Light rails, 25 to 45 lb	2.75 @ 3.25*	2.45*	2.32 @ 3.25*	2.45

* Per 100 lb.

RAILWAY TIES—For fair-sized orders, the following prices per tie hold:

		7 In. x 9 In. by 8 Ft. 6 In.	6 In x 8 In. by 8½ Ft.
Chicago	Plain	$2.00	$2.25
Chicago	Creosoted	2.25	2.50
San Francisco	Douglas Fir—Green	1.35	.96
San Francisco	Douglas Fir—Creosoted	2.70	1.92

Prices per tie at mills in St. Louis district:

Untreated A Grade White Oak 6x8x8		Untreated A Grade Red Oak 6x8x8	
No. 1	$0.80	No. 1	$0.60
No. 2	.90	No. 2	.70
No. 3	1.00	No. 3	.80
No. 4	1.25		
7x9x8 white oak			1.05
7x9x8 red oak (No. 4)	$0.80	No. 5	.87

Note:—Prices delivered in St. Louis, white oak 6 x 8 x 8, best grade, $2; 7 x 9 x 9, $2.25.

TRACK SUPPLIES—The following prices are base per 100 lb. f.o.b. Pittsburgh for carload lots, together with the warehouse prices at the places named:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago	St. Louis	San Francisco
Standard spikes, $\frac{9}{16}$-in. and larger	$4 @ 4 25	$3 35	$3 40@4 00	$5 34	$7 75
Track bolts	6 00@6 50	4 35	4 60@5 00	Premium	9 25
Standard section angle bars	3 00@4 00	3 00	2 75@3 40	Premium	5 45

PIPE

WROUGHT PIPE—The following discounts are to jobbers for carload lots on the Pittsburgh basing card:

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
BUTT WELD					
¼ to 3	45 to 57½	41½ to 44	⅜	15½ to 25½	+1½ to 11½
			½	19½ to 29½	1½ to 11½
			¾ to 1½	24½ to 34½	8 to 18½
LAP WELD					
2	47 to 50½	34½ to 38	2	20½ to 28½	6½ to 14½
2½ to 6	50 to 53½	37½ to 41	2½ to 6	22½ to 30½	9½ to 17½
7 to 12	47 to 50½	33½ to 37	7 to 12	19½ to 27½	6½ to 14½
13 and 14	37½ to 41				
15	35 to 38½				
BUTT WELD, EXTRA STRONG, PLAIN ENDS					
to 1½	52 to 55½	39½ to 43	¾ to 1½	24½ to 34½	9½ to 19½
2 to 3	53 to 56½	40½ to 44			
LAP WELD, EXTRA STRONG, PLAIN ENDS					
2	45 to 48½	33½ to 37	2	21½ to 29½	8½ to 16½
2½ to 4	48 to 51½	36½ to 40	2½ to 4	23½ to 31½	11½ to 19½
4½ to 6	47 to 50½	35½ to 39	4½ to 6	22½ to 30½	10½ to 18½
7 to 8	43 to 46½	29½ to 33	7 to 8	14½ to 22½	2½ to 10½
9 to 12	38 to 41½	24½ to 28	9 to 12	9½ to 17½	5½ to +2½

STEEL—From warehouses at the places named the following discounts hold for steel pipe:

	Black New York	Black Chicago	Black St. Louis
¼ to 3 in. butt welded	40%	54@40%	37%
2½ to 6 in. lap welded	35%	50@40%	33½%
	Galvanized New York	**Galvanized Chicago**	**Galvanized St. Louis**
¼ to 3 in. butt welded	24%	40½@30%	22%
2½ to 6 in. lap welded	20%	37½%@27½	19%

Malleable fittings, Class B and C, from New York stock sell at + 32% list prices. Cast iron, standard sizes, net.

CAST-IRON PIPE—The following are prices per net ton for carload lots:

	New York Current	New York One Month Ago	New York One Year Ago	Chicago	St. Louis	San Francisco
4 in.	$86 20	$79 30	$57 30	$88 06	$85 66	$110 70
6 in. and over	81 20	76 30	54 30	83 06	80 66	105 70

Gas pipe and Class "A," $4 per ton extra; 16-ft lengths, No. 1.

CLAY DRAIN TILE—The following prices are per 1000 lin.ft.:

Size, In.	New York Current	New York One Year Ago	St. Louis	Chicago	San Francisco	Dallas
3	$42 50	$35 00	$60 00	$60 00		$60 00
4	60 00	51 00	70 00	80 00	$90 00	62 00
5	85 00	65 00		100 00	115 00	84 00
6	110 00	90 00	125 00	120 00	150 00	110 00
8	175 00	130 00	195 00	180 00	250 00	181 00

SEWER PIPE—The following prices are in cents per foot for carload lots:

Size, In.	New York Current Delivered	New York Year Ago Delivered	St. Louis	Chicago	San Francisco	Dallas
3	$0 24	$0 102	....	$0 15	$0 24	
4	24	102	....	15	175	$0 25
5	36	153		225	21	
6	36	153	$0 21	225	245	35
8	56	238	30	35	35	50
10	84	357	42	525	49	
12	1 08	459	54	625	63	90
15	1 61	612	806	90	1 05	
18	2 30	85	1 054	1 25	1 47	
20	2 76	1 02	1 426	1 50	1 96	
22	3 68	1 36		2 00		
24	4 14	1 53	1 86	2 25	2 52	
27	....	2 45	3 00	3 50	3 50	
30	....	2 664	3 65	4 00	4 20	
33	....	3 51	4 60	4 75	....	
36	....	3 9975	4 90	5 50	....	
	3	5	8	12	24	36
Boston	$1.65	$0.2475	$0.4225	$0.7425	$2.475	$6.875
Minneapolis			47	.85	2.75	6 16
Denver	Quotations not available					
Seattle			.40	.80	2.88	
Kansas City	No prices obtainable					
Los Angeles	.0975*	.1525*	.27	.48	60	
New Orleans	10 per cent off				18 per cent off	
Cincinnati	53 per cent off					38%
Atlanta			.33	.56	2.10	
Montreal	.55 per cent. off					
Detroit	49 per cent. off				47 per cent. off	
Baltimore delivered		.351	.546	1.053	3 51	

* 4-in., 6-in., 30-in. respectively

ROAD AND PAVING MATERIALS

ROAD OILS—Following are prices per gallon in tank cars 8000 gal. minimum f.o.b. place named:

		Current	One Year Ago
New York, 45% asphalt	(at terminal)	$0.13*	$0.04½
New York, 65% asphalt	(")	.12*	.06
New York, binder	(")	.13*	.06½
New York, flux	(")	.13*	.04½
St. Louis, 40% asphalt		.12*	.04½
Chicago, 40-50% asphalt		.10½	....
Chicago, 60-70% asphalt		.11½	....
Dallas, 40-50% asphalt		.08	.07
Dallas, 60-70% asphalt		.10	.08
Dallas, 75-90% asphalt		.12	.10
San Francisco, binder, per ton		.13	....

ASPHALTUM—Price per ton in packages (350-lb. bbls. or 425-lb. drums), and in bulk in carload lots:

	Package	Bulk
New York (Bayonne, N. J.)	$36.50	$29.00
Boston	42.42	.....
Chicago	37.50	33.00
San Francisco	19.00	13.00
Dallas	50.00	45.00
Seattle	27.00	.....
Denver	....	50 70
Minneapolis	40.00	34.00
Kansas City	40.00	32.00
St. Louis	36.40	28.90
Baltimore	42.25	.....
Los Angeles	21.15	.....
Montreal	.....	37.00
Detroit	49.00	42.25
Maurer	35.00	32.00
	42.00	41.00

PAVING STONE—

New York	5-in. granite	No quotations	
Chicago	About 4x8x4 dressed	3.40	sq.yd
	About 4x8x4 common	3.25	sq.yd.
San Francisco	Basalt block 4x7x8	65.00	per M
Kansas City	Granite	3.65	sq.yd.
Boston	5-in. granite	110.00	per M
Atlanta	Granite	2.00	sq.yd.
Detroit	Granite, 26½ blocks per sq. yd.	4.50	sq.yd.
Baltimore	Granite	2.50	sq.yd.
Montreal	Granite	5.90	sq.yd.
New Orleans	Granite	3.00	sq.yd.
Cincinnati	Granite	3.25	sq.yd.

FLAGGING—

New York	Bronx	$0.24	sq.ft.
	Manhattan	.25	sq.ft.
	Queens, 5 ft.	.26	sq.ft.
	6x20-in. cross-walk	.95	lin.ft.
Chicago	18 in. wide	.70	lin.ft.

CURBING—Bluestone per lineal foot, in New York, costs 70c. for 5x16 in., 80c. for 5x18 in.

WOOD BLOCK PAVING—	Size of Block	Treatment	Per Sq.Yd.
New York	3½	16	$4.07
New York	4	16	4.47
Boston	3	16	3.00
Chicago	4	16	3.75@4.00
Chicago	3½	16	3.25@3.50
St. Louis	3½	16	2.90
St. Louis	4	16	3.32
Seattle	4	16	Off market
Kansas City	4	16	3.00
Minneapolis	3½	16	3.42
Atlanta	3½	16	2.30
New Orleans	3	16	2.99
New Orleans	3½	16	3.42
New Orleans	4	16	3.85
Dallas	4	18	4.00
Baltimore	3½	16	3.80
Montreal	4	16	4.60
Detroit	3½	16	3.40

CONSTRUCTION MATERIALS

SAND AND GRAVEL—Price for cargo or carload lots is as follows, per cu.yd.:

	Gravel 1½ In. Current	Gravel 1½ In. One Yr. Ago	Gravel ¾ In. Current	Gravel ¾ In. One Yr. Ago	Sand Current	Sand One Yr. Ago
New York	$3.00	$2.00	$3.00	$2.00	$1 50	$1.25
Denver	2 00	1.00	1.80	1.60	1.00	1.25
Chicago	2 75	1 55	2.75	1 35	2.75	1.35
Kansas City	3 25	2.50	3.75	3.00	1.25†	1.00
St. Louis	1.60	1.78	1.65	1.82	1.65*	1.68
Seattle, per ton	1.25	1.20	1.25	1.25	1.25	1.05
Dallas	2.50	3.00	2.50	3.00	2.00	2.50
Minneapolis	2.25	1.25	....	1.35	.75	.60
Cincinnati	....	....	1.50	....	1.45	1.35‡
San Francisco	1.50	1.15	1.50	1.15	1.50	1.00
Boston	3.50	1.60‡	3.00	1.65‡	2.75	....
New Orleans	3.60	2.40	....	2.40	1.85	1.20
Los Angeles	1.25	1.02	1.25	1.02	1.15	.70
Atlanta, per ton	....	2.00	....	....	2.75	1.10
Detroit	2.25*	1.90	2.25*	1.90	2.00*	1.80
Baltimore	1.40‡	1.54	1.60‡	1.60	.70	.65
Montreal, per ton	1.45*	1.20	....	....	1.30‡	1.10

* Fine white sand, Pacific and Ottawa, per ton $6.
† Kaw River sand is 1.75 per yd. ‡ per ton.

CRUSHED STONE—Price for cargo or carload lots is as follows, per cu.yd.

	1½ In. Current	1½ In. One Year Ago	¾ In. Current	¾ In. One Year Ago
New York	$1.90@2.00	$1.65@1.75	$2.15	$1.75@1.85
Chicago	2.75	1.30	2.75	1.30
St. Louis	2.00	1.50	2.00	1.50
Dallas	3.50	2.90	3.50	2.80
San Francisco	1.50	1.50	1.50	1.50
Boston	3.00*(del)	2.75	3.00 (del)	2.75
Minneapolis	2.25†	1.15	2.50†	1.25
Denver				1.60
Kansas City	2.35	2.00	2.35	2.10
Seattle (Del.)	3.50	1.50	3.50	1.50
Cincinnati			1.65	
Los Angeles	1.60*	1.20	1.70*	1.12
Detroit	1.75	2.00	1.75*	2.00
Baltimore	1.80*	1.25	2.20*	1.50
Montreal	2.35*	1.90	2.80*	2.15

* Per ton. † Limestone; traprock, $1.60 and $1.80 per ton for 1½ and ¾-in.

CRUSHED SLAG—Price of crushed slag per net ton in carload lots:

	1½-In.	¾-In.	Roofing	Sand
Lebanon or Bethlehem, Pa.	$1.00	$1.00	$2.50	$0.90
Easton, Pa.	1.20	1.20	3.00	1.10
Buffalo, N. Y.	1.25	1.00	2.00	1.00
East Canaan, Conn.	1.25	1.35	3.50	1.10
Birmingham, Ala.	1.25	1.25	2.05	1.00
Toledo, Ohio	1.50	1.50		

LIME—Warehouse prices:

	Hydrated per Ton Finished	Hydrated per Ton Common	Lump per 200-Lb. Barrel Finished	Lump per 200-Lb. Barrel Common
New York	$21.00	$20.00	$3.80*-at plant-	$3.60*
Kansas City	27.20	26.20	2.50	2.40
Chicago				1.65
St. Louis	25.00	21.00		2.50
Boston	27.50	25.25	3.70†	3.40†
Dallas		25.00		2.50†
Cincinnati	17.20	16.20		13.20‡
San Francisco	25.40	22.00		2.25
Minneapolis	29.50	23.00	2.00†	1.85
Denver	32.00		1.05 (bu.)	
Detroit	20.00	18.00	1.80†	1.60†
Seattle	30.00		2.85†	
Los Angeles	2.75†	2.20†	2.75†	2.00†
Baltimore	23.50 (East)			12.83‡
Montreal	25.00	25.00	15.00‡	15.00‡
Atlanta	28.00	23.50	2.80†	2.80†
New Orleans	24.50	24.50	2.85	2.85

* 300-lb. barrels. †Per 180-lb. barrel. ‡ Per ton.

NOTE—Refund of 10c. per barrel with 25c per ton off on hydrated.

NATURAL CEMENT—Price to dealers for 500 bbl. or over, f. o. b., exclusive of bags:

	Current	One Year Ago
Minneapolis (Rosendale)	$3.00	$1.45
Kansas City (Ft. Scott)	1.60	1.40
New Orleans	3.36	2.52
Atlanta (Magnolia)	1.90	1.85
Cincinnati (Louisville)	2.85	1.35
Boston (Rosedale)	2.35	

PORTLAND CEMENT—Current prices are for barrels in carload lots, *without* bags, to contractors:

	Current Without Bags	One Month Ago Without Bags	One Year Ago Without Bags
New York (del.)	$4.10	$4.25	$2.30
Jersey City (del.)	4.39	4.25	2.27
Boston	3.32	3.32	2.42
Chicago	2.35	2.15	2.00
Pittsburgh	2.42	2.20	2.05
Cleveland	2.73	2.42	2.32
Detroit	2.71	3.00	2.08
Indianapolis	2.57	2.42	2.27
Toledo	2.71	2.28	2.12
Milwaukee	2.59	2.20	2.11
Duluth	2.35	2.20	2.10
Peoria	2.63	2.32	2.12
Cedar Rapids	2.71	2.40	2.18
Davenport	2.67	2.36	2.14
St. Louis	3.00	2.85	2.20
San Francisco	3.09	2.88	2.43
New Orleans	5.00	3.52	2.36
Minneapolis	3.42	3.30	2.20
Denver	3.25	3.80	2.67
Kansas City	2.76	2.76	2.26
Seattle	3.12	3.03	2.53
Dallas	2.92	2.92	2.03
Atlanta	4.90	2.70	2.50
Cincinnati	2.85	2.85	2.90
Los Angeles	3.10	3.10	2.78
Baltimore (del)	3.59	4.56	
Montreal (including bags)	3.00	3.00	
Detroit	3.60	5.00	

NOTE—Bag charge is generally 25c. each.

TRIANGLE MESH—Price per 100 sq.ft. in carload lots.

PLAIN 4-INCH by 4-INCH MESH

Style Number	Sectional Area Square Inches per Ft. Width	Pittsburgh	New York*	Chicago†	St. Louis	Dallas	San Francisco
032	0.032	$1.24	$1.55	$0.98	$0.99	$1.13	$1.32
049	0.049	1.56	1.95	1.26	1.26	1.43	1.67
068	0.068	1.88	2.35	1.53	1.56	1.79	2.06
093	0.093	2.38	2.98	1.97	2.00	2.41	2.65
126	0.126	2.93	3.67	2.43	2.47	2.92	3.28
153	0.153	3.47	4.34	2.90	2.95	3.48	3.93
180	0.180	3.97	4.97	3.33	3.39	3.99	.....
245	0.245	5.21	6.52	4.40	4.47	5.27	.....
287	0.287	6.00	7.50	5.08	5.16	6.10	6.86
336	0.336	6.93	8.67	5.89	5.99	7.06	.....
395	0.395	8.02	10.03	6.83	6.94	8.19	.....
PAVING							
036P	0.036	$0.98	$1.23	$0.76	$1.27	$0.80	.....
053P	0.053	1.34	1.68	1.06	1.08	1.12	.....
072P	0.072	1.66	2.08	1.34	1.37	1.46	.....
097P	0.097	2.11	1.76	1.73	1.76	1.88	.....
049R	0.049	1.34	2.08	1.06	1.08	1.12	.....
067R	0.067	1.66	2.64	1.34	1.37	1.46	.....
089R	0.089	2.11		1.73	1.76	1.88	.....

Made in 16-, 20-, 24-, 28-, 32-, 36-, 40-, 44-, 48-, 52- and 56-in. width in rolls 150-, 200- and 300-ft. lengths. Galvanized is about 10% higher.

Note—Triangle mesh again available in New York.
Chicago New prices will be given next month.

EXPANDED METAL LATH—Prices in carload lots per 100 yd. for painted are as follows:

Gage	Weight	New York‡ Current Carloads	New York‡ Less Carloads	Chicago	St. Louis	San Francisco	Dallas
27	233	$32.10	$32.20*	$33.60†	$35.00	$36.00	$32.75
26	250	33.45	33.65*	35.20†	36.00		34.50
25	300	34.90	35.00*	36.90†		39.00	36.75
24	340	36.50	36.65*	40.00†	39.00	44.00	39.25
22	450	39.60	39.80*	45.10†			43.30

* Delivered on job.
†Galvanized is $8 per 100 yd., additional.
***Note—Metal lath again available in New York.**

BARS, CONCRETE REINFORCING—Following quotations are per 100 lb.

ROLLED FROM BILLETS

In	Mill Pittsburgh	New York Current	Chicago	Dallas	San Francisco
¾ and larger	$2.35@$3.75	$3.63@$5.00	$3.48@$3.87	$3.87 $4.75	$5.30
⅝	2.40@ 3.75	3.68@ 5.00	3.53@ 3.92	3.92 4.80	5.35
½	2.45@ 3.75	3.73@ 5.00	3.58@ 3.97	3.97 4.95	5.40
⅜	2.60@ 3.75	3.88@ 5.00	3.63@ 4.12	4.12 5.00	5.55
¼	2.85@ 3.75	4.13@ 5.00	4.18@ 4.57	4.57 5.05	5.80

Warehouse, Uncut

Twisted bars cut to length take extra of 27½c. per 100 lb.

ROLLED FROM RAILS

	Chicago	St. Louis	Dallas		Chicago	St. Louis	Dallas
¾ in. and larger	$4.00	$4.00	$4.25	⅝	$4.25	$4.25	
⅝	4.05	4.05	4.30	½			
½	4.10	4.10	.....				

BRICK—To contractors price per 1000 in cargo or carload lots is as follows:

	Common Current	Common One Month Ago	Common One Year Ago	Paving Block 3-inch	Paving Block 4-inch
New York (del)	$22.50	$30.75	.....	$56.80*	$62.80*
New Orleans	25.50	25.00	$19.00	.....	.....
Chicago	15.00	16.00	12.00	39.51	
St. Louis, salmon	17.00†	16.00	12.00		37.00
Denver	15.00	17.00	14.00	.....	.....
Dallas	22.07	22.07	18.57	.....	.....
San Francisco	18.00	18.00	12.50	.....	44.38
Los Angeles	13.50	13.50	12.50		
Boston	30.00	30.00	18.00	58.60	65.20
Minneapolis (del.)	24@26	24.00	14.50	.....	.....
Kansas City	22.00	22.00	16.00	.....	.....
Seattle	19.00	15.00	15.00	48.00	53.50
Cincinnati	24.00	24.00	17.00	.....	.....
Montreal (del.)	20.00	16.00	15.00	.....	.....
Detroit	22.00	23.00	17.25	40.00	48.00
Baltimore (del.)	20.00–25.00	22.50	18.00	.....	44.00‡
Atlanta	24.00	.....	.....	.....	

*For paving blocks 3½x8½x3 and 3½x8"x4 respectively. †Hard brick $20.50 in St. Louis. ‡Vitrified, f. o. b. plant, Baltimore.

HOLLOW TILE—Price per block in carload lots for hollow building tile:

	New York Current on Trucks	New York One Year Ago	Chicago	St. Louis	San Francisco	Factory Perth Amboy N. J.
4x12x12	$0.2444*	$0.11475	$0.1516	None	$.145	
6x12x12	3259*	.153	.2274	"	.21	
8x12x12	4345*	.204	.2728	"	.29	.4358
10x12x12	.....	.....	.3411	"	.....	.5447
12x12x12	.....	.....	.4093	"	.....	.6537

*Partition title. Less 5% for cash, 15 days.

	4x12x12	8x12x12	12x12x12
Boston	$0.195	$0.372	$0.496
Minneapolis	.1192	.2086	.3278
Cincinnati	125	2186	.3286
Kansas City	No prices obtainable		
Denver	Quotations withdrawn		
Seattle	.13	.175	.30
Los Angeles	.10	.175	
New Orleans	.30	.40	.60
Detroit	17 per cent. off list		
Montreal	.22	.30	.36
Baltimore	.2726	.486	.62

STRUCTURAL MATERIAL—Following are base prices f.o.b. mill, Pittsburgh, together with quotations per 100 lb. from warehouses at places named:

	Mill Pittsburgh	New York Current	New York 1 Yr. Ago	St. Louis	Chicago	San Francisco
Beams, 3 to 15 in.	$2.45@$3.10	$4.58	$3.47	$4.04	$3.97	$6.00
Channels, 3 to 15 in.	2.45@ 3.10	4.58	3.47	4.04	3.97	6.00
Angles, 3 to 6 in., ¼ in. thick	2.45@ 3.10	4.58	3.47	4.04	3.97	6.00
Tees, 3 in. and larger	2.45@ 3.75	4.63	3.52	4.09	4.02	6.00
Plates	2.65@ 4.00	4.78	3.67	4.24	4.17	6.30

RIVETS—The following quotations are per 100 lb.:

STRUCTURAL

	Mill Pittsburgh	Warehouse New York Current	Warehouse New York One Yr. Ago	Warehouse Chicago	Warehouse St. Louis	Warehouse San Francisco	Warehouse Dallas
¾ in. and larger	$4.50	$6.00	$4.72	$5.73	$5.69	$7.05	$7.50

CONE HEAD BOILER

¾ in. and larger	4.60	7.10	4.82	5.83	5.79	7.15	7.50
¾ and 11/16	4.75	7.25	4.97	5.98	5.94	7.40	7.50
½ and 9/16	5.00	7.50	5.32	6.33	6.19	7.65	7.75

Lengths shorter than 1 in. take an extra of 50c. Lengths between 1 in. and 2 in. take an extra of 25c.

NAILS—The following quotations are per keg from warehouse:

	Mill Pittsburgh	New York	Chicago	San Francisco	Dallas	Montreal
Wire	$4.25	$8.50	$4.45	$6.45	$6.90	$4.95
Cut		10.00	6.00@8.00	8.95	6.40	5.00

PREPARED ROOFINGS—Standard grade rubbered surface, complete with nails and cement, costs per square as follows at maufacturing points:

	New York 1-Ply c.l.	New York 2-Ply l.c.l.	New York 3 Ply c.l.	Philadelphia 1-Ply c.l.	Philadelphia 2-Ply l.c.l.	Philadelphia 3-Ply c.l.
No. 1 grade	$2.50	$3.00	$3.55	$2.40	$2.90	$3.45
No. 2 grade	2.25	2.70	3.20	2.15	2.60	3.10

Slate-surfaced roofing (red and green) in rolls of 108 sq.ft. costs **$4.50** per roll in carload lots and **$4.75** for smaller quantities.

Shingles, red and green slate finish, cost **$10.00** per square in carloads; **$10.25** in smaller quantities, in Philadelphia.

ROOFING MATERIALS—Prices per ton f.o.b. New York and Chicago:

Tar felt (14 lb. per square of 100 sq.ft.) per roll	**$3.55**
Tar pitch (in 400-lb. bbl.) per 100 lb	**2.25**
Asphalt pitch (in barrels) per ton	**56.50**
Asphalt felt (light) per ton	**132.00**
Asphalt felt (heavy) per ton	**138.00**

SHEETS—Quotations are in cents per pound in various cities from warehouse also the base quotations from mill:

Blue Annealed	Large Mill Lots Pittsburgh	St. Louis	Chicago	San Francisco	New York Current	New York One Yr. Ago
No. 10	$3.55@$7.50	$7.09	$7.13	$8.65	$7.23@$8.00	$4.57
No. 12	3.60@ 7.55	7.09	7.18	8.70	7.28@ 8.05	4.62
No. 14	3.65@ 7.60	7.09	7.23	8.75	7.33@ 8.10	4.67
No. 16	3.75@ 7.70	7.09	7.28	8.85	7.43@ 8.20	4.77
Black						
*Nos. 18 and 20	4.15@ 8.30	8.10	7.90	10.60	8.41@ 9.80	5.30
*Nos. 22 and 24	4.20@ 8.35	8.10	7.95	10.65	8.46@ 9.85	5.35
*No. 26	4.25@ 8.40	8.10	8.00	10.70	8.51@ 9.90	5.40
*No. 28	4.35@ 8.50	8.10	8.10	10.80	8.61@10.00	5.50
Galvanized						
No. 10	4.70@ 8.50	9.60	8.60	.....	8.91@11.50	6.20
No. 12	4.80@ 8.60	9.60	8.75	11.35	9.01@11.50	6.25
No. 14	4.80@ 8.60	9.60	8.70	11.35	9.01@11.50	6.30
Nos. 18 and 20	5.10@ 8.90	9.60	9.[illegible]	11.65	9.26@11.90	6.60
Nos. 22 and 24	5.25@ 9.05	9.60	9.15	11.80	9.41@12.05	6.75
*No. 26	5.40@ 9.20	9.60	9.30	11.95	9.56@12.20	6.90
*No. 28	5.70@ 9.50	9.60	9.60	12.25	9.86@12.50	7.20

*For painted corrugated sheets add 30c. per 1000 lb. for 5 to 28 gage; 25c. for 19 to 24 gages; for galvanized corrugated sheets add 15c., all gages.

LINSEED OIL—These prices are per gallon:

	New York Current	New York One Year Ago	Chicago Current	Chicago One Year Ago
Raw in barrel (5 bbl.)	$1.25	$2.15	$1.40	$2.37
5-gal. cans	1.40*	2.28	1.65	2.57

*To this price must be added the cost of the cans (returnable), $2.25 for case of six

WHITE AND RED LEAD—Base price per pound:

	Red Current Dry	Red Current In Oil	Red 1 Year Ago Dry	Red 1 Year Ago In Oil	White Current Dry and In Oil	White 1 Yr. Ago Dry and In Oil
100-lb. keg	15.50	17.00	13.00	14.50	15.50	13.00
25 and 50-lb. kegs	15.75	17.25	13.25	14.75	15.75	13.25
12½-lb. keg	16.00	17.50	13.50	15.00	16.00	13.50
5-lb. cans	18.50	20.00	15.00	16.50	18.50	15.00
1-lb. cans	20.50	22.00	16.00	17.50	20.50	16.00

500 lb. lots less 10% discount; 2000 lb. lots less 10-2½% discount

LUMBER

San Francisco—Prices of rough Douglas fir No. 1 common, in more than carload lots:

Lumber Prices in Yards at San Francisco

	6-8-12 and 14 Ft	10-16-18 and 20 Ft.	22 and 24 Ft	25 to 32 Ft
3x3 and 4	$36.50	$37.00	$38.00	$40.00
3x6 and 8	37.50	38.00	39.00	41.00
4x4-6 and 8	38.00	39.00	40.00	42.00
3x10 and 12	38.00	39.00	40.00	42.00
3x14	38.50	39.50	40.50	42.50
4x10 and 12	38.00	39.00	40.00	42.00
4x14	39.00	40.00	41.00	43.00

	24 Ft. and Under	25 to 32 Ft.	33 to 40 Ft
6x10	$37.50	$39.50	$40.50
6x14	39.00	41.00	41.50
8x10	37.50	39.50	40.50
8x14	39.00	41.00	41.50

New York, Chicago and St. Louis

	Southern Pine New York* 20 Ft. and Under	Southern Pine New York* 22-24 Ft. and Under	Southern Pine Chicago 20 Ft. and Under	Southern Pine Chicago 22-24 Ft. and Under	Yellow Pine St. Louis 20 Ft. and Under	Yellow Pine St. Louis 22-24 Ft
3x 4 to 8x8	$55.00	$56.00	$68.00	$69.00	45.25@47	46.50@48.75
3x10 to 10x10	60.00	61.00	70.00	71.00	49.25	50.50
3x12 to 12x12	66.00	67.00	72.00	73.00	53.75	55.00
3x14 to 14x14	71.00	72.00	75.00	76.00	62.25	63.50
3x16 to 16x16	78.00	79.00	80.00	81.00	68.50	69.50
3x18 to 18x18	90.00	91.00	85.00	86.00	.....	.....
4x20 to 20x20	95.00	96.00	90.00	91.00	.....	.....

*Prices from Lumbermen's Bureau. New prices on Sept. 15.

Over 24 ft.—Add $1 for each additional 2 ft. in length up to 40 ft for sizes 12 x 12 and under, for sizes over 12 x 12 add $2. for merchantable add $2 to sizes 10 x 10 and under. For prime add $2 to the price of merchantable for all sizes.

Other Cities

	8 x 8-In. x 20-Ft. and Under P.	8 x 8-In. x 20-Ft. and Under Fir	8 x 8-In. x 20-Ft. and Under Hemlock	8 x 8-In. x 20-Ft. and Under Spruce	12 x 12-In. 20 Ft. and Under P.	12 x 12-In. 20 Ft. and Under Fir
Boston	$73.00	$70.00	.....	$65.00	$85.00	$75.00
Kansas City	51.00	51.25	$51.25	51.25	60.00	51.25
Seattle	.....	32.00	.....	.....	.....	32.00
New Orleans	49.00	.....	.....	.....	48.00	
Baltimore	70.00	.....	.....	.....	80.00	.....
Cincinnati	45.00	50.00	50.00	.....	55.00	55.00
Montreal	87.00	87.00	70.00	85.00	79.00	110.00
Los Angeles†	.....	57.00	.....	.....	.....	59.00
Detroit	67.00	.....	.....	.....	79.00	79.00
Denver	.....	44.75	.....	.....	.....	44.75
Minneapolis	.....	48.00	54.00	.....	.....	48.00

	1-In. Rough, 10 In. x 16 Ft. P.	1-In. Rough, 10 In. x 16 Ft. Fir	1-In. Rough, 10 In. x 16 Ft. Hemlock	2-In. T. and Gr. 10 In. x 16 Ft. P.	2-In. T. and Gr. 10 In. x 16 Ft. Fir
Boston	$110.00	.....	$52.00	$105.00	$85.00
Kansas City	102.00	105.50	106.50	113.00	112.75
Seattle	.....	37.50	.....	.....	38.50
New Orleans	77.00	.....	.....	50.00	.....
Baltimore	56@60	.....	.....	64@67	.....
Cincinnati	50.00	55.00	50.00	45.00	50.00
Montreal	80.00	80.00	70.00	85.00	85.00
Los Angeles	.....	58.00	.....	.....	.....
Detroit	50.00	.....	49.00	44.00	.....
Denver	.....	39.75	.....	.....	40.25
Minneapolis	.....	46.50	50.25	.....	43.00

* Montreal—Up to 32 ft.; over which, $3.00 per M. increase up to 30 ft.

† Base price, 2 x 3's and 2 x 4's, 8 to 14 ft., is $54.00

Detroit—4 x 4 x 12, fir D, $50; rough fir, $53; 2 x 6 x 6, hemlock D sides, $50 2 x 12 x 18, rough fir, $52.50; 2 x 12 x 12, rough fir, $52; 2 x 4 x 16 fir D, $50

FREIGHT RATES

On finished steel products in the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, flat sheets (except planished), chains, etc., the following freight rates are effective in cents per 100 lb., in carloads of 36,000 lb.:

Boston	$0.41½	New Orleans	$0.51½
Buffalo	.29½	New York	.38
Chicago	.38	Pacific Coast (all rail)	1.66½†
Cincinnati	.33	Philadelphia	.35
Cleveland	.24	St. Louis	.47½
Denver	1.35*	St. Paul	.69½
Kansas City	.81½	Detroit	.33
		Baltimore	.33½

Note—Add 3% transportation tax. * Minimum carload, 40,000 lb.
† Minimum carload, 50,000 lb., structural steel only.

CONTRACTORS' SUPPLIES

STEEL SHEET PILING—The following price is base per 100 lb. f. o. b. Pittsburgh, with a comparison of a month and a year ago:

Current	One Month Ago	One Year Ago
$4.00@5.00	$2.55@3.65	$2.25

WIRE ROPE—Discounts from list price on regular grades of bright and galvanized are as follows:

	New York
Hercules red strand, all constructions	20%
Patent flattened strand, special and cast steel	20%
Patent flattened strand, iron rope	5%
Plow steel round strand rope	30%
Special steel round strand rope	30%
Cast steel round strand rope	22½%
Iron strand and iron tiller	5%
Galvanized iron rigging and guy rope	+12%

San Francisco: Galvanized Iron Rigging and Guy Ropes, +17.%; Bright Wire, 25% off.

Chicago, + 10 on galvanized, 22½ — 2½ off on bright.

Western and California territory, 20% plow steel; 22½% galvanized iron rigging and guy rope.

Montana, Idaho and Arizona, 15% plow steel; 27½% galvanized iron rigging and guy rope.

MANILA ROPE—For rope smaller than ½-in. the price is ½ to 2c. extra; while for quantities amounting to less than 600 ft. there is an extra charge of 1c. The number of feet per pound for the various sizes is as follows: ¼-in., 8 ft., ⅜-in., 6; ½-in., 4½; ⅝-in., 3½; ¾-in., 2 ft. 10 in.; 1-in., 2 ft. 4 in. Following is price per pound for ½-in. and larger, in 1200-ft. coils:

Boston	$0.32½	Kansas City	$0.30½
New York	.29	New Orleans	0.28½
Chicago	.27½	Los Angeles	.31
Minneapolis	.29½	Seattle	.28
San Francisco	.27	St. Louis	.26½
Atlanta	.35	Montreal	.35½
Denver	.30	Detroit	.26
Cincinnati	.35	Baltimore	.27½

EXPLOSIVES—Price per pound of dynamite in small lots and price per 25 lb keg for black powder.

	Low Freezing 20%	Gelatin 40%	Gelatin 60%	Gelatin 80%	Black Powder
New York	.....	$0.33½	$0.36½	.....	$2.30
Boston	.....	.28	.31	$.34	
Kansas City	.2475	.27	.30	.34	2.40
Seattle	.18	.20½	.22½	.29½	2.60
Chicago	.2175	.2525	.2975	.34	2.45
Minneapolis	.2272	.2629	.2935	.....	2.90
St. Louis	.25	.285	.315	35.75	2.60
Denver	.2250	.26	.29	.3325	2.80
Dallas	.265*	275	.3025	....	2.60
Los Angeles	.22	.27	.31	....	2.95
Atlanta	.2575	.2925	.3225	.3650	2.55
Baltimore	.2525	.2875	.3175	.36	2.10
Cincinnati	.2275	.2525	.2725	.....	2.30
Montreal	.30	.32	.37	.38	4.10
New Orleans	.2650	.295	.325	.3925	2.90

* 30 Per Cent.

POLES — For spruce and plain pine poles, delivered New York, the price is as follows:

Spruce 10-in. butts, 5-in. tops, length 20-30 ft	$8.50
Spruce 12-in. butts, 6-in. tops, length 30-40 ft	10.50
Pine 12-in. butts, 6-in. tops, length 41-50 ft	13.75
Pine 14-in. butts, 6-in. tops, length 51-60 ft	22.50
Pine 14-in. butts, 6-in. tops, length 61-71 ft	25.25

	Dallas
6-in. x 20-ft	$4.60
6-in. x 30-ft	7.10
8-in. x 30-ft	8.45
8-in. x 35-ft	10.38

OLD MATERIAL—The prices following are per gross ton paid to dealers and producers in New York. In Chicago and St. Louis the quotations are per net ton and cover delivery at the buyer's works, including freight transfer charges.

	New York	Chicago	St. Louis
No. 1 railroad wrought	$27.50	$23.35	$22.50
Stove plate	24.50	27.60	24.00
No. 1 machinery cast	39.00	33.75	38.50
Machine shop turnings	14.50	9.50	10.50
Cast borings	18.50	13.35	12.50
Railroad malleable cast	25.50	27.00	22.50
Re-rolling rails	35.50	36.50@37.50	35.00
Relaying rails	55.00	57.50@62.50	45@50

SHIP SPIKES—Current prices per 100 lb.

	San Francisco		Seattle
In.	Galv.	Black	Black
¼	$9.20	$8.50	$8.55
⅜	8.75	6.75	8.25
½	8.60	6.60	8.30

Pittsburgh base, $4.40@$4.75 per 100 lb.

LABOR RATES AND CONDITIONS THROUGHOUT THE COUNTRY

S means scarce; E, enough; P, plentiful

Cities	Bricklayers	Carpenters	Hoisting Engineers	Hod Carriers	Pile Drivers	Structural Iron Workers	Common Labor	Remarks
Atlanta	$1.25S	$0.85P	1.25	.50	$0.60-.65	$1.00E	$0.35S	Atlanta—Nearly normal.
Baltimore	1.00E	.80-90E	.87½E	.46-.54E	.74E	1.00E	.35-.45E	Baltimore—Satisfactory supply of labor.
Boston	1.10P	1.00P	1.15@1.25P	.75P	1.25P	1.15@1.25P	.67½@70P	Boston—Labor supply sufficient.
Cincinnati	1.25S	.90E	.75E	.70E	.....	.87½E	.60S	Cincinnati—Common labor scarce.
Chicago	1.25	1.25	.....	.....	.....	1.25	1.00	Chicago—Labor plentiful but independent. Contractors report increased efficiency.
Cleveland	1.00S	.90S	1.00E	.57½E	.80E	1.00E	.57½E	
Dallas	1.25S	1.00P	1.00E	.60E	1.00E	1.25S	.50@1.00P	Dallas—Common labor very scarce.
Denver	1.25E	1.16½E	1.16½@1.18½E	.75@81½E	.....	1.15½E	.50@56.½	Denver—Common labor scarce even at $5.
Detroit	1.25P	85@1.00P	1.10P	.70E	1.10P	1.25E	.65E	Detroit—Men released from shops are in some cases returning to construction work.
Kansas City	1.12½	1.00	1.00	.90	1.00	1.10	.75	
Los Angeles	1.25P	.87½P	.87½P	1.00P	.87½P	.87½P	.56¼-.62½E	Los Angeles—Rates shown are union; non-union a little less; but union scale prevails generally.
Minneapolis	1.25	1.00P	1.00	.75	.....	1.00	.60	Minneapolis—Conditions normal. Plasterers now receive $1.12½@$1.25.
Montreal	1.00	.80-.85S	.65S	.50@.60S	.50	.50-.65	.47½-.55S	Montreal — Harvesting in West taking many men from common labor ranks.
New Orleans	1.00E	.95E	1.00E	.50@.60E	1.00E	1.00E	.40S	New Orleans—Building trade stagnant, owing to high cost of labor and materials.
New York	1.25	1.12½	1.25	.87½	1.12½	1.12½	.-75.80	New York—Agreement of Nov. 20, 1919, was modified as shown, effective May 1, 1920. Excavators, 75c.; Concrete workers, 81¼c.
Pittsburgh	1.50P	1.25P	1.12½P	1.00P	1.00P	1.25S	.80E	Pittsburgh—Conditions normal.
St. Louis	1.25E	1.25E	1.25E	.85E	1.00P	1.25E	.52-.75E	St. Louis—Hoisting engines receive $1.37½ on double hoist. Plaster hodcarriers receive 94¼c.
San Francisco	1.25E	1.12½E	1.12½E	1.00E	1.12½E	1.12½E	.81¼E	San Francisco—Sufficient labor of the trades shown, but there is a scarcity of concrete workers.
Seattle	1.25	1.00	1@1.12	.87½	1.00	1.00	.75E	Seattle—Not much building construction in prospect.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 11	Allentown, Pa.	Sept. 16
Oct. 14	Sacramento, Cal.	Sept. 16
Oct. 15	Sidney, Neb.	Oct. 7
Oct. 18	Nokomis, Ill.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 25	Ventnor City, N. J.	Oct. 7
	Adv. Oct. 7.	
Oct. 28	Newark, N. J.	Oct. 7
	Adv. Oct. 7.	

SEWERS

Oct. 11	Cleveland, O.	Sept. 23
Oct. 13	Ossining, N. Y.	Sept. 23
Oct. 13	Phillipsburg, N. J.	Oct. 7
	Adv. Oct. 7.	
Oct. 15	Phila., Pa.	Oct. 7
Oct. 19	Wichita, Kan.	Sept. 30
Oct. 19	Ada, Okla.	Oct. 7
Oct. 19	Jersey City, N. J.	Oct. 7
	Adv. Oct. 7.	
Oct. 20	Middletown, N. Y.	Oct. 7
Oct. 30	Yorkville, O.	Sept. 23

BRIDGES

Oct. 11	Harlan, Ky.	Oct. 7
	Adv. Oct. 7.	
Oct. 12	Maryland	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 12	North Carolina	Oct. 7
Oct. 19	Alabama	Sept. 23
	Adv. Sept. 23 to Oct. 7.	
Oct. 21	Chicago, Ill.	Sept. 30
Oct. 22	Detroit, Mich.	Sept. 23
Oct. 25	Missouri	Oct. 7

STREETS AND ROADS

Oct. 9	Pittsburgh, Pa.	Oct. 7
Oct. 11	Indiana	Oct. 7
Oct. 11	Colorado	Sept. 30
Oct. 11	Throop (Olyphant P. O.), Pa.	Oct. 7
Oct. 11	Wisconsin	Oct. 7
Oct. 12	Maryland	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 12	North Carolina	Oct. 7
Oct. 13	West Orange, N. J.	Sept. 30
Oct. 13	Brooklyn, N. Y.	Oct. 7
Oct. 13	Pennsylvania	Sept. 23
	Adv. Sept. 23 to Oct. 7.	
Oct. 13	Missouri	Sept. 30
Oct. 13	Clarksville, Tex.	Oct. 7
Oct. 13	Clayton, Mo.	Oct. 7
Oct. 14	Arizona	Sept. 30
Oct. 14	Middlesex (Sayreville P. O.), N. J.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 14	New Mexico	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 14	Ft. Wayne Ind.	Oct. 7
Oct. 15	Missouri	Sept. 30
Oct. 15	Indiana	Oct. 7
Oct. 15	Lake City, Mich.	Oct. 7
Oct. 18	Freehold N. J.	Oct. 7
	Adv. Sept. 30 and Oct. 7.	
Oct. 19	Shakopee, Minn.	Sept. 23
Oct. 19	Granite Falls, Minn.	Oct. 7
Oct. 22	Missouri	Sept. 30
Oct. 22	Jacksonville, Fla.	Sept. 30
Oct. 22	Detroit, Mich.	Oct. 7
Oct. 25	Missouri	Oct. 7
Oct. 26	Ft. Wayne, Ind.	Oct. 7
Oct. 27	Indiana	Oct. 7
Oct. 27	Delaware	Oct. 7
	Adv. Oct. 7.	
Oct. 28	Siloam Springs, Ark.	Sept. 30
Oct. 30	Indiana	Oct. 7

EXCAVATION AND DREDGING

Oct. 12	Nevada, Ia.	Sept. 30
Oct. 14	Atlantic, Ia.	Sept. 30
Oct. 14	Nevada Ia.	Oct. 7
Oct. 15	Red Oak, Ia.	Oct. 7
Oct. 16	Watseka, Ill.	Oct. 7
Nov. 1	Tampa, Fla.	Oct. 7
	Adv. Oct. 7.	

INDUSTRIAL WORKS

Oct. 11	Camp Douglas, Wis.	Sept. 30
Oct. 15	London, Ont.	Sept. 23
Oct. 15	Tilbury, Ont.	Sept. 23
Oct. 18	Jackson, Wis.	Oct. 7
Oct. 19	Hartford, Conn.	Oct. 7
Nov. 1	Webb City, Mo.	Sept. 16

BUILDINGS

Oct. 10	Fairport, O.	Oct. 7
Oct. 11	Providence R. I.	Oct. 7
Oct. 11	Baltimore, Md.	Oct. 7
Oct. 12	Huron, S. D.	Sept. 2
Oct. 12	Marysville O.	Sept. 30
Oct. 13	New Bedford, Mass.	Sept. 30
Oct. 14	Minneapolis, Minn.	Oct. 7
Oct. 15	Presho, S. D.	Sept. 30
Oct. 15	Canton, O.	Sept. 30
Nov. 15	Enid, Okla.	Sept. 30
Nov. 15	Dallas, Tex.	Sept. 23
Oct. 16	Atlanta, Ga.	Oct. 7
Oct. 18	Elyria, O.	Oct. 7
Oct. 18	New York, N. Y.	Oct. 7
Oct. 20	Cleveland Height (Warrensville P. O.) O.	Oct. 7
Oct. 21	Chambersburg Pa.	Oct. 7
	Adv. Sept. 30 and Oct. 7.	
Oct. 21	Baltimore, Md.	Oct. 7
Oct. 25	Scranton, Pa.	Oct. 7
Oct. 27	Tenafly, N. J.	Oct. 7
	Adv. Oct. 7.	
Oct. 27	Ft. Dodge, Pa.	Oct. 7

FEDERAL GOVERNMENT WORK

Oct. 11	Conduit, Dam, etc.—Norfolk, Va.	Sept. 16
Oct. 11	Dredging — Providence, R. I.	Sept. 16
	Adv. Sept. 16 to Oct. 7.	
Oct. 11	Steel Barges — Memphis, Tenn.	Sept. 16
	Adv. Sept. 16 to Oct. 7.	
Oct. 13	Hospital Buildings—Spec. 4300—San Diego, Cal.	Sept. 16
	Adv. Sept. 30 and Oct. 7.	
Oct. 13	Seaplane Runway — Spec. 4267 — Hampton Roads, Va.	Sept. 30
Oct. 14	Dump Scows—Phila., Pa.	Sept. 16
	Adv. Sept. 16 to Oct. 7.	
Oct. 14	Steel Buoys — Tompkinsville, N. Y.	Sept. 30
Oct. 15	Office and Laboratory — Spec. 4391—Wash., D. C.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 15	Scotch Marine Boilers, etc. —Jacksonville, Fla.	Sept. 23
	Adv. Sept. 23 to Oct. 7.	
Oct. 19	Water Piping—Wheeling, W. Va.	Oct. 7
Oct. 20	Concrete Pavement, etc.—Spec. 4257—Ft. Lyon Col.	Sept. 30
Oct. 20	Mine Storage Buildings—Spec. 4253—New Orleans, La.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 20	Lighting, Wiring, etc. — Wheeling, W. Va.	Oct. 7
Oct. 20	Remodeling Post Office — Lansing, Mich.	Oct. 7
Oct. 20	Fire Alarm System—Spec. 4288—San Diego, Cal.	Oct. 7
Oct. 20	Piers and Dredging—Spec. 4090—Newport, R. I.	Oct. 7
Oct. 21	Mailing Vestibule, etc. — Rockford, Ill.	Oct. 7
Oct. 22	Dredging—Norfolk, Va.	Sept. 23
Oct. 23	Foundations and Coping for Reflecting Pool — Wash., D. C.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 25	Hospital — West Point, N. Y.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 25	Dredging—Providence, R. I.	Oct. 7
	Adv. Sept. 30 and Oct. 7.	
Oct. 26	Remodeling and Repairing Customhouse and Post Office—Buffalo, N. Y.	Sept. 30
	Adv. Sept. 30 and Oct. 7.	
Oct. 27	Elevator Plant—Honolulu, H. I.	Oct. 7
Oct. 27	Remodeling Custom House and Post Office — Providence, R. I.	Oct. 7
Oct. 27	Marine Railway—Spec. 4297 —San Diego, Cal.	Oct. 7
	Adv. Oct. 7.	
Oct. 30	Hoisting Plant—Wahington, D. C.	Sept. 16
Nov. 5	Earthwork — St. Louis, Mo.	Oct. 7
	Adv. Oct. 7.	

MISCELLANEOUS

Oct. 9	Freight Terminal — Baltimore, Md.	Oct. 7
Oct. 11	Ferry Boat—New York, N. Y.	Sept. 23
Oct. 11	Electric Equipment, Etc.—New York, N. Y.	Oct. 7
Oct. 12	Pier—Rondeau, Ont.	Oct. 7
Oct. 13	Piles, Bulkhead, etc. — Brooklyn, N. Y.	Sept. 16
	Adv. Sept. 16 to Oct. 7.	
Oct. 13	Piers—Oswego, N. Y.	Sept. 16
	Adv. Sept. 16 to Oct. 7.	
Oct. 15	Baseball Field — Boston, Mass.	Oct. 7
Oct. 18	Tractors — New York, N. Y.	Oct. 7
Oct. 18	Locks—Chicago, Ill.	Sept. 16
	Adv. Sept. 16 to Oct. 7.	
Oct. 20	Equipment — Cleveland (Warrensville P. O.), O.	Oct. 7
Oct. 21	Foundation — Ft. Wayne, Ind.	Oct. 7
Oct. 22	Tractors—New York, N. Y.	Oct. 7
Oct. 22	Ferryboat—New York City, N. Y.	Oct. 7
Oct. 27	Testing Machine — Dover, Del.	Oct. 7
	Adv. Oct. 7.	
Oct. 29	Terminal — Rouses Point, N. Y.	Oct. 7
	Adv. Oct. 7.	

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Fall River—City having plans prepared by H. K. Barrows, archt. and engr., 6 Beacon St., Boston, for 1 story, 35 x 40 ft. brick and steel pumping station, also rein.-con. dam across Watuppa Pond. About $150,000. J. H. Kay, mayor.

Ky., Covington—City plans election to vote on $250,000 bonds to install 10,000,000 gal. electric triple-expansion pump at waterworks pumping station. Address J. M. Louk, supt.

Minn., Pine Island—City voted $30,000 bonds to improve waterworks system. J. F. Druar, 512 Globe Bldg., St. Paul, engr.

Wyo., Evanston—City voted $200,000 bonds to build complete waterworks system. W. Cook, clk. Noted July 1.

Wyo., Laramie—City election Nov. 2, to vote on $162,000 bonds to extend sewerage system.

Tex., Paris—City voted $1,000,000 bonds to build 4,000,000,000 gal. reservoir and improve waterworks system, to include 2,000,000 gal. underground reservoir and dam across Pine Creek. R. G. Tyler, city engr.

Tex., Wichita Falls—City election Oct. 12, to vote on $200,000 bonds to improve waterworks system. J. Montgomery, city engr.

BIDS DESIRED

N. J., Newark—Until Oct. 28, by North Jersey Dist. Water Supply Comn., 20 Clinton St., building portion of Wanaque Dam. L. J. Tonnele, chn.; advertised in this issue. Noted Sept. 30.

N. J., Ventnor City—Until Oct. 25, by Common Council, altering and building additions to waterworks system. J. T. G. Hand, clk.; advertised in this issue.

Neb., Sidney—Until Oct. 15, by city, removing some of present distributing system and laying main trunk system, involving 40,000 ft. 4-16 in. c.i. pipe, concrete or steel storage reservoir, 1,000,000 gal. capacity, also remodeling present power plant in connection with above, to include taking out 2 old boilers, adding 2 new ones and one new engine generator. R. D. Salisbury Co., 1415 East Colfax Ave., Denver, Col., engrs. Noted Sept. 30.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract furnishing and erecting two pumping plants for high pressure fire service, one at Lincoln Power Station of Boston Electric Ry. Co., Commercial St., and other at 38 Station Property of Edison Electric Illuminating Co., Atlantic Ave., to Westinghouse Electric & Mfg. Co., 10 High St., $174,469.

N. Y., New York—Dept. Water Supply, Gas & Electricity, Municipal Bldg., received bids Sept. 30, furnishing, delivering and installing additional discharge lines at 179th St. Pumping Sta., from Melrose Constr. Co., 103 East 125th St., $14,000; J. A. Greggory, $14,753; H. E. Fox, 81 East 125th St., $15,700. Noted Sept. 23.

★**Kan., Minneola**—City let contract for general construction, including pumps, hydrant, valves and 8,210 lb. galvanized pipe, to C. H. Everett, Hutchison; furnishing 9,235 ft. 4-6 in. pipe and 4,790 lb. specials, to Amer. Cast Iron Pipe Co., 716 Scarrit Bldg., Kansas City, Mo.; building tower and tank, to Chicago Bridge and Iron Wks., 105th and Throop Sts., Chicago, Ill.

★**Mo., Fayette**—City let contract extending waterworks system, involving earthen dam, riprap, concrete intake, riprapped spillway, cleanout, sluice gates, track rack, fine screens, 8 in. pipe line from dam site to present pipe line, etc., to McGraw & Frazier, Fayette. About $62,000. Noted Sept. 9.

★**Que., Montreal**—Administration Comm. let contract building 5 ft. conduit, 196 ft. long, from collecting well at waterworks to new electric pumps, to Atlas Constr. Co., 37 Belmont St. About $24,000.

Sewers

PROPOSED WORK

Pa., Hazelton—City Council plans to build 1,600 ft. extension to trunk line sewer in Diamond Ave. from Seybert to Cleveland Sts., cost $31,834; laying 600 ft. sewer in North Locust St. from 12th to 15th Sts., $27,773; arching 1,000 ft. Bunton Rock Creek from Mill St. to source, $67,184; building sewers in various other streets, $200,000. J. Rough, city engr.

Pa., Johnstown—City election Nov. 5 to vote on $1,650,000 bonds to build sewers.

Kan., Stockton—City had plans prepared for building sewers in various streets. About $65,000. E. T. Archer, New England Bldg., Kansas City, Mo., engr.

Kan., Wichita—City plans to build storm water sewer in East Douglas Ave. Dist. to include Washington, Central, Santa Fe and English Aves., 1st and Main St., 8,000 ft. long, to cover about 400 acres. About $175,000.

Neb., Chadron—See "Streets and Roads."

Wyo., Laramie—City election Nov. 2, to vote on $119,500 bonds to complete waterworks system.

★**Wyo., Clayton**—City rejected bids received Sept. 28, building sewers in Dists. 1, 2 and 3, involving 16,401 ft. 6-8 in. vitr. pipe, one 12,000 gal. and one 6,000 gal. septic tank. About $26,000. Work will be readvertised next spring. E. C. Smith, Clayton, engr.

Tex., Wichita Falls—City election Oct. 12, to vote on $700,000 bonds to build sanitary sewers and $260,000 bonds for storm sewers. J. Montgomery, city engr.

Okla., Ada—City having plans prepared building sewers in Dists. 11 and 12. About $30,000. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs.

BIDS DESIRED

N. Y., Middletown—Until Oct. 20, by State Hospital Comn., Capitol, Albany, building underground sewer connections for Chronic Hospital here. About $25,000. E. S. Elwood, secy.

N. J., Jersey City—Until Oct. 19, by Bd. Comrs., building sewerage system in Fisk St. Drainage Area. F. A. Dolan, city clk.; advertised in this issue.

N. J., Phillipsburg—Until Oct. 13, by Bd. Comrs., 32 Market St., building sewers; Sect. 10 involves 1,800 ft. 10 in. vitr. pipe; Sect. 11, 1,406 ft. 48 in. segmental block; Sect. 12, 1,854 ft. 8 in. vitr. pipe. H. R. Britton, dir. Streets & Pub. Impvts.; advertised in this issue.

Pa., Phila.—Until Oct. 15, by J. C. Winston, dir. Pub. Wks., furnishing labor and material building branch sewers in Beaumont, Perks, Ponnaffon, Bridge, Broad, Clarion, Durfor, Edmund, Euclid, 56th, 59th, Fillmore, Garfield, Royal, Hall, Juniper, Lawrence, Pike, Litchfield, Luzerne, Marshall, Mayland, Morse, Ontario, Oxford, Palethorp, Pentridge, Peters, Ridgewood, Sanger, 6th, 65th, 66th, Sydenham, Tabor, 3rd, 13th, Tower, 28th, Venango, Wakeling and Watts Sts., Buist, Chalmers, Chew, Lancaster, Lansdowne, Columbia, Park and Woodbine Aves. About $500,000.

Okla., Ada—Until Oct. 19, by Bd. City Comrs., furnishing labor and material building Sanitary Lateral Sewer Dists. 11 and 12. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Wakefield**—City let contract building sewerage system in North St. and private land, here and Stoneham, involving 5,485 ft. 15, 18 and 20 ft. pipe, to A. Cefalo 316 Belgrade Ave., Rosindale, $29,588.

★**N. Y., Long Island City**—M. E. Connolly, pres. Queens Boro., let contracts building sewers in Lyon Ave. and 39th St., to Green Contg. Co., 734 Vernon Ave., Astoria, $3,370 and $3,793 respectively; 76th St., to Saverio & Britton, $33,850; borings in Jamaica Bay, to C. S. Edwards, $8,800. Noted Sept. 23.

★**N. C., Gastonia**—City let contract building concrete sewerage disposal plant, to B. W. Harris, Durham. About $60,000. Noted Nov. 27, 1919.

O., Cleveland—S. H. Kleinman Realty Co., Natl. City Bldg., received bids building sewers and water mains in Yorkshire Heights allotment, involving 5,240 ft. 10-20 in. vitr. and 3,550 ft. 6-8 in. c.i. pipe, from A. Hosine, 635 Bradley Court, $33,503; E. Cesa & Son, 2462 Baldwin Rd., $34,106.

★**Ind., Muncie**—City let contract building South Side Sewer, to C. C. Harris & Co., Youngstown, O. About $355,000. Noted Aug. 19.

★**Mo., Joplin**—City let contract building sewers in various streets, involving 20,200 ft. 8-30 in. pipe, to J. L. Zeidler, Waterloo, Ia. About $64,500.

★**Tex., El Paso**—See "Buildings."

★**Okla., Miami**—City let contract building 12-18 in. vitr. clay sewers in various streets to L. B. James and I. J. Schoe, City Hall. About $30,000.

Bridges

PROPOSED WORK

Pa., Essington—Phila. & Reading R.R., 522 Phila. & Reading R.R. Bldg., having preliminary plans prepared by S. T. Wagner, ch. engr., for reconstructing bridge over Darby Creek here to include approaches, drawbridge, and changing from single to double track. Cost to exceed $50,000.

Pa., Harrisburg—State Bd. Pub. Grounds & Bldg. rejected bids Sept. 1, building Soldiers and Sailors Memorial Bridge, steel and concrete. Noted Sept. 16.

Pa., Johnstown—City election Nov. 5 to vote on $200,000 bonds to build bridges.

W. Va., Huntington—City had plans prepared and receives bids about Feb. 1, building 1,715 ft. overhead crossing on 23rd St. over Baltimore & Ohio R.R., Chesapeake & Ohio R.R., and Ohio Valley Electric R.R. tracks also over Amer. Car and Fdry. Wks. About $252,000. W. E. Beardslee, Huntington, engr.

O., Eaton—Preble Co. plans to repair 4 concrete and steel highway bridges, 18 ft. wide. About $25,000. R. G. Hunt, co. surv.

Minn., Crookston—Polk Co. rejected bids Sept. 4 building 7 bridges, Nos. 3408, 3411, 3423, 3424, 3428 and 3429. About $27,000. S. Steenerson, Crookston, engr. Noted Aug. 26.

Missouri—State Highway Dept., Jefferson City, plans to build rein.-con. through girder superstructure, over Little Clear Creek, on Sta. 1141 plus 64, 44 ft. span, 18 ft. roadway, involving 254.9 cu.yd. Class "B" concrete, 27,130 lb. reinforcing steel; rein.-con. through girder superstructure, over Sims Creek, on Sta. 831 plus 38, 30 ft. span, 18 ft. roadway, 201.5 cu.yd. Class "B" concrete, 20,570 lb. reinforcing steel; rein.-con. deck girder superstructure, over Coon Creek, on Sta. 672 plus 50, 24 ft. span, 18 ft. roadway, 2.6 cu.yd. Class "A," 26.1 cu.yd. Class "B" and 74.5 cu.yd. Class "C" concrete, 5,470 lb. reinforcing steel; rein.-con. slab superstructure over branch of Coon Creek, on Sta. 672 plus 50, 20 ft. span, 18 ft. roadway, 2.1 cu.yd. Class "A," 29.3 cu.yd. Class "B" and 78.5 cu.yd. Class "C" concrete, 3,510 lb. reinforcing steel; rein.-con. through girder superstructure, over Broyles Branch, on Sta. 185 plus 60, 30 ft. span, 18 ft. roadway, 56.6 cu.yd. Class "B" and 62.4 cu.yd. Class "C" concrete, 7,780 lb. reinforcing steel, all above on Osceola-Eldorado Springs Rd., St. Clair Co.; rein.-con. slab superstructure, over Big Branch Coon Creek, on Sta. 1485 plus 16, 20 ft. span, 18 ft. roadway, 2.1 cu.yd. Class "A," 29.3 cu.yd. Class "B" and 60.2 cu.yd. Class "C" concrete, 3,360 lb. reinforcing steel; rein.-con. slab superstructure and 4 rein.-con. wing walls, over Big Branch Coon Creek, on Sta. 860 plus 32, 16 ft. span, 18 ft. roadway, 2.3 cu.yd. Class "A" and 100 cu.yd. Class "B" concrete, 6,880 lb. reinforcing steel; rein.-con. slab superstructure, over Gallinipper Creek, on Sta. 114 plus 60, 20 ft. span, 18 ft. roadway, 2.1 cu.yd. Class "A," 29.3 cu.yd. Class "B" and 91.4 cu.yd. Class "C" concrete, 3,390 lb. reinforcing steel; rein.-con. slab superstructure and 1 concrete pier, over Fork of Little Weaubleau Creek, two 20 ft. spans, 18 ft. roadway, 3.9 cu.yd. Class "A," 55.3 cu.yd. Class "B" and 51.2 cu.yd. Class "C" concrete, 6,060 lb. reinforcing steel; rein.-con. slab superstructure and 1 concrete pier, over Little Weaubleau Creek, on Sta. 18 plus 50, two 20 ft. spans, 18 ft. roadway, 3.9 cu.yd. Class "A," 55.3 cu.yd. Class "B" and 51.2 cu.yd. Class "C" concrete, 6,060 lb. reinforcing steel; rein.-con. slab superstructures and 2 concrete piers, over Panther Creek, on Sta. 1844 plus 50, three 20 ft. spans, 18 ft. roadway, 5.7 cu.yd. Class "A," 79.2 cu.yd. Class "B" and 63.4 cu.yd. Class "C" concrete, 9,300 lb. reinforcing steel, all on Osage Valley Highway, St. Clair Co.

Missouri—State Highway Dept., Jefferson City, plans to build Stevens Branch Bridge over Stevens Branch, on Sta. 11 plus 66, involving 3 cu.yd. Class "A," 88.4 cu.yd. Class "B" and 21 cu.yd. Class "C" concrete, 6,830 lb. reinforcing steel; Clarks Creek Bridge, on Sta. 485 plus 35, 58.7 cu. yd. Class "A" and 130.9 cu.yd. Class "B" concrete, 19,350 lb. reinforcing and 52,300 lb. fabricated structural steel; Blacks Bridge over St. Francois River, on Sta. 642 plus 75, 15.2 cu.yd. Class "B" concrete, 1,220 lb. reinforcing and 33,600 lb. structural steel, 750 lin. ft. concrete piling; Clarks Creek Bridge over Clarks Creek, on Sta. 208 plus 50, 5.7 cu.yd. Class "A," 145.6 cu.yd. Class "B" and 40.6 cu.yd. Class "C" concrete, 13,390 lb. reinforcing steel, all above on Federal Aid Project 129, Wayne Co.; Salt Fork Bridge over Salt Fork at Kiser Hill, on Sta. 391 plus 16, Federal Aid Project 29, Saline Co., 23.3 cu.yd. Class "B" concrete, 1,620 lb. reinforcing and 36,000 lb. fabricated structural steel, 630 lin.ft. concrete piling; 11 rein.-con. slab superstructures, on Federal Aid Project 51, Howell Co., 29.2 cu.yd. Class "A," 821.2 cu.yd. Class "B" and 448.2 cu.yd. Class "C" concrete, 77,930 lb. reinforcing steel.

BIDS DESIRED

North Carolina—Until Oct. 12 by State Highway Comn., at Div. Office, Greensboro, building bridges and culverts on Federal Aid Project 98 A, Moore Co., involving 1,832 cu.yd. Class A concrete, 246,300 lb. reinforcing steel, 4,680 lb. plates and bolts, 990 lin.ft. untreated timber piles, etc. W. S. Fallis, Raleigh, state highway engr.

Ky., Harlan—Until Oct. 11, by Comrs. Harlan Co., building 545 ft. bridge over Cumberland River at Wallins Creek; 162 ft. bridge over Martins Fork of Cumberland River at Catrons Creek. N. Cory, bridge engr.; advertised in this issue.

Missouri—Until Oct. 25, by State Highway Dept., New Madrid, building skew pony truss superstructure over Drainage Ditch 18, on Sta. 670 plus 30, 60 ft. span, 18 ft. roadway, involving 360 lin.ft. creosoted timber piles, 74.2 cu.yd. Class "B" concrete masonry, 5,340 lb. reinforcement for concrete masonry, 28,400 lb. fabricated structural steel, 5,810 ft. timber, etc., cost $8,034; pony truss superstructure, over Hunter Lateral Drainage Ditch, on Sta. 769 plus 85, 50 ft. span, 18 ft. roadway, 240 lin.ft. creosoted timber piles, 41.1 cu.yd. Class "B" concrete masonry, 2,030 lb. reinforcement for concrete masonry, 23,300 lb. fabricated structural steel, 5,000 ft. lumber, etc., $5,709; I-beam superstructure, over Drainage Ditch 18, on Sta. 907 plus 91, 38 ft. span, 10 ft. roadway, 230 lin.ft. creosoted timber piles, 44.6 cu.yd. Class "B" concrete masonry, 2,650 lb. reinforcement for concrete masonry, 17,900 lb. fabricated structural steel, 4,100 ft. lumber, etc., $4,793; pony truss superstructure over Owen Bay Drainage Ditch, on Sta. 1061 plus 22, 70 ft. span, 18 ft. roadway, 240 lin.ft. creosoted timber piles, 46.1 cu.yd. Class "B" concrete masonry, 2,630 lb. reinforcement for concrete masonry 34,500 lb. fabricated structural steel, 6,800 ft. timber, $7,441. Above bridges on Federal Aid Project 40, New Madrid Co.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**R. I., North Scituate**—Water Supply Bd., City Hall, Providence, let contract building Danielson Pike Bridge, 35 ft. span, involving 880 cu.yd. concrete, 25,000 lb. steel and 6,000 cu.yd. earth excav., to T. F. McGovern, 95 Main St., Southbridge, $51,600. Noted Sept. 23 under "Providence."

★**Conn., Hartford**—Billings & Spencer Co., Park and Laurel Sts., let contract building concrete and steel bridge at plant to Ellison Constr. Co., 100 Wellington Ave. Cost to exceed $25,000.

★**Illinois**—Dept. Pub. Wks. & Bldgs., Springfield, let contracts building bridges on Sect. 15B, Federal Aid Project 14, Pulaski Co., to Heman Constr. Co., Title Guaranty Co., St. Louis, $24,217; Sect. 15C, Federal Aid Project 14, Pulaski Co., to Gen'l. Constr. Co., 582 Arcade Bldg., St. Louis, $15,000; Sect. 2B, Federal Aid Project 18, Champaign Co. to Zimmerly Bridge Co., Paris, $43,240; Sect. U2, Federal Aid Project 9, Fayette Co., to L. C. Kesler, Herrick, $70,185. Noted Sept. 23.

★**Wis., Racine**—Bd. Pub. Wks. let contract building Millmine Bridge, to have three 50 ft. spans, rein.-con., to Olson & Connolly, c/o P. H. Connolly, City Hall, $31,473. Noted Sept. 9.

★**Ia., Pocahontas**—Pocahontas Co. let contracts building one 16 x 50 ft. pony truss bridge, three 16 x 16 ft., one 16 x 22 ft. and one 16 x 32 ft. I-beam bridges, 16 ft. roadways, to C. L. Schoeboe, 1543 33rd St., Des Moines, $25,055; one 16 x 50 ft., one 20 x 50 ft. and two 20 x 55 ft. pony truss bridges, 16 and 20 ft. wide, to Vinton Eng. & Contg. Co., Vinton, $31,214. Noted Sept. 16.

★**Kan., Topeka**—Shawnee Co. let contract building 130 ft. rein.-con. rainbow arch bridge, 20 ft. roadway, near Wakarusa, to N. E. Marsh & Co., 205 Masonic Temple, Des Moines, Ia., $38,751. Noted Sept. 16.

★**N. D., Mott**—Hettinger Co. let contract building double span Rainbow arch bridge, concrete to J. D. Berry, Mott, $40,180. Noted Sept. 16.

Tex., Franklin—Robertson Co. received bids Sept. 16 building concrete and steel bridges, including four 50 ft. and one 70

Bridges (Continued)

ft. steel span, 16 ft. roadway, on Highway 14, from McCall-Moore Eng. Co., 308-9 Amicable Bldg., Waco, $75,817; Austin Bros., 1815 Coombs St., Dallas, $81,055; A. D. McClain & Co., Houston, $86,925. Noted Sept. 2.

Streets and Roads

PROPOSED WORK

Mass., Gardner — Town plans to build concrete road on Main St. from West Gardner Sq. to Union Sq. About $75,000. Sweet & Kendall, Gardner, engrs.

Conn., New Haven—City plans to pave various streets. About $200,000. F. L. Ford, city engr.

New York — State Highway Comn., 55 Lancaster St., Albany, received no bids Sept. 28 completing Rd. 5, 588-B, Greene Co. and Rd. 396, Nassau Co. Noted Sept. 16.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., rejected bids Sept. 20 regulating and grading 2 sections of Rockaway Blvd., Cooper Ave., Shell Rd. and Strongs Causeway. Noted Sept. 16.

Pa., Hazelton—City Council having plans prepared and receives bids in winter, paving 1,800 ft. Church St. from 8th to 17th Sts., cost $24,806; 2,000 ft. Poplar St. from Broad to Noble Sts., $28,176, both cement base with amiesite coat; 2,000 ft. North Locust St. from Diamond Ave. to 12th St., cement base with amiesite top or some other approved bituminous mixture, $42,-037, all above 40 ft. wide, also various other streets, amounting to $100,000. J. Rough, city engr.

Pa., Johnstown—City election Nov. 5 to vote on $250,000 bonds for paving and $500,000 bonds for repaving various streets.

W. Va., Berkeley Springs—Comrs. Morgan Co. plan to grade Great Cacapon Rd. About $45,000. Federal Government will appropriate 50 per cent of cost. C. A. Rothrock, Berkeley Springs, engr.

W. Va., Clendenin — City voted $40,000 bonds to grade, pave and drain various streets. Engineer not selected.

W. Va., Lewisburg—Greenbrier Co. voted $94,000 bonds to improve roads in Blue Sulphur Dist. Noted July 29.

W. Va., Middlebourne—Comrs. Tyler Co. plan to grade 4 mi. River Rd. About $47,-000. Federal Government will appropriate 50 per cent of cost. C. B. Cook, Middlebourne, engr.

Tenn., Jamestown—Fentress Co. voted $200,000 bonds to build two highways, one running from Pickett Co. line near Boatland to Morgan Co. line near Brewster Fork, crossing Dixie Short Route at Jamestown, and other starting at Overton Co. line at a point near Davidson and running to Morgan Co. line east of Banner Springs, crossing Dixie Short Route National Highway, at Grimsley.

Ky., Covington — City plans election to vote on $70,000 bonds to resurface 15 blocks Scott St. from 6th St. to Sterret Ave.; $30,000 bonds for 5 blocks Main St. from 4th to Pike Sts.; $50,000 bonds to improve 16 blocks Decoursey Ave., Latonia, from 32d to 45th Sts.

O., Toledo—Lucas Co. will sell bonds to pave 6.8 mi. Sylvania-Onetowora Rd., 16 ft. wide, concrete; 4.5 mi. Wynn Rd., 16 ft. wide, concrete, $167,000; 2 mi. South Street, 16 ft. wide, concrete, $103,000; 3.96 mi. Whitehouse-Archbold Rd., 10 ft. wide, waterbound macadam, $55,500; 4.37 mi. Brint Rd., 14 ft. wide, waterbound macadam, $72,600.

Wis., Two Rivers — City soon receives bids building 22,000 sq.yd. tar penetration macadam resurfacing on Washington, Monroe and 16th Sts. C. Popelka, City Hall, engr.

Minn., Hibbing — City opens bids about Nov. 1 for preparing foundation and laying concrete pavement on Central Ave. from 1st to Howard Sts. About $100,000. E. J. Halley, Hibbing, engr.

Kan., Wichita—Sedgwick Co. had plans prepared grading and surfacing 5.59 mi. Project 54, Sect. A, Cannon Ball Rd., 18 ft. wide, concrete or brick. M. Roseberry, Wichita, engr.

Neb., Chadron—City plans to grade, pave, build concrete curbs and install storm sewers in Impvt. Dist. 2 and 3. About $1,000,000. R. D. Salisbury Co., 1415 East Colfax Ave., Denver, Col., engrs.

N. D., Minot—Comrs. Ward Co. plan to build 18 mi. State and Federal Highway between Burlington and Carpio. Cost between $90,000 and $125,000.

Montana—State Highway Dept., Helena, plans to gravel surface 18 mi. Glasgow-Nashua Rd., Valley Co., cost $118,855; 6 mi. Glasgow-Jordan Rd., Valley Co., $41,-085; pave 0.373 mi. McLeod Ave., 18 ft. wide, Sweet Grass Co., $20,228. Federal Government has been asked to appropriate toward cost. J. N. Edy, state highway engr.

Mo., Keytesville—Chariton Co. had plans prepared grading, building culverts and wooden guard rail on 1.13 mi. road from Mussel Fork Creek westward, also on 0.60 mi. road from Chariton River southeast, involving 900 cu.yd. earth excav., 48,725 cu.yd. borrow, 2.2 cu.yd. Class "C" concrete, 1,093 lin.ft. wooden guard rail, etc. About $36,908. M. J. Hamck, Howe Bldg., Macon, engr.

Mo., St. Joseph—City received no bids resurfacing 1 mi. road between car tracks on 22d St. from Marion St. to Lovers Lane and from Marion St. to Highland Ave., also from Frederick Ave. to Oakland Park, 33 ft. wide, involving 1,500 sq.yd. vitr. brick, 230 lin.ft. plain curbing, 500 lin.ft. portland cement concrete sidewalks. About $39,836. W. K. Seitz, City Hall, engr.

Tex., Brownsville—Cameron Co. plans to expend $1,000,000 to build concrete roads. W. O. Washington, highway engr.

Tex., Burkburnett — City voted $50,000 bonds to improve streets, to include paving, etc. R. D. Laney, mayor.

Tex., Del Rio — Val Verde Co. having plans prepared grading, gravel surfacing and draining 7.29 mi. Highway 12 from 5 mi. north of here to Devils River, involving 15,000 cu.yd. earth, 3,000 cu.yd. solid and 2,500 cu.yd. loose rock excav., 14,700 cu.yd. gravel, 14,500 lb. reinforcing steel, 125 cu.yd. Class "A," 24 cu.yd. Class "B" and 142 cu.yd. 1:2:3 concrete. About $50,760. G. M. Jowers, co. engr.

Tex., Gainesville—Cooke Co. having plans prepared grading, gravel surfacing and draining 9.5 mi. Highway 40 from Denton Co. line to north boundary line Rd. Dist. 1, involving 95,000 cu.yd. unclassified earth excav., 24,776 cu.yd. gravel, 64,000 lb. reinforcing steel and 800 cu.yd. Class "A" concrete. About $169,619. Bryant & Huffman, 211-217 Littlefield Bldg., Austin, engrs.

Tex., Sinton—San Patricio Co. opens bids about Oct. 20, grading, surfacing and draining 12.04 mi. Highway 9 through Rd. Dist. 5, also 15.5 mi. Highway 9 through Rd. Dist. 1. A. C. Pancoast, Beeville, co. engr. Noted Sept. 23.

Tex., Wichita Falls—City election Oct. 12, to vote on $340,000 bonds to improve streets. J. Montgomery, city engr.

Okla., Alva—City having plans prepared paving 20 to 25 blocks. About $150,000. Johnson & Benham, Firestone Bldg., Kansas City, Mo., engrs.

Colorado—State Highway Dept., Denver, plans to build 6 mi. highway between Brush and Akron, Yuma Co., sand and clay. About $48,000. J. C. Maloney, state highway engr.

Col., Colorado Springs—City receives bids about Dec. 1 paving 8 mi. Colorado, Cascade, Platte and Nevada Aves., involving 62,030 lin.ft. concrete curb and gutter, 84,-254 cu.yd. earth excav., etc. About $1,148,-598. Bids will be received on 6 in. concrete pavement, Warrenite bitulithic on 5 in. concrete base, Warrenite bitulithic on 4 in. crushed stone base, sheet asphalt with binder on 5 in. concrete base and asphaltic concrete on 5 in. concrete base. F. F. Mallon, City Hall, engr. Noted April 1.

Idaho—State Highway Dept., Boise, plans to grade and drain 21.8 mi. Sawtooth Park Highway-Salmon North Fork Sect. Lemhi Co., cost $347,000; 7.88 mi. Lost River Highway connecting Federal Aid Projects 3 and 4, Custer Co., $85,000; 12.4 mi. Lost River Highway from Mackay to Darlington, Custer Co., $141,000. W. J. Hall, Boise, comr. Pub. Wks.

Ariz., Tucson—Pima Co. plans to build following roads: Casa Grande, cost $255,-000; Borderland, $182,000; Vail-Benson, $174,339; Nogales, $317,747; Ajo-Gunsight, $124,241; Ajo East, $680,000; Ajo West, $330,000; Mt. Lemon, $49,000; Twin Buttes, $90,424; Indian School, $2,300; North Tanque Verde, $39,324; South Tanque Verde, $22,500; Fort Lowell, $14,962; Sasabe, $315,723; Arivaca, $168,000; Kennison Dip, $7,700; Cienego Dip, $4,666; 6th Ave., $29,412; Pantano Bridge, $30,000. Total cost, $2,837,338. About $1,861,383 available.

Que., Montreal — Administrative Comn. plans to expend $42,000 for sidewalks. City to pay half and bordering property owners to pay other half.

BIDS DESIRED

N. Y., Brooklyn—Until Oct. 13, by E. Riegelmann, boro. pres., regulating and paving with permanent asphalt pavement on 6 in. concrete foundation roadway of Bath Ave. from 21st Ave. to Bay 35th St.; regulating and grading 86th St. from Stillwell to Gravesend Aves.; regulating, curbing and laying sidewalks on 86th St. from Stillwell to Gravesend Aves.; relocating car tracks and rails on Bath Ave. from 21st Ave. to Bay 35th St.

N. J., Freehold — Until Oct. 18, by Board Freeholders Monmouth Co., rebuilding Sect. 1-A and 1-B of Rumson Rd., Shrewsbury Twp. and Rumson Boro. W. M. Bergen, dir.; advertised in this issue. Noted Jan. 29.

Pa., Pittsburgh—Until Oct. 9, by city, grading, paving, curbing, etc., Homestead St. from Nevada to Pocono Sts., cost $72,500; Pocono St. and Lynn Way, $35,500; Carson St. from Smithfield to South 7th Sts., $116,700; Webster Ave. from Fullerton to Roberts Sts., $43,000, all to be sheet asphalt with concrete curbing.

Pa., Throop (Olyphant P. O.)—Until Oct. 11, by Boro. Council, paving 1,500 ft. Scranton Rd., 30 ft. wide. About 25,000. F. Stone, Court House, engr.

Delaware—Until Oct. 27, by State Highway Dept., Dover, building 6.57 mi. state highway from Laurel to Asbury Church, Sussex Co., Contr. CS-13; 0.93 mi. state highway through Georgetown, Sussex Co., Contr. CS-14; advertised in this issue.

North Carolina—Until Oct. 12, by State Highway Comn., at Division Office, Greensboro, surfacing 5 mi. Federal Aid Project 125 A, waterbound macadam, Alleghaney Co.; grading and top soiling 11.93 mi. Federal Aid Project 112, Caswell Co.; 21.82 mi. Federal Aid Project 99 B, Chatham Co.; 9.46 mi. Federal Aid Project 101 B, Randolph Co. W. S. Fallis, Raleigh, state highway engr.

Indiana — By Rd. Co. Comrs. building roads in following counties:

Oct. 11, St. Joseph, South Bend, 6,733 ft. F. A. Miller Rd., Portage Twp., concrete, C. Sedgwick, aud.

Oct. 15, Madison Co., Anderson, 16,076 ft. Benzenbower Rd., Anderson and Union Twps., gravel. H. P. Hardie, aud.

Oct. 27, Vigo and Sullivan Counties, Terre Haute, J. W. Adams et al. and Vincent Yeagher et al. Rds., on county line C. M. Lee, aud. Vigo Co., and F. M. Daniels, aud. Sullivan Co.

Oct. 30, Bartholomew Co., Columbus, 1 mi. Herring Rd., Jackson Twp., Decatur Co. and Rockcreek Twp., stone. R. Henderson, aud.

Ind., Ft. Wayne—Until Oct. 14, by city, grading, draining, curbing and paving 2,559 ft., Lumbard St., 26 ft. wide. About $37,-400. Bids will be received on all types of pavement. F. M. Randall, City Hall, engr. Noted Aug. 12.

Ind., Ft. Wayne—Until Oct. 26, by Comrs. Allen Co., grading, draining and paving 15,747 ft. Young Rd., 12 ft. wide, waterbound macadam. About $33,400. A. W. Grosvenor, co. engr. Noted Sept. 23.

Mich., Detroit—Until Oct. 22, by Bd. Rd. Comrs. Wayne Co., 220 County Bldg., grading, draining and surfacing 1.582 mi. State Trunk Line Rd. 10-19, 20 ft. wide, involving 6,022 cu.yd. earth excav., 18,567 sq.yd. concrete, 6,135 lin.ft. tile, 282 cu.yd. concrete in culverts, 49,500 lb. steel beams, etc.

Mich., Lake City—Until Oct. 15, by Bd. Rd. Comrs. Missaukee Co., grading, draining and surfacing 5.406 mi. State Trunk Line Rd. 55-2, Sect. B, involving 18,975 cu.yd. earth excav., 50,743 sq.yd. base course gravel, 416 lin.ft. pipe culverts, etc.

Wisconsin—Until Oct. 11, by State Highway Dept., Madison, grading and paving 2.71 mi. Madison-Sauk City Rd., (Springfield Hill), Federal Aid Project 12, Dane Co., involving 4,931 cu.yd. featheredge gravel surfacing.

Minn., Granite Falls — Until Oct. 19, by Yellow Medicine Co., graveling 10 mi. State Rd. 5. About $35,000. K. P. Caswell, Granite Falls, engr.

Missouri—Until Oct. 25, by State Highway Dept., New Madrid, building 1.81 mi. King's Highway, Federal Aid Project 40, New Madrid Co., involving 45,050 cu.yd. earth excav., 58,956 cu.yd. borrow, 186,658 sq.yd. specification "A" gravel pavement, 90.1 cu.yd. Class "B" and 113.8 cu.yd. Class "C" concrete masonry. About $228,-477.

Mo., Clayton—Until Oct. 13, by St. Louis Co., grading 7.3 mi. St. Charles Rock Rd. from Lackland to Taussig, involving 30,000 cu.yd. rough grading. About $25,000. W. Elbring, Clayton, engr.

Ark., Siloam Springs—Until Oct. 28, by Comrs., Benton Co., grading, surfacing, draining, also building steel bridges on 34.75 mi. road impvt. Dist. 5, involving 135,000 cu.yd. earth and 13,000 cu.yd. rock excav., etc. L. P. Kemper, Siloam Springs, secy. W. L. Winters, Ft. Smith, engr.

Streets and Roads (Continued)

Tex., Clarksville—Until Oct. 13, by R. J. Williams, judge Red River Co., grading, surfacing and building concrete and steel bridges and culverts on 4 mi. Highway 5 from Avery to English, involving 5.24 acres clearing and grubbing, 22,934 cu.yd. borrow and 2,865 cu.yd. earth excav., 159.8 sq.yd. Class "A" concrete, 4,865 cu.yd. gravel, 16,681 lb. structural steel, 3,074 ft. flooring, etc. About $53,990. P. Y. Creager, co. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Maine**—State Highway Dept., Augusta, will pave 4.71 mi. state highway, bituminous macadam, Newport Twp.; 5.87 mi. state highway, gravel, Sherman and Crystal; 7.44 mi. state highway, bituminous macadam, Corinna, and 5.52 mi. state highway, bituminous macadam, Dexter. Work will be done by day labor. Noted May 20.

★**Massachusetts** State Dept. Pub. Wks., Div. Highways, Boston, let contracts repairing 2,100 ft. state highway, macadam, Sterling, to Federal Contg. Co., Stoneham, $5,010; grading Dedham Parkway, East Dedham, to Powers Bros., 167 North Montello St., Brockton, $5,500; paving 2,000 ft. state highway, bituminous macadam, Saugus, to Rowe Contg. Co., 45 Milk St., Boston, $27,067; 10,450 ft. state highway, bituminous concrete, Salisbury, to J. E. Watkins, 29 Powow St., Amesbury, $58,214; 300 ft. state highway, bituminous macadam, Danvers, to McDonough Co., 620 Humphrey St., Swampscott, $5,605.

★**Mass., Boston**—City let contract building Caroline Ave., involving 350 cu.yd concrete walls and 8,000 cu.yd. excav., to J. C. Coleman & Sons Co., 1620 Tremont St., Roxbury. About $25,000. Noted Sept. 9.

New York—State Highway Comn., 55 Lancaster St., Albany, received bids Sept. 28, completing (a) Rd. 1,535, (b) Rd. 5,649, Rockland Co., (c) Rd. 1,208, Suffolk Co., (d) 1,496 Essex Co., from Rosoff Eng. Co., 15 Park Row, New York City, (a) $30,743, (b) $43,817; R. W. S. Corp., 30 Church St., New York City, (c) $179,955; W. P. McDonald Constr. Co., Penn Sq. Bldg., Phila., (c) $179,968; J. P. McDermott, Port Washington, (c) $189,087; Lane Constr. Co., 37 Colony St., Meriden, Conn., (d) $271,211; R. Hopkins, Troy, (d) $278,267. Noted Sept. 16.

★**N. Y., Long Island City** — M. E. Connolly, pres. Queens Boro., let contracts regulating and grading Arcadia Ave. and Havemeyer St. to R. A. Hess, 14 Queens St., Astoria, $1,386 and $23,596 respectively; Bridge Plaza, north and south (sheet asphalt), and Prospect St., to Sicilian Asphalt Paving Co., 41 Park Row, New York City, $32,480 and $26,204 respectively; College Point Causeway, to A. Mayers, $30,680; 8th Ave. and 1st St., to Union Paving Co., Bway. and 112th St., New York City, $48,085 and $57,125 respectively; Lawrence Ave., to H. J. Mullen, Fulton St., Jamaica, $61,340. Noted Sept. 23.

N. Y., New York — H. Bruckner, pres. Bronx Boro., received bids Sept. 29 regulating, grading, etc., (a) West 230th St., (b) East 180th St., (c) Guion Pl., (d) West 190th St., (e) Britton St., (f) Bronx Park Ave., paving (g) Van Buren St., (h) Faile St., (i) Morris Ave., (j) Fillmore St., building sewer in (k) Carlisle Pl., (l) Post Rd., from I. F. Cavalluzzo, (a) $3,959, (b) $4,606; M. DelBalso, 1434 Bryant St., (a) $4,204, (c) $6,556, (d) $16,099, (k) $4,399; A. DelBalso, (a) $4,759, (b) $4,941; F. Schneider, Bronx River, (b) $5,124, (d) $16,345; R. Palamo, (c) $6,590; G. DelGlasio, (c) $6,648; Clemente Contg. Co., 1195 Spofford St., (d) $16,373, (l) $17,569; De Angelo Contg. Co., (e) $11,852, (k) $3,658; Spadero Contg. Co., 827 East 217th St., (e) $14,632, (l) $14,180; O'Connell & Strada, (e) $14,724; J. L. Brusstar, Harlem River and 150th St., (f) $24,600, (g) $23,610, (h) $19,162, (i) $9,406, (j) $14,775; Uvalde Asphalt Paving Co., 1 Bway., (f) $24,782, (h) $18,762, (i) $9,354, (j) $15,275; Asphalt Constr. Co., 2197 Madison Ave., (f) $24,982, (h) $17,762, (i) $9,116, (j) $15,331; Union Paving Co., Bway. and 112th St., (g) $23,479; Davney Asphalt Co., 177th St. and Westchester Creek (g) $24,861; L. Russiano, (k) $4,358; Estates Contg. Co., (l) $14,600. Noted Sept. 23.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Sept. 29 regulating and repaving (a) Murray St., (b) East 97th St., (c) 48th St., (d) 49th St., (e) 2d Ave. (white oak or chestnut oak block), (f) 39th St., (g) furnishing and delivering 5,000 cu.yd. paving sand, from P. J. Kearns, 2306 Creston Ave., (a) $79,735; W. J. Fitzgerald, 547 West 45th St., (a) $82,354, (c) $3,475, (d) $5,543; Asphalt Constr. Co., 2197 Madison Ave., (b) $23,729; C. Helbrock, (b) $23,870; Burnside Constr. Co., 270 Burnside Ave., (b) $25,805; Sicilian Asphalt Co., 41 Park Row, (c) $3,066, (d) $5,341; Uvalde Asphalt Paving Co., 1 Bway., (c) $3,157, (d) $5,437; Annorock Eng. & Constr. Co., (e) $39,777; Hastings Paving Co., 25 Broad St., (f) $13,343; Ames Bldg. Material Co., 3437 Kingsbridge Ave., (g) $3,675; G. Eaton, (g) $3,825; Manhattan S. & G. Co., (g) $4,139. Noted Sept. 23.

★**N. Y., S. I., St. George** — C. D. Van Name, pres. Richmond Boro., let contracts repaving with concrete Arthur Kill Rd. from Fosters to Woodrow Rds., and from Sharrots to Foster Rds., to W. P. McDonald, Port Richmond, $163,120 and $165,071 respectively, from Woodrow to Richmond Rds., to J. Donovan, 2205 Richmond Terrace, Port Richmond, $164,042; from Bentley St. to Sharrots Rd., to J. Johnson Son, West New Brighton, $214,487. Noted Sept. 16 and 23.

Alabama—State Highway Dept., Montgomery, received bids draining, grading and surfacing 5.44 mi. road between Tuskegee and Girard, sand clay, Russell Co., from L. G. Rawlinson, Montgomery, $38,936, J. F. Giddens & Sons, Troy, $39,955; 12.05 mi. Chisholm Rd. from Florence to Tennessee state line, chert and gravel, Lauderdale Co., from W. T. Taylor Constr. Co., Sylacauga, $156,888, R. W. Taylor, Florence, $171,793, P. Wallace, Trafford, $183,514. Noted Sept. 16.

★**O., Cleveland**—City let contract grading, draining and paving East 140th St. from St. Clair to Aspinwall Aves., brick, to Gould & Maybeck, 823 East 150th St., $88,513. Noted Sept. 9.

★**Michigan**—State Highway Dept., Lansing, let contract shaping present base and surfacing 1.366 mi. State Trunk Line Rd. 10-32 Sect. A, Oakland Co., involving 16,029 sq.yd. Willite, to Willite Rd. Constr. Co., Detroit, $40,138.

★**Mich., Grand Rapids**—Comrs. Kent Co. let contract grading, draining and surfacing 3.647 mi. State Trunk Line Rd. 44-3, 16 ft. wide, involving 26,712 cu.yd. earth excav., 34,236 sq.yd. gravel surface, 483 lin.ft. pipe culverts, etc., to H. J. Taber, 214 Eastern Ave., N. E., $52,686. Noted Sept. 16.

★**Mich., Lapeer**—Rd. Rd. Comrs. Lapeer Co. let contract grading, draining and surfacing 2.993 mi. State Trunk Line Rd. 21-12, 16 ft. wide, involving 14,274 cu.yd. earth excav., 28,093 sq.yd. gravel surface, 604 lin.ft. tile culverts, etc., to J. Decker, Rogers, $44,062. Noted Sept. 2.

★**Mich., Mason**—Ingham Co. let contract building 5.628 mi. road, 2 course Class "B" gravel, to A. Lathrop and C. E. Hodge, Dansville, $46,359.

★**Mich., Ontonagon**—Village and Comrs. Ontonagon Co. let contract paving Main St., concrete and bituminous concrete, to Smith & Sparks, Shelden Dee Bldg., Houghton. About $30,000.

★**Mich., Rogers**—Presque Isle Co. let contract grading, draining and surfacing 2.99 mi. State Trunk Line Rd. 10-24, Sect. A, involving 24,300 cu.yd. earth excav., 28,656 sq.yd. gravel surface, 3,215 lin.ft. guard rail, 237 lin.ft. pipe culverts, etc., to E. McClure, Posen, $57,629. Noted Sept. 2.

★**Illinois** — Dept. Pub. Wks. & Bldgs., Springfield, let contracts to Buis & Olson, St. Joseph, Mo., grading Sect. 13A, Union Co. and Sect. 14A, Union and Pulaski Counties, both Federal Aid Project 14, $223,000; Sect. 15A, Federal Aid Project 14, Pulaski Co., $71,920; Cameron, Joyce & Co., Keokuk, Ia., Sect. 16A, Federal Aid Project 14, Pulaski Co., $70,628; M. Hayes & Son, Janesville, Wis., Sect. 2A, Federal Aid Project 18, Champaign Co., $11,716. Noted Sept. 23.

★**Ill., Springfield**—City let contract paving 3,000 ft. East South Grand Ave., 18 ft. wide, involving 6,000 sq.yd. 3 in. vitr. brick on 5 in. concrete base, to F. Nelch, 1613 South 5th St., $24,954.

Wisconsin—State Highway Comn., at div. office 5, Batavian Bank Bldg., La Crosse, received bids Sept. 29, grading and paving (1) 2.47 mi. Black River Falls-Alma Center Rd., Federal Aid Project 84, Jackson Co., involving (a) 24,718 sq.yd. shale surfacing, (2) 3.7 mi. Alma-Mondovi Rd., Federal Aid Project 135, Buffalo Co., (a) 32,979 cu.yd. earth excav., (b) 602 cu.yd. concrete in culverts, (c) 2.2 acres clearing and grubbing, (d) 3,996 cu.yd. borrow excav., from Kelly Bros., Taylor, (a) $0.35 per sq.yd., total cost, $8,652; Mason & Metzger, Blair, (1a) $0.35, $8,652; Hoffman & Meeks, Black River Falls, (1a) $0.75, $18,539; Ofstie & Mulheron, Spring Valley, (2a) $0.60, (2b) $30, (2c) $175, (2d) $0.65, total cost, $46,092; Brogan & Burns, Breen Bay, (2a) $0.65, (2b) $32, (2c) $300, (2d) $0.65, $49,110; Universal Eng. Co., Eau Claire, (2a) $0.89, (2b) $32, (2c) $145, (2d) $0.91, $58,406. Noted Sept. 23.

Wisconsin—State Highway Comn. Madison, received only bid Sept. 28 grading and building concrete culverts on 0.45 mi. Lake Shore Rd., Federal Aid Project 169, Sheboygan Co., from Clos & Myer, 1600 Oakland Ave., Milwaukee. About $25,000. Work involves 15,259 cu.yd. excav. and 345.7 cu.yd. Class "A" concrete.

★**Wis., Waukesha** — Waukesha Co. let contract to Universal Eng. Co., Eau Claire, grading and constructing bridge on Oconomowoc Relocation, involving 20,000 cu.yd. grading, $0.89, 2.1 acres clearing and grubbing, $150 per acre, etc. Noted Sept. 23.

★**Ia., Clinton**—Clinton Co. let contract grading and draining 17.4 mi. Lincoln Highway from here to 2 mi. west of De Witt, involving 60,000 cu.yd. earth excav., etc., to Koss Constr. Co., 2818 5th St., Des Moines. About $840,000. Noted Sept. 2.

★**Ia., Newton**—City let contract paving various streets, involving 36,000 sq.yd. rein.-con. paving and 30,600 lin.ft. curb or curb and gutter, to J. S. McLaughlin & Sons, Mankato, Minn., $4.85 per sq.yd. and $1.58 per lin.ft. respectively. Noted Aug. 26.

★**South Dakota**—State Highway Dept., Pierre, let contracts improving (1) 6.97 mi. Sioux Falls-Elk Point and Sioux City Rds., 24 ft. wide, (2) 10.93 mi. Elk Point-Beresford and Sioux Falls Rds., 36 ft. wide, (a) grading and building drainage structures, (b) graveling, to Mankato Constr. Co. and C. G. Sigwald, Mankato, Minn., (1a) $55,297, (1b) $42,298; Shipman Constr. Co., Sioux City, Ia., (2a) $50,441, (2b) $46,975. Noted Aug. 19.

★**Missouri** — State Highway Dept., Palmyra, let contracts to County Court, Palmyra, building 10.26 mi. Sect. A, Hannibal-West Ely Div. of Pikes Peak Ocean to Ocean Highway, 24 ft. wide, Federal Aid Project 62, Marion Co., $78,609; building culverts on Sect. B, $11,434; rein.-con. through girder superstructure (Bear Creek Bridge) over Bear Creek, on Sta. 285 plus 12, to have one 40 ft. span, 18 ft. roadway, $7,475; rein.-con. skew through girder superstructure (Kruse Bridge) over Bear Creek, on Sta. 408 plus 22, to have one 40 ft. span, 18 ft. roadway, $6,835, rein.-con. skew through girder superstructure (Minnow Branch Bridge) over Minnow Branch, on Sta. 14 plus 52, to have one 40 ft. span, 18 ft. roadway, $7,365, all on above project. Noted Sept. 16.

★**Tex., Ft. Worth**—Tarrant Co. let contracts grading and draining 1.76 mi. Arlington-Grapevine Rd. from Trinity River north to Rock Island R.R., 24 ft. wide, to D. H. Purvis, 1123 West 9th St., $45,984; building rein.-con. drainage structures on 5.48 mi. White Settlement and Ft. Worth-Lake Dam Rd., 16 ft. wide, to Womack Constr. Co., Sherman, $50,893; building drainage structures and sub-base complete of native stone, 8 in. deep, on 8.74 mi. White Settlement Rd. from Five Mile Bridge to Parker Co. line, 16 and 24 ft. wide, to W. P. McCoy, Ft. Worth, $60,700. Noted Sept. 16.

Tex., Franklin — Robertson Co. received bids Sept. 16 improving 17.99 mi. Highway 14 from Nesbit to point 2 mi. north of Wheelock, 15 ft. wide, involving (a) 114.9 acres clearing and grubbing, grading road, 83,797 cu.yd. borrow and surfacing road with gravel, (b) building rein.-con. and steel span bridges and concrete culverts, from Haden & Austin, 727 Kress Bldg., Houston, (a) $116,419; Harris & Powell, Tyler (a and b) $184,669; Cook & Arrington, Crockett, (a and b) $186,078. Noted Sept. 2.

★**Tex., Jasper** — Jasper Co. let contract grading and building rein.-con. bridges and culverts on 12.4 mi. Highway 8 from Buna southeast to Newton Co. line, 24 ft. wide, to H. F. Bland, San Augustine, $68,434; including 10 per cent for engineering and contingencies. Noted Sept. 30.

★**Tex., Montague** — Montague Co. will grade, surface and build bridges and culverts on 3.92 mi. Highway 2D, Federal Aid Project 128C, involving 3.6 acres clearing, 23,702 cu.yd. borrow and 99 cu.yd. loose rock excav., 3,160 cu.yd. gravel, 4,999 cu.yd. clay surfacing, 12,825 lb. reinforcing and 35,744 lb. structural steel, 69.9 cu.yd. Class "A," 32.6 cu.yd. Class "B" and 33.7 cu.yd. Class "C" concrete, etc. About $50,148; including 10 per cent for engineering and contingencies. Work will be done by day labor under supervision of W. T. Russell, co. judge.

Tex., Paris — Lamar Co. received bids Sept. 24, grading and building rein.-con. bridges and culverts on (a) 27.7 Highway 5, Fannin Co. to Red River, (1) clearing and grubbing, grading, excavating, etc., (2) rein.-con. drainage structures, (b) 4.85 mi. Highway 5, Federal Aid Project 38, (1) Topeka mixture, without curbing, (2) with

Streets and Roads (Continued)

curbing, (3) concrete pavement (c) 22.16 mi. Highway 19 from Delta Co. line to Oklahoma State line, (1) clearing and grubbing, excavating, etc., (2) rein.-con. drainage structures, (d) 4.87 mi. Highway 19 east and west of here, (1) Topeka mixtures without curbing, (2) with curbing, (3) concrete pavement, from Smith Bros. and Healey Constr. Co., c/o Smith Bros., Crockett, (a-1 and 2) $134,975, (b-1) $131,500, (2) $182,700, (3) $252,369, (c) $140,008, (d-1) $134,602, (2) $185,821, (3) $262,284; A. D. McClain Co., Houston, (a-2) $68,850, (c) $66,156; McCall-Moore Eng. Co., 308 Amicable Bldg., Waco, (a-2) $71,520, (b) $71,680, concrete curbing only, (d) $76,374, concrete curbing only; Williams, Burk & Co., Jacksonville, (c) $72,348. Noted Sept. 16.

★**Tex., Texarkana**—City Council let contract paving State Line Ave., Pine, Maple, 3rd and 7th Sts., to Taylor & Hamilton, Chicago, Ill. About $300,000. Work involves 60,000 sq.yd. asphalt concrete base. Noted Aug. 19.

★**Okla., Oklahoma**—City let contract to Western Paving Co., Terminal Bldg., paving 6½ blocks Francis Ave. from 19th St. to Lots 1 and 2, Mossman Pl., involving 6,500 sq.yd. sheet asphalt, at $3.45 per sq.yd., 2,000 cu.yd. earth excav., $1.53, 500 cu.yd. embankment, $0.70, 3,800 lin.ft. straight curb, $1.25, 400 lin.ft. radical curb, $1.30, etc., total cost, $32,303.

★**Arizona**—State Highway Dept. Phoenix, let contract to M. Ryan, 935 Bway., San Diego, Cal., $143,112, gravel surfacing 8.6645 mi. Sect. D. Florence Superior Highway, Federal Aid Project 23, involving 46,430 cu.yd. unclassified excav. in roadway, cost $1.65 per cu.yd., 20,760 unclassified borrow excav., $1.65, 730 cu.yd. unclassified structural excav., $1.65, structures of 20 ft. span or less (State furnishing pipe), $18,885, structures over 20 ft. span (State furnishing cement and steel), $11,995. State furnished materials, $17,826; 10% for engineering and contingencies, $16,094, total cost, $177,031.

Arizona—State Highway Dept., Phoenix, received bids Sept. 4, building 8.8516 mi. Sect. A, Tuscon-Nogales Highway, Federal Aid Project 29, from West Coast Constr. Co., work involves 5,825 cu.yd. unclassified excav. in roadway, at $1.24 per cu.yd., 22,605 cu.yd. unclassified borrow excav., $1.24, etc., Alternate No. 1, 93,351 sq.yd. plain concrete pavement (State furnishing cement and rock in stock piles along subgrade) $1.85, Alternate 1 A, 93,351 sq.yd. plain concrete pavement, (State furnishing cement) (contractor furnishing rock), $2.17, Alternate 1 B, 93,351 sq.yd. plain concrete pavement (State furnishing cement) (contractor furnishing rock), $2.37, Alternate 4, 93,351 sq.yd. 2 in. bitulithic on 4 in. asphaltic concrete base, (State furnishing bitulithic and asphaltic cement) (contractor furnishing rock), $2.50, 3,460 cu.yd. Caliche or gravel shoulders, $2, structures of 20 ft. span or less (State furnishing cement and steel), $2,503, structures over 20 ft. span, (State furnishing cement and steel), $7,836, bid with Alternate 1, $227,355, State furnished material, $165,626, total cost $392,-989, bid with Alternate 1 A, $257,227, State furnished material, $104,876, total cost, $362,103, bid with Alternate 1 B, $275,897, State furnished material, $104,876, total cost $380,773, bid with Alternate 4, $287,-566, State furnished material, $49,991, total cost $336,557; McPeek, Burton & Brickman, 5,825 cu.yd. unclassified excav. in roadway, $1.50, 22,605 cu.yd. unclassified borrow excav., $1.25, etc., Alternate 1, 93,351 sq.yd. plain concrete pavement (State furnishing cement (contractor furnishing rock), $2.45, 3,460 cu.yd. Caliche or gravel shoulders, $2.50, structures of 20 ft. span or less, $3,204, structures over 20 ft. span, $10,421, subtotal, $291,584, State furnished material, $104,876; 10% for engineering and contingencies, $39,646, total cost $436,106.

★**Ariz., Florence**—Pinal Co. let contract building highway through Ray, to J. Davey, Superior, $58,920, including 10 per cent for engineering and contingencies, etc.

★**Cal., Stockton**—San Joaquin Co. let contracts grading Hammer Lane and Upper Conperopolis Rd., to C. Morieing, Stockton, $48,875 and $63,919 respectively; Waterloo Rd., to F. E. Brooks, Stockton, $30,096. Noted July 15.

Excavation and Dredging

PROPOSED WORK

Minn., Fairmont—Ditches—Martin Co. received no bids Aug. 31 building Judicial Ditch 89; no bids on tile work for Judicial Ditch 85, open work bids for Judicial Ditch 85 rejected.

Minn., Granite Falls—Ditch—Yellow Medicine Co. and Lyon Co. (Marshall) received no bids Sept. 10 building Judicial Ditch 17. About $25,000. J. Norgaard, Granite Falls, engr. Noted Sept. 2.

BIDS DESIRED

Fla., Tampa—Dredging—Until Nov. 1 by Bd. of Port Comrs. dredging for terminal construction on Ybor Channel; advertised in this issue.

Ill., Watseka—Drainage—Until Oct. 16, by L. Schafer and A. Steiner, comrs. Artesia Twp. D.D. 4, at office of C. South, clk., Iroquois Co., furnishing labor and material for building said district. Main ditch, 9,420 ft. long, involves 5,716 cu.yd. excav.; North Branch, from Sta. O to Sta. 185, 18,500 ft. long, 21,225 cu.yd. excav., also from Sta. 185 to Sta. 254 plus 60, 6,960 ft. long, 7,639 cu.yd. excav.; South Branch, 23,600 ft. long, 26,444 cu.yd. excav.

Ia., Nevada—Drainage—Until Oct. 14, by F. E. King, aud. Story Co., building Sherman Twp. D.D. 98, involving 37,173 ft. 6-20 in. tile, etc. W. O. Olson, Nevada, engr.

Ia., Red Oak—Ditch—Until Oct. 15, by Bd. Supervs. Montgomery Co., building 5.5 mi. open ditch in D.D. 5, involving 185,000 cu.yd. excav. Former bids rejected. P. Ostrom, aud. Noted Sept. 16.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Council Bluffs**—Drainage—Pottawattamie Co. let contract for drainage work; Sect. 1 involves 160,000 cu.yd. excav., Sect. 2, 1,000 cu.yd. excav., to E. A. Wickham & Co., 19 Scott St., $0.22 and $0.25 respectively.

★**Ia., Eldora**—Drainage—Hardin Co. let contract building D D 55, involving 268,022 cu.yd. excav., to L. C. Wood & Co., Alden, and R. J. Phelps, Davenport; furnishing labor for building D D 70, involving 16,600 ft. 6-30 in. tile, to J. A. Jensen, 4,800 ft. 30 in. tile, to Natl. Sewer Pipe Co., 11,800 ft. 6-14 in. tile, to Eldora Pipe & Tile Co., Eldora; furnishing labor for building D D 123, involving 18,800 ft. 8-36 in. tile, to Anderson & Emple, 2,900 ft. 36 in. tile, to McComb Sewer Pipe Co., 5,500 ft. 32 in. tile, to Natl. Sewer Pipe Co., 10,400 ft. 8-14 in. tile, to Eldora Pipe & Tile Co., Eldora.

★**Ia., Ft. Dodge**—Ditch—Bd. Supervs. Webster Co. let contract furnishing labor for buliding D D 318, involving 20,887 ft. 6-32 in. tile, to E. Johnson, Collender, tile, to McHose Sand & Tile Co., Boone; furnishing labor for building D D 287, involving 9,210 ft. 32-34 in. tile, to T. Larson, Collender, tile, to Humboldt Gravel & Tile Co., Humboldt. Noted Sept. 2.

★**Minn., Fairmont**—Ditches—Martin Co. let contract building Judicial Ditch 88 to Thompsen & Anderson, Windom, $19,447; Ditches 90 and 91 to Ceylon Cement Tile Co., Ceylon, $17,440 and $71,143 respectively; Ditch 95 to Elmore Cement & Tile Co., Elmore, $12,280. Noted Aug. 26.

★**Minn., Redwood Falls**—Ditches—Redwood Co. let contract for labor for building Judicial Ditch 25, to Hansen & Truelson, Mankato, $15,388, tile, to New Ulm Brick & Tile Co., New Ulm, $13,200; labor for building Ditch 65, to J. Gerding, Redwood Falls, $5,985, tile, to Natl. Sewer Pipe & Tile Co., Webster City, Ia., $5,285. Noted Sept. 2.

Industrial Works

PROPOSED WORK

Mass., Cambridge—A. R. Hyde & Co., 432 Columbia St., having plans prepared by Tuck & Gilman, archts., 24 School St., Boston, for 3 story, 50 x 100 ft., brick and concrete factory addition. About $75,000.

Mass., Cambridge—Kingston Knitting Co., 37 Kingston St., Boston, plans to build 3 story, rein.-con. mill, here.

Mass., Everett (Boston P. O.)—Boston Elevated Ry. Co., 108 Massachusetts Ave., Boston, having plans prepared by D. P. Robinson, engr. and archt., 125 East 46th St., New York City, for several rein.-con., brick and steel shops, rein.-con. flooring, concrete foundations. About $3,000,000.

Mass., Somerville (Boston P.O.)—C. R. Makepiece & Co., engrs., 430 Butler Exchange Bldg., Providence, soon lets contract building 1 story addition to mill, concrete, brick and steel, rein.-con. flooring, concrete foundation, for Amer. Tube Wks., Somerville Ave. About $75,000.

Mass., West Springfield (Springfield P. O.)—Company is being organized, and plans to build large paper plant, on Park St. A. Laubscher, 77 Ft. Pleasant Ave., pres. Architect not selected.

Conn., Ansonia—Amer. Brass Co., Liberty St., soon lets contract building 1 story, 340 x 400 ft. addition to factory, rein.-con. brick and steel, rein.-con. flooring, concrete foundation. About $700,000. Private plans.

Conn., New Haven—Connecticut Adamant Plaster Co., River St., plans to build 1 story, brick and steel plant. About $150,000.

N. Y., Brooklyn—P. Tillion & Son, archts. and engrs., 103 Park Ave., New York, soon let contract altering rein.-con., brick and steel factory, rein.-con. flooring, on 53rd St. here, for Grand Corrugated Paper Co., 30 Crosby St., New York City. About $50,000.

N. Y., New York—A. C. Chesley & Co., 277 Rider Ave., plans to build 2 story, 50 x 200 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on 132nd St. and Cypress Ave. About $100,000. Architect not selected.

N. J., Newark—Natl. Lock Washer Co., 65 Johnson St., having plans prepared by Fletcher-Thompson, Inc., archts. and engrs., 1089 Broad St., Bridgeport, Conn., for large concrete and brick addition to plant.

N. J., Trenton—Gasser Mfg. Co. having plans prepared by W. A. Klemann, archt., 1st Natl. Bank, for 1 story, 100 x 100 ft. factory. About $85,000.

Pa., Johnstown—Johnstown Sanitary Dairy Co. having plans and specifications made by McCormick Co., archts., Century Bldg., Pittsburgh, for alterations and additions to 2 story, brick and steel factory, on Somerset St. Cost between $50,000 and $60,000.

Ga., Trion—Trion Co., Inc., having plans prepared by Jackson & Moreland, engrs., 387 Washington St., Boston, Mass., for large 1 story rein.-con. and brick addition to power plant.

O., Cincinnati—Truck Delivery Co., 4424 Ashland Ave., Norwood, had plans prepared by C. M. Foster, archt. and engr., 112 East 4th St., for 1 story, 140 x 229 ft., rein.-con. garage, rein.-con. flooring, concrete foundation, on Hopkins Ave. and Montgomery Rd. About $70,000.

O., Cleveland—Allen Theatre Enterprises, Richmond East St., Toronto, Ont., plan to construct power plant for theatre and commercial building on Euclid Ave. and East 14th St. here. About $350,000. A. M. Allen Co., 1900 Euclid Ave., engrs.

O., Cleveland—J. De Kaiser, East Ohio Gas Bldg., plans to build 2 story, brick and steel factory, brick foundation, on East 34th St. and Payne Ave. About $50,000. Architect not selected.

O., Cleveland—Natl. Power Mchy. Co., 1914 Scranton Rd., plans to build warehouse, to have 50,000 sq.ft. floor space.

O., Sidney—Wagner Mfg. Co. having plans prepared by E. McGeorge, archt. and engr., 1900 Euclid Ave., Cleveland, for 1 story, 80 x 180 ft., rein.-con., brick and steel foundry, rein.-con. flooring, brick and concrete foundation. About $75,000.

Ind., Ft. Wayne—International Harvester Co. of America, Inc., 606 South Michigan Ave., Chicago, retained Day & Zimmerman, engrs., 611 Chestnut St., Phila., Pa., to design and supervise the construction of proposed motor truck manufacturing plant, on 140 acre site here.

Ill., Rock Island—Rock Island Transfer & Storage Co., 124 West 17th St., plans to build 5 story, 75 x 130 ft. concrete warehouse. About $90,000. B. L. Burke, pres.

Wis., Camp Douglas—Wisconsin Natl. Guard having plans prepared by H. Hengels, state military archt. and engr., 425 East Water St., Milwaukee, for 1 story, 45 x 50 ft., brick and tile power and engine house, concrete flooring and foundation.

Wis., Manitowoc—Drost Box Mfg. Co., 1116 South 9th St., plans to build 3 story, 120 x 260 ft., brick, rein.-con. and steel factory, brick foundation. About $50,000. Architect not selected.

Wis., Milwaukee—City having plans prepared by Sewerage Comn., for 100 x 225 ft. electric power plant. Plans will be prepared later for boiler house, to have six 500-600 hp. boilers; both on Jones Island. T. C. Hatton, city engr.

Wis., Milwaukee—Modern Steel Casting Co., 1400 33rd St., plans to build 1 story, 80 x 500 ft. or 70 x 350 ft. brick and steel foundry, concrete foundation. Private plans.

Wis., Milwaukee—Backer & Pfaller, archts., 216 West Water St., opens bids about Oct. 12, building 1 story, 90 x 150 ft. brick factory, concrete foundation, on State St., for Shope Brick Co., 216 West Water St.

Industrial Works (Continued)

Wis., Milwaukee—Viktry Mfg. Co., 38th St. and Hillside Lane plans to build 1 story, 50 x 158 ft. brick factory, rein.-con. flooring, concrete foundation, on 38th St., C. Malig, 745 45th St., archt.

Kan., Burlingame—City having plans prepared by Black & Veatch, engrs., Mutual Bldg., Kansas City, Mo., for power plant. About $70,000. L. E. Doty, clk.

Kan., Wellington—City having plans prepared by Johnson & Benham, engrs., Firestone Bldg., Kansas City, Mo., for power plant. About $60,000. L. A. Walton, clk.

Mo., St. Louis—Metallic Industries, Inc., 2209 Pine St., plan to build toy factory. About $100,000. G. C. Hosch, pres. Architect not selected.

Ark., Ft. Smith—Ft. Smith Furniture Co. plans to build 2 story, 60 x 220 ft. brick and mill construction plant. About $75,000.

Tex., Dallas—A. Marshall, Oklahoma, Okla., having plans prepared for 2 story ice cream factory and milk handling station, brick, on Kentucky St. here. About $100,000.

Okla., Tulsa—Boley Bros., 110 West California Ave., plan to build factory. About $150,000. Architect not selected.

BIDS DESIRED

Mass., Boston—Downes Lumber Co., 470 Harrison Ave. receiving bids building 1 story, rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on Harrison Ave. About $50,000. Warren & Gerrish, c/o Warren Terminal Wharf Co., Charlestown, archts.

Mass., Worcester—Conroy Motor Co., 671 Main St., receiving bids building 2 story, 90 x 150 ft. garage and service station, brick, stone, steel and concrete, rein.-con. flooring, concrete foundation, on Wellington St. About $100,000. A. F. Gray, 53 State St., Boston, archt. and engr.

Conn., Hartford—Until Oct. 19, by Bd. Contract & Supply, building 2 story, 50 x 120 ft., brick, concrete and steel machine shop, rein.-con. flooring, concrete foundation, on John St. About $125,000. Whiton & McMahon, 36 Pearl St., archts.

Pa., Pekerstown—Pittsburgh Cut Flower Co., receiving bids building 57 x 72 ft. boiler house, brick and steel, rein.-con. flooring. Cost between $60,000 and $75,000. C. Bickel, May Bldg., Pittsburgh, archt.

Md., Baltimore—Amer. Ice Co., Calvert Bldg., receiving bids constructing 33 x 82 x 99 ft., storage building, 82 ft. high, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Montford Ave. near Chase St. About $200,000. W. Mortenzen, 209 West 76th St., New York City, archt. and engr.

W. Va., McDonald—New River Co. receiving bids building 1 story brick and steel factory and machine shop to cover 35,000 sq.ft. floor space. Cost between $225,000 and $250,000. Private plans.

Fla., Jacksonville—Ford Motor Co., Highland Park, Detroit, Mich., receiving bids building 2 story, rein.-con. and brick assembling plant, concrete flooring, here. About $250,000.

Wis., Jackson—Until Oct. 18, by Jackson Canning Co., building 1 story, 80 x 130 ft. brick and timber warehouse, rein.-con. flooring, concrete foundation. H. Miller, 646-24th St. Milwaukee, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Madison**—Madison Woolen Co. let contract building 2 story, 70 x 160 ft., brick and concrete warehouse, concrete foundation, to McNally Bldg. Co., 41 Concord St., Framingham, Mass. About $75,000.

★**Vt., Barton**—Nickel & Cross, 457 West 45th St., New York City, let contract constructing 3 story mill building, boiler house and dry kiln, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Flynt Bldg. and Constr. Co., Palmer, Mass. About $100,000.

★**Mass., Athol**—Union Twist Drill Co., 70 Monroe St., let contract building 1 story, 60 x 112 ft., brick and concrete factory, concrete flooring and foundation, to E. J. Cross Co., Foster St., Worcester. About $50,000.

★**Mass., Boston**—Tileston Estate, 240 Purchase St., let contract altering mercantile building to D. H. Jacob & Son, 77 Summer St. About $150,000.

★**Mass., Lynn**—General Electric Co., 84 State St., West Lynn, let contract building 1 story, 130 x 250 ft. factory addition with 12 x 20 ft., 13 x 40 ft. and 40 x 40 ft. ells, concrete, brick and steel, rein.-con. flooring, concrete foundation, to Langan & Shaw Constr. Co., 89 Boylston St., Boston. About $150,000. Noted Sept. 2.

★**Mass., New Bedford**—Whitman Mills Corp. let contract constructing 2 story, 60 x 140 ft. addition to waste building, brick and concrete, rein.-con. flooring, concrete foundation, on Coffin Ave., to E. H. Kelley, Box 820. About $75,000.

★**Conn., New Britain**—New Britain Lumber & Coal Co., 391 Park St., let contract building 2 story, 35 x 150 ft., brick, concrete and steel garage, rein.-con. flooring, concrete foundation, to A. Bergstrom, 47 Trinity St. About $50,000.

★**N. Y., Brooklyn**—C and K Bldg. Co., c/o E. M. Adelsohn, archt., 1778 Pitkin Ave., will build 1 story, brick and steel garage and shop, rein.-con. flooring, concrete foundation. About $60,000. Work will be done by day labor.

★**N. Y., Buffalo**—Peugeout Co. of Amer. let contract constructing 1 story, 120 x 460 ft. plant, hydraulic steel and brick, concrete foundation, to Hydraulic Steelcraft Co., Hydraulic Ave., Cleveland, O.

N. Y., Buffalo—State Hospital Comn., Capitol, Albany, received bids Sept. 29 building addition to heating plant here from Moran & Gibbs, 608 Niagara Life Bldg., $162,300; J. W. Danforth Co., 70 Ellicott St., $168,710; G. H. Drake, 218 Lexington Ave., $174,375; coal and ash handling equipment, from Equity Eng. Co., 30 Church St., New York City, $41,778; Guarantee Constr. Co., 140 Cedar St., New York City, $69,980. Noted Aug. 26.

★**N. Y., New York**—H. Birdsall, 182 West St., will alter and build additional story to existing 3 story 100 x 110 ft. garage, rein.-con. brick and steel, rein.-con. flooring, on Thompson Ave. About $60,000. Work will be done by day labor.

★**N. Y., New York**—Bway. and 126th St. Corp., 1057 Bryant Ave., will build 2 story, 100 x 150 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Bway. and 126th St. About $150,000. Work will be done by day labor.

★**N. Y., New York**—P. Doelger Realty Co., c/o Earle & Calhoun, 212, West 72d St., let contract building 4 story, 100 x 100 ft. factory (for lease), rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 56th St. and Ave. A, to Sherman Sq. Constr. Co., 176 West 72d St. About $150,000.

★**N. Y., New York**—Exide Battery, 101 West End Ave., let contract building 2 story, 115 x 125 ft. concrete and brick garage, on Spring and Clark Sts., also 2 story, 100 x 100 ft., rein.-con., on 55th and 3rd Ave., to W. Steele & Sons Co., 16th and Arch Sts., Phila.

★**N. Y., New York**—Fort Lee Ferry Garage Co., 619 West 129th St., will build 2 story, 120 x 260 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Moylan Pl. About $350,000. Work will be done by day labor.

★**N. Y., New York**—J. Ruppert, Inc., 1639 3rd Ave., let contract building 2 story, 50 x 200 ft. auto repair shop, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 243 East 90th St., to E. S. Murphy Bldg. Co., 407 East 101st St. About $50,000.

★**Pa., Phila.**—Daniels Motor Co., 3rd St., Reading, let contract building 1 and 2 story, 40 x 100 ft., 80 x 125 ft. and 80 x 485 ft. factory, office and assembling plant, slow burning construction, on Westmoreland St. and Huntingdon Park., here, to W. Steele & Sons Co., 16th and Arch Sts.

★**Pa., Phila.**—Dill & Collins, Richmond and Tioga Sts., let contract building 3 story, 28 x 58 ft. filter and pulp mill, concrete and brick, on Manayunk St., to W. Steele & Sons Co., 16th and Arch Sts.

Pa., Philadelphia—Reyburn Mfg. Co., 23d and Allegheny Sts., let contract constructing 1 story, 80 x 224 ft. manufacturing building, 4 story, 80 x 340 ft. warehouse and 1 story, 30 x 100 ft. garage and power house, rein.-con and brick, to W. Steele & Sons Co., 16th and Arch Sts.

★**Fla., Moncrief** (Jacksonville P. O.)—Federal Ice & Refrigerating Co., Chicago, let contract building 2 story, 100 x 400 ft., rein.-con. and brick plant, rein.-con. flooring, here, to Blome, Sineck Co., City Hall Sq. Bldg., Chicago. About $150,000. E. B. Dowd, Box 95, Florida representative for contractor.

★**Tenn., Memphis**—Dixie Rubber Co. let contract constructing 1 story, 75 x 290 ft. plant, hydraulic steel, concrete foundation, to Hydraulic Steelcraft Co., Hydraulic Ave., Cleveland, O.

★**O., Cleveland**—Accurate Machine Co., 13306 Coit Rd., let contract building 1 story, 60 x 180 ft., brick and steel factory, brick foundation, to Austin Co., 16112 Euclid Ave. About $75,000.

★**O., Cleveland**—Commercial Bookbinding Co., 2231 West 110th St., let contract building 2 story, 48 x 110 ft., brick and steel, factory, brick foundation, to B. Witt, 1635 Belmar Rd. About $50,000. Noted Sept. 16.

★**O., Columbus**—Amer. Rolling Mill Co., Parsons Ave. along tracks of Toledo & Ohio Central R.R., let contract building rein.-con., brick and steel extension to plant, rein.-con. flooring, concrete foundation to D. P. Robinson, 125 East 46th St., New York City. About $300,000.

★**Ind., Indianapolis**—Capitol Lumber Co., 1712 West New York St., will build 1 story 60 x 100 ft. and 20 x 150 ft. frame and concrete mill on 48th St. About $50,000. Work will be done by day labor.

★**Ind., Indianapolis**—Kingan & Co., Ltd., Maryland St., will build 6 story, 40 x 56 ft. pickling factory, rein.-con. and brick, rein.-con. flooring, on West Georgia St. About $74,000. Work will be done by day labor.

★**Ill., Chicago**—Chicago & Alton R.R., 608 South Dearborn St., let contract building rein.-con. and steel warehouse, rein.-con. flooring, concrete foundation, to D. P. Robinson, 125 East 46th St., New York City. About $1,000,000.

★**Wis., Fond du Lac**—J. B. Fellrath, 180 North Main St., will build 1 and 2 story, 70 x 120 ft. block manufacturing plant, concrete and mill construction, concrete foundation, on Brook St. Work will be done by day labor.

★**Wis., Horicon**—Van Brunt Mfg. Co. will build 1 story, 80 x 200 ft. addition to foundry and 40 x 80 ft. kiln, brick and steel, concrete foundation. Work will be done by day labor.

★**Wis., Milwaukee**—Milwaukee Boiler Mfg. Co., 220 Oregon St., let contract building 1 story, 140 x 180 ft., brick and steel boiler shop, concrete flooring and foundation, on 35th Ave., to Wisconsin Bridge & Iron Co., North Milwaukee. About $150,000.

★**Wis., West Bend**—Buemming & Guth, archts., 521 Jackson St., Milwaukee, let contract to P. Berres, West Bend, building 1 story, 100 x 300 ft., concrete and mill construction factory, rein.-con. flooring, concrete foundation, for Schmidt & Storck Wagon Co., Mill St. Noted Sept. 23.

★**Neb., Minatare**—Great Western Sugar Co., Sugar Bldg., Denver, Col., will build factory here. About $2,000,000. Work will be done by day labor. Noted Aug. 19.

★**Mo., Kansas City**—Corn Products Refining Co., 17 Battery Pl., New York City, will build rein.-con. and steel plant, rein.-con. flooring, concrete foundation. About $500,000. Work will be done by day labor.

★**Tex., El Paso**—See "Buildings."

★**Tex., Gonzales**—F. E. Shuler Grain Co. will construct 2 story grain elevator, grist mill, corn sheller and shuck baling plant, frame. About $50,000. Work will be done day labor.

★**Col., Johnstown**—Great Western Sugar Co., Sugar Bldg., Denver, Col., will build factory here. About $2,000,000. Work will be done by day labor.

★**Ont., Toronto**—Exide Battery Co., 101 West End Ave., New York City, let contract building 2 story, 80 x 200 ft., rein.-con. garage here, to W. Steele & Sons, 312 Ryrie Bldg.

Buildings

PROPOSED WORK

Me., Saco—Auditorium—Masonic Order of Saco plans to build brick and steel, on Thornton Ave. About $100,000.

Me., Saco—School—City plans to build brick and steel. About $100,000. Architect not selected.

Mass., Boston—Municipal—Pub. Bldg. Dept., City Hall Annex, plans to build brick, stone and steel on Shawmut Ave. About $400,000. Architect not selected.

Mass., Roxbury (Boston, P. O.)—Nurses Home—Children Hospital, 300 Longwood Ave., plans to build nurses' home and servants' quarters, brick and concrete. About $600,000. Architect not selected.

Mass., Somerset—School—Town plans to build 2 story, brick and steel. E. M. Corbett, 70 Bedford St., Fall River, archt.

Mass., Springfield—Church—Springfield Roman Catholic Diocese plans to build church on St. James Ave. About $150,000. T. D. Bearen, bishop. Architect not selected.

R. I., Newport—School—McKim, Mead & White, archts., 101 Park Ave., New York City, will soon award the contract building 3 story, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Purgatory Rd., for St. Georges School. About $200,000.

Buildings (Continued)

R. I., North Providence (Providence P. O.)—Convents—Franciscan Missionery, having plans prepared by T. S. McLoughlan, archt., 507 Union Trust Bldg., Providence, for brick, concrete and steel buildings on Fruit Hill Ave. About $500,000.

Conn., Hartford — Seminary — Hartford Theological Seminary, 1507 Broad St., plans to build brick and steel addition. About $150,000. Architect not selected.

Conn., New Britain — Hospital — New Britain General Hospital, 92 Grand St., plans to build hospital addition. About $150,000. Architect not selected.

N. Y., Brooklyn—Office—W. Higginson, archt. and engr. 18 East 41st St., New York City, soon lets contract for extensive alterations, brick and stone, to 43 Front St., here, for Arbuckle Bros., Jay St.

N. Y., Rochester—Theatre—Loews Enterprises, 1493 Bway., New York City, having sketches made by T. W. Lamb, archt., 644 8th Ave., New York City, for brick, steel and stone, here. About $400,000.

Pa., Uniontown—Hospital—Uniontown Hospital opens bids about Feb. 1, building 3 story, 60 x 170 ft. addition, brick and stone. About $300,000. H. Altman, Uniontown, archt.

Ala., Birmingham — Auditorium — City Comn. plans to build brick and stone, concrete foundation. About $500,000. T. W. Lamb, 644 8th Ave., New York City, archt.

Tenn., Memphis — College—Southwestern Presbyterian College, Clarksville, plans to build 1, 2 and 3 story various sized brick, stone and steel buildings here. About $5,000,000. Cram & Ferguson, 15 Beacon St., Boston, archts.

O., Cleveland—Bank and Office—Bway. Savings & Trust Co., East 55th St. and Bway., had plans prepared by Walker & Weeks, archts., 1900 Euclid Ave., for 8 story, 80 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $400,000. M. Stafford, pres.

O., Cleveland—Home—Y. M. & Y. W. H. A., c/o A. A. Woldman, atty., Amer. Trust Bldg., plan to build 2 story, brick, steel and stone, brick foundation. About $100,000. Architect not selected.

O., Cleveland—Office—A. Teller Co., Leader-News Bldg., plans to build 10 story, rein.-con., brick and steel, rein.-con. flooring, concrete and brick foundation. About $1,000,000. Architect not selected.

O., Cleveland—Theatre—P. Gusdonovic Co., Sloan Bldg., plans to build 1 story, 70 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $100,000. Architect not selected.

O., Cleveland—Theatre and Office—F. M. Drew and W. T. Campbell, owners of Star Theatre, Euclid Ave., plan to build 20 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 18th St. and Euclid Ave. About $5,000,000. Architects name withheld.

O., Clintonville—School—Bd. Educ. having plans prepared by D. Riebel & Sons, archts., New 1st. Natl. Bank Bldg., Columbus, for 2 story, 100 x 200 ft., brick and concrete, on North High St. About $265,000. E. W. MacFadden, clk. Noted Sept. 16.

O., Green Camp—School—Bd. Educ. having sketches made by O. D. Howard, archt., 8 East Broad St., Columbus, remodeling school. About $100,000. C. G. Ritzler, pres.

Ind., Marion—Bank—First Natl. Bank having preliminary plans prepared by Hoggson Bros., archts. and engrs., 485 5th Ave., New York City, for 1 story, brick and stone, brick foundation. About $300,000.

Ind., Terre Haute—Bank and Office—Citizens Trust Co., 612 Wabash Av. having preliminary drawings prepared by Hoggson Bros., archts. and engrs., 485 5th Ave., New York City, for 12 story, brick, steel and stone. About $500,000.

Mich., Detroit—Market—Detroit Market House Co., 385 Clay St., having plans prepared by A. C. Bishop & Co., archts and engrs., Guardian Bldg., Cleveland, O., for 1 story, brick and steel, brick foundation. About $100,000.

Ill., Alton—Hospital—Alton State Hospital plans to construct hospital, to include 6 ward buildings, 2 infirmaries and 1 building for tubercular patients. About $300,000. G. A. Zeller, supt. Architect not selected.

Wis., Eau Claire—Theatre—J. Walter, 605 North Barstow St., having preliminary plans prepared by C. W. and G. L. Rapp, archts., 190 North State St., Chicago, for brick and concrete, rein.-con. flooring, concrete foundation. About $200,000.

Wis., Elk River — School — Union Free High School plans to build high and vocational school, probably 4 story, brick, rein.-con., steel and stone, concrete foundation, on Main St. C. A. Adams, clk. Architect not selected.

Wis., Goodman — High School — School Dist. plans to build brick and concrete, rein.-con. flooring, concrete foundation. About $100,000. J. Gomber, clk. Architect and engineer not selected.

Wis., Neenah—High School—School Bd. plans to build junior high school, 2 story, concrete and brick, rein.-con. flooring, concrete foundation, on South Commercial St. About $200,000. L. J. Pinkerton, clk. Architect and engineer not selected.

Wis., Neillsville — School and Chapel — Reformed Church of United States plans to build 2-3 story, 60 x 250 ft., brick, rein.-con. and stone, brick foundation, on Main St. About $100,000. O. Grether, local pastor. Architect not selected.

Wis., Racine—Church and School—Jewish Congregation, c/o D. Greenberg, 615 Wisconsin St., plans to build 2 story, brick, rein.-con. flooring, concrete foundation. About $100,000.

Ia., Anamosa—Courthouse—Jones Co. having plans prepared by W. E. Hulse & Co., archts., Des Moines, for 2 story, 80 x 100 ft., rein.-con., concrete, brick and steel, rein.-con. flooring, concrete foundation. About $375,000.

Ia., Cedar Rapids—High School—Bd. Educ. soon receives bids building Junior High School, 3 story 124 x 204 ft., rein.-con. and brick. About $400,000. Rugh & Zalesky, 811 Securities Bldg., archts. K. Mategil, secy.

Ia., Chariton — School — Bd. Educ. plans to build school. About $185,000. Architect and engineer not selected.

Ia., Dunkerton—High School—Bd. Educ. having plans prepared by H. B. Burr, archt., Commercial Bank Bldg., Waterloo, for 2 story, 80 x 130 ft., brick, rein.-con. and steel, rein.-con flooring, concrete foundation. About $100,000.

Ia., Sioux City—Office—Natl. Fidelity Life Insurance Co., 216 Trimble Blk., having plans prepared by W. S. Steele, archt., Union Bank Bldg., for 3 story (ultimately 10 story), 50 x 95 ft., rein.-con., concrete, brick and steel, rein.-con. flooring, concrete foundation. About $250,000.

Ia., Sioux City—Temple—York Rite Masonic Assn. having plans prepared by Beuttler & Arnold, archts., 235 Grain Exch. Bldg., for 3 story, 150 x 150 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $400,000.

Ia., Wapello — Court House — Louisa Co. plans to build court house. About $300,000. Architect and engineer not selected.

Ia., Waterloo—School—Bd. Educ. plans to build school. About $115,000. Architect not selected.

Minn., Minneapolis — Hotel — Donald Hotel, 1501 Vine Pl., having plans prepared by A. Rose, archt., Builders Exch., for 3 story, 66 x 120 ft., rein.-con. and brick addition. About $100,000.

Kan., Iola—Hall—Allen Co. plans to build memorial hall. About $125,000. Architect not selected.

Kan., Kansas City—Hotel—Grund Hotel, 6th and Ann Sts., having plans prepared by Hart, Price & Barnes, archts., Reliance Bldg., Kansas City, Mo., for remodeling and building 3 story, 150 x 156 ft. concrete and brick addition. About $600,000.

S. D., Egan—School—City voted $100,000 bonds to build 2 story, high and grade school. Architect not selected.

Mo., Kansas City—Church—Epworth Methodist Episcopal Congregation having plans prepared by Brostrom & Drotts, archts., Reliance Bldg., for 3 story, 54 x 72 ft., on 49th and Genesee Sts.

Mo., Kansas City—Hospital—J. G. Sheldon, 1111 Rialto Bldg., having plans prepared for 50 room hospital on 25th and Locust Sts. Architect's name withheld.

Mo., St. Louis—Bank and Office—J. C. Reed, pres. Southern Hardware & Supply Co., 17th and Olive Sts., is interested in syndicate which plans to construct brick bank and office building on 18th and Olive Sts. About $200,000. Architect not selected.

Tex., Austin—Lodge—I. O. O. F. having plans prepared by J. F. Walker, archt., 801 Patterson St., for 2 story, 38 x 120 ft., rein.-con., brick, steel and stone, rock foundation, on 9th and Brazos Sts. About $100,000.

Tex., Austin — School — University of Texas, Bd. Regents, having plans prepared by G. A. Endress, archt., Littlefield Bldg., for school of chemistry, 3 story, 70 x [illegible] ft., brick, rein.-con. and steel, rein.-con. flooring, on campus. Cost to exceed $3[illegible]000.

Okla., Ardmore—Church—First Methodist Episcopal Congregational Church had plans prepared by Hawk & Parr, archts., 501 Security Bldg., Oklahoma, for 2 story, 8[illegible] x 165 ft., brick, stone and concrete, rein.-con. flooring, brick foundation, on Main St. and Bway. About $235,000.

Okla., Okmulgee—Library—City having plans prepared by Smith, Rea, Lovitt & Senter, archts., 303 Parkinson Bldg. for 1 story, 45 x 100 ft., brick, rein.-con. and steel, rein.-con. flooring, on 8th and Okmulgee Sts. About $100,000.

Okla., Tulsa—Temple—Tulsa Masonic Bldg. Assn., 205 Kennedy Bldg., having plans prepared by R. G. Schmidt & Co., archts., 104 South Michigan Ave., Chicago, Ill., for 3 story, 100 x 140 ft., brick, rein.-con. and steel, rein.-con. flooring, on 7th and Boston Sts. About $500,000.

Col., Denver—High School—City and Denver Co. having plans prepared and received bids latter part of October, building North Side Jr. High School, 2 story, 125 x 350 ft., rein.-con., brick and steel, brick foundation, on West 40th and King Sts. About $500,000. H. G. Edwards, 1172 Stout St., archt.

Col., Denver—Temple—Rocky Mt. Consistory 2, 16th and Grant Sts., had plans prepared for 6 story, 116 x 171 ft., rein.-con. and steel, rein.-con. flooring. Cost between $650,000 and $800,000. Gardner & Parry, 209 Guardian Trust Bldg., engr.

N. S., Pictou—Bank—Royal Bank of Canada, St. James St., Montreal, Que., soon receives bids building 2 story, 50 x 75 ft brick, steel and granite, concrete foundation, here.

Que., Montreal — Hospital — St. Justine Hospital, St. Denis St., soon receives bids building 4 story, brick, steel and stone addition. About $200,000.

Que., Montreal—Hotel—United Hotel Co. of America having plans prepared by Ross & McDonald, archts., 1 Belmont St., for 10 story, 252 x 330 ft. concrete, brick and steel, on Peel, Burnside and Metcalfe Sts. About $1,600,000.

Que., Montreal—Market—Administration Comn. plans to enlarge Bonsecours Market. About $400,000. R. Bauset, city clk.

B. C., Prince Rupert — Court House — Provincial Government, Victoria, having plans prepared by H. Whitaker, archt., Pub. Wks. Dept., Victoria, and receives bids about Oct. 15 building 4 story, rein.-con., brick, tile and stone, rein.-con. flooring, concrete foundation here. About $400,000. A. E. Foreman, Pub. Wks. Dept., Victoria, engr.

B. C., Victoria—Theatre—British Columbia Paramount Theatres, Ltd., 963 Granville St., Vancouver, receives bids about Oct. 20 building 2 story, 60 x 143 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation. About $300,000. J. M. Jeffrey, 348 Confederation Life Bldg., Toronto, Ont., archt.

BIDS DESIRED

R. I., Providence—School—Until Oct. 11, by Pub. Bldg. Dept., constructing 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Kenyon and Arthur Aves. About $700,000.

Conn., New Haven—Association—Knights of Columbus, 956 Chapel St., receiving bids building 4 story, 100 x 140 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Church and Wall Sts. About $250,000. W. J. Gugglor, Liberty Bldg., archt. Noted Sept. 23.

N. Y., New York—School—Until Oct. 18, by C. B. J. Snyder, supt. School Bldgs., Municipal Bldg., constructing P. S. 60, on Stebbins Ave. near East 163rd St., Bronx Boro.

N. J., Tenafly—School—Until Oct. 27, by Bd. Educ., building school. N. M. F. Dennis, dist. clk.; advertised in this issue.

Pa., Chambersburg—School—Until Oct. 21, by School Bd., building 1 story, 10 room, brick, concrete foundation. H. G. Kilmer, 402 Trust Bldg., archt.; advertised in this issue.

Pa., Scranton—School—Until Oct. 25, by School Bd., building 2 story, 72 x 100 ft., on Wilbur St. About $125,000. L. M. Davis, 616 Spruce St., archt.

Md., Baltimore—Hospital—Until Oct. 11, by J. E. Sperry, archt., 409 Calvert Bldg., constructing 7 story, 70 x 185 ft. addition to Woman's Hospital, brick, stone and steel, concrete foundation, on Wolfe and Monument Sts., for Johns Hopkins Hospital. Noted Aug. 26.

Buildings (Continued)

Md., Baltimore—Office—Until Oct. 21, by Wyatt & Nolting, archts., 1012 Keyser Bldg., constructing 3 story (ultimately 12 story) steel, brick and stone, concrete foundation, on Calvert and Mercer Sts., for United States Fidelity & Guaranty Co., Calvert and Redwood Sts. About $300,000. H. F. Doeleman, 507 North Charles St., engr. Noted June 24.

Md., Baltimore—Synagogue—Until Oct. 11, by J. E. Sperry, archt., 409 Calvert Bldg., constructing 1 and 2 story, 85 x 115 ft., rein.-con., brick and steel, concrete foundation, on Eutaw Pl. and Chauncey Ave., for Chizuk Amuno Congregation. About $400,000. W. Levy, 2352 Eutaw Pl., chn. bldg. com.

Ga., Atlanta—Bank—Until Oct. 16, by R. S. Pringle, archt. and engr., Empire Bldg., constructing brick, steel and stone, for Fulton Natl. Bank, Empire Bldg. About $300,000.

O., Cleveland—Bank and Office—Citizens Savings & Trust Co., c/o A. Smith, East 9th St. and Euclid Ave., receiving preliminary bids building 10 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 101st St. and Euclid Ave. About $1,000,000. Walker & Weeks, 1900 Euclid Ave., archts. Noted July 15.

O., Cleveland Heights (Warrensville P. O.)—Schools—Until Oct. 20, by Bd. Educ., Lee Rd., building 4 story, 35 x 90 ft. addition, on Coventry Rd., cost $150,000, also 2 story, 8 room addition, to have two 35 x 70 ft. wings, on Fairfax Rd., $200,000, rein.-con. brick and steel, rein.-con. flooring, brick and concrete foundations. E. K. Bryan, clk. F. C. Warner, Hippodrome Annex Bldg., archt. Noted Sept. 30.

O., Elyria—School—Until Oct. 18, by Bd. Educ. building 2 story, 190 x 201 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Gulf Rd. and Ohio St. About $300,000. S. S. Rockwood, clk. R. S. Silsby, Bank Bldg., Lorain, archt.

O., Fairport—Commercial and Theatre—Until Oct. 10 by R. H. Hinsdale, archt., Bangor Bldg., Cleveland, building 2 story, 44 x 112 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, for E. E. Lawrence. About $100,000. Noted Aug. 26.

Ia., Ft. Dodge—High School—Until Oct. 27, by Bd. Educ., building 3 story, 190 x 260 ft. rein.-con., brick and stone. About $650,000. W. B. Ittner, Bd. Educ. Bldg., St. Louis, Mo., and Damon & O'Meara, 14 East Mason Bldg., Ft. Dodge, archts.

Minn., Minneapolis—Music—Until Oct. 14, by State Bd. Control, Capitol, St. Paul, building 3 story, 95 x 160 ft. rein.-con., brick and stone, on State University Campus, here. About $500,000. C. H. Johnston, 715 Capitol Bldg., St. Paul, archt. C. L. Pillsbury Co., 805 Metropolitan Bank Bldg., engrs.

Kan., Topeka—Hospital and Detention—T. W. Williamson & Co., archts., 418 Central Natl. Bank Bldg., has been retained as local superintendent and is receiving bids for constructing hospital and detention building, to include isolation ward, garage and power house, rein.-con. and brick, concrete foundation, for Security Benefit Assn., Topeka. About $300,000. Schmidt, Garden & Martin, 104 South Michigan Ave., Chicago, archts. Noted Sept. 9.

PRICES AND CONTRACTS AWARDED

(★Indicates award or contract)

★**Mass., Clinton**—Housing—Lancaster Mills, 1 Green St., let contract building 2 story, houses for workmen, to General Bldg. Co., 522 Harrison Ave., Boston. About $100,000. Noted Aug. 5.

★**Mass., Fall River**—Hospital—Truesdale Hospital Corp., 151 Rock St., let contract building 3 story, 40 x 100 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, to J. W. Bishop Co., 109 Foster St., Worcester. About $150,000. Noted July 8.

★**Mass., Palmer** — Housing — Wickwire-Spencer Steel Corp., 69 Hammond St., Worcester, will build 2 story houses for workmen, brick and timber, concrete foundations here. About $100,000. Work will be done by day labor.

★**Conn., Hartford**—Bank and Office—Hartford-Connecticut Trust Co., 779 Main St., let contract building 15 and 17 story, 90 x 110 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Central Row and Main St., to Marc Eidlitz & Sons Co. 30 East 42nd St., New York City. About $2,000,000.

★**N. Y., Brooklyn**—Hospital—Dept. Pub. Welfare let contract building hospital on New Cumberland St. here to 174th St. Constr. Co., 35 Nassau St., New York City. About $663,000. Noted Sept. 23.

★**N. Y., New York**—Church—Church of Christ Scientist, c/o B. E. Muller, archt., 477 5th Ave., will build 75 x 95 ft., brick and stone, on Anthony Ave. About $300,000. Work will be done by day labor.

★**N. Y., New York**—Hotel—Plaza Hotel, 58th St. and 5th Ave., let contract altering and building addition, brick, steel and stone, to G. A. Fuller Co., 175 5th Ave. About $250,000.

★**N. Y., New York**—Office—Union Indemnity Co., New Orleans, La., let contract building 8 story brick, steel and stone, at 96 Maiden Lane, here, to H. C. Vought, Grand Central Terminal Bldg. About $350,000.

★**N. Y., New York**—Office and Showroom—A. Z. A. Realty Co., 31 East 27th St., will build 12 story, 25 x 45 ft., brick, steel and stone, at 415 Lexington Ave. About $600,000. Work will be done by day labor.

★**N. J., New Brunswick**—Theatre—W. Reade, 112 West 34th St., New York City, let contract building 1 story, 100 x 235 ft. brick and steel, brick foundation on Livingston Ave. to C. Brown, Campbell Ave., Long Branch. About $500,000. Noted Sept. 23.

★**Pa., Phila.**—Office—See "Industrial Works."

★**Md., Leonardtown**—Bank—First Natl. Bank of St. Marys Co. let contract building 2 story, 35 x 42 ft., rein.-con., brick and steel, concrete foundation, to Frainie Bros. & Haigley, 20 Clay St., Baltimore. About $100,000. Noted June 9.

★**O., Cleveland** — School — St. Georges Church, c/o J. Wikittle, East 21st St. and Oregon Ave., let contract building 3 story, 84 x 135 ft., brick, steel and stone, brick foundation, on East 67th St. and Superior Ave., to W. J. Pierik, 1366 East 95th St. About $100,000. Noted Feb. 12.

★**Ill., Olney** — Sanitarium — O'ney Sanitarium Co. will build 2 story, 55 x 86 ft., rein.-con., brick and steel. About $100,000. Work will be done by day labor.

★**Wis., West Allis** (Milwaukee P. O.)—Grade School—Bd. Educ. let contract building 2 story, brick, rein.-con. and steel, concrete foundation, on Cupple site, to R. L. Reisinger & Co., 425 East Water St., Milwaukee, $118,552. Noted Sept. 9.

★**Minn., Hibbing** — Housing — Interstate Iron Mining Co., Virginia, let contract building fifteen 2 story, rein.-con., brick and steel houses, also 1 story, 40 x 78 ft. and 24 x 30 ft., rein.-con. and brick power house, to Pfeffer Constr. Co., 412 Torrey Bldg., Duluth. About $140,000; cost plus percentage basis.

★**Kan., Kansas City**—Station—Kansas City Terminal Ry., Union Sta. Bldg., Kansas City, Mo., will build 1 story, 34 x 141 ft. passenger station and 23 x 34 ft. head house, rein.-con. and brick, on 7th St. along Union Pacific R.R. tracks, here. About $150,000. Former bids rejected. Work will be done by day labor.

★**N. D., Marmarth**—High School—Bd. Educ. let contract building 2 story, 61 x 91 ft. rein.-con., brick and tile, to Colwell-Long Co., 354 Plymouth Bldg., Minneapolis, Minn. About $100,000. Noted Sept. 2.

★**Tex., El Paso**—Hospital Group—Home Mission Bd., Southern Baptist Conference, Atlanta, Ga., let contract constructing hospital group, to include 2 ward buildings, power house, superintendent's home, medical director's home, connecting underground passages, septic tank and sewage disposal plant, to C. W. Hedrick Constr. Co., Southwestern Life Bldg., Dallas. About $300,000.

★**Col., Cheyenne Wells**—High School—Bd. Educ. let contract building 2 story, 125 x 168 ft., concrete, brick and steel, concrete foundation, to Advance Constr. Co., Denver. About $100,000. Noted Sept. 16.

★**Idaho, Lewiston**—Hotel—Hotel Service Co. let contract building 5 story, 150 x 180 ft., rein.-con., to Hurley-Mason Co., Sherwood Bldg., Spokane, Wash. About $450,000.

★**Ont., Ottawa**—Theatre—Famous Players Film Corn., Temple Bldg., Toronto, let contract building concrete, brick and steel, on Queen St. here to Atlas Constr. Co., 37 Belmont St., Montreal, Que. About $525,000.

Federal Government Work

PROPOSED WORK

Mass., South Boston (Boston P. O.)—Steam Locomotive Crane—Spec. 4263—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids installing 50 gross ton steam operated locomotive jib crane on tracks at Naval Dry Dock here. C. W. Parks, ch.

N. Y., Ft. Niagara—Filtration Plant—Const. Div., War Dept., Wash., D. C., plans to build, here. About $25,000.

Ga., Columbus—Refrigeration Plant—Constr. Div., War Dept., Wash., D. C., plans to build, here. Address, Major Moeller, care of Constr. Div. War Trade Bd.

Ala., Florence—Tie Line Constr. Div., War Dept., Wash., D. C., plans to build at Nitrate Plant 2, Muscle Shoals, here.

Kan., Ft. Leavenworth — Transport School, etc.—Constr. Div., War Dept., Wash., D. C., plans to build water transport school, cost $400,000; officers quarters, $600,000; water system, $60,000.

BIDS DESIRED

Mass., Chelsea—Macadam Roads, etc.—Spec. 4284—Bureau Yards & Docks, Navy Dept., Wash., D. C., receiving bids building macadam roads, repairing macadam and concrete roads, concrete retaining wall, concrete sidewalks, granite block pavement, drainage system, stone and brick masonry wall, ornamental iron fence and gates, steam heating system for existing and future guard houses, etc., at Naval Hospital, here; $10 deposit required for plans and spec.

R. I., Newport—Piers and Dredging—Spec. 4090—Until Oct. 20, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building piers and dredging, here; $10 deposit required for plans and spec.

R. I., Providence—Dredging—Until Oct. 25, by U. S. Engineer Office, dredging in Stamford and Norwalk Harbor, Connecticut; advertised in this issue.

R. I., Providence—Remodeling Custom House and Post Office—Until Oct. 27, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

W. Va., Wheeling—Lighting, Wiring, etc.—Until Oct. 20, by Treasury Dept., Wash. D. C., installing lighting, wiring, conduits, etc., in Court House, Custom House and Post Office here. J. A. Wetmore, superv archt.

W. Va., Wheeling—Water Piping—Until Oct. 19, by Treasury Department, Wash., D. C., installing new water pipe in Court House, Custom House and Post Office here. J. A. Wetmore, superv. archt.

Mich., Lansing—Post Office—Until Oct. 20, by Treasury Dept., Wash., D. C., remodeling Post Office, here. J. A. Wetmore, superv. archt.

Ill., Rockford — Mailing Vestibule, etc. — Until Oct. 21, by Treasury Department, Wash., D. C., for new mailing vestibule, extension of driveway and interior changes in Post Office here. J. A. Wetmore, superv archt.

Mo., St. Louis—Earthwork—Until Nov. 5, by Secretary, Mississippi River Comn. 1311 International Life Bldg., building 1,100,000 cu.yd. earthwork in Sny Island Levee D. D.; advertised in this issue. Noted July 15.

Cal., San Diego—Fire Alarm System—Spec. 4288—Until Oct. 20, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here. Noted Sept. 2.

Cal., San Diego—Marine Railway—Spec. 4297—Until Oct. 27, by Bureau Yards & Docks, navy Dept., Wash., D. C., and at office of Pub. Wks. officer, Timken Bldg., San Diego, removing partially constructed railway, etc. C. W. Parks, ch.; advertised in this issue.

H. T., Honolulu—Elevator Plant—Until Oct. 27, by Treasury Department, Wash., D. C., building in Post Office, Custom House and Court House here. J. A. Wetmore superv. archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award or contract)

D. C., Wash.—Storehouse—Spec. 4155—Bureau Yards & Docks, Navy Dept., received bids Sept. 29 building storehouse for combustibles, at Navy Yard here, (1) work complete, from C. H. Tompkins, 1883 3d St., N.W., (1) $37,000 (260 days), (2) $70, (3) add $2, deduct $0.85, (4) $5,300; W. E. Mooney, 505 Evans Bldg., (1) $37,999 (240 days), (2) add $66, deduct $25.50, (3) add $1.98, deduct $0.85, (4) $4,990; Boyle Robertson Constr. Co., 601 Evans Bldg., (1) $39,162 (260 days), (2) add $66, deduct $30, (3) add $2, deduct $0.80, (4) add $5,319. Noted Sept. 16.

Va., Hampton Roads—Drainage System, etc.—Spec. 4221—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Sept. 29, building concrete roads and drainage system at Naval Operating Base, here, (1) work complete, from B. Pizzimento, Hyattsville, Md., (1) $133,626, (300 days); Atlantic Bitulithic Co., Virginia R.R. Power Bldg., Richmond, (1) $141,171, (150 days).

Federal Government Work—(Continued)

(2) $28,463; Hyde & Baxter, 1311 G St., N. W., Wash., D. C., (1) $157,900, (240 days), (2) $11,000. Noted Sept. 16.

★**Ga., Columbus**—Buildings—Major Moeller, War Trade Bldg., Constr. Div., War Dept., Wash., D. C., let contract constructing 179 buildings at Camp Bennings here, to Selden-Breck Constr. Co., Fullerton Bldg., St. Louis, Mo., $823,441. Noted Sept. 30.

★**Fla., Jacksonville**—Jetty—U. S. Engineer offices, let contract building jetty, at entrance to St. Johns River, to Seaboard Dredging Co., Durkee Bldg., $94,950.

★**La., New Orleans**—Jetty—U. S. Engineer, Custom House, let contract extending jetties at mouth of Southwest Pass of Mississippi River, to L. F. Alexander, Audubon Bldg., $700,000. Noted Aug. 19.

★**La., New Orleans**—Refrigerating Machine—Treasury Dept., Wash., D. C., let contract installing, in Marine Hospital here, to W. Leibe Refrigerator Mfg. Co., 740 Poydras St., $1,991. Noted Sept. 2.

★**Ky., Louisville**—Structural Steel Castings, etc.—U. S. Engineer let contract furnishing and delivering structural steel castings, etc., for Lock 44 (Lot A, structural steel), to Nashville Bridge Co., foot of Shelby Ave., Nashville, Tenn., $16,938; (Lot C, steel castings), to Duquesne Steel Fdry. Co., Farmers Bank Bldg., Pittsburgh, Pa., $1,183; (Lots D, E and F, iron casting valves, etc.), to J. and J. B. Milholland Co., 714 5th Ave., Pittsburgh, Pa., $29,914. Noted Aug. 26.

★**Ill., Freeport**—Remodeling Post Office—Treasury Dept., Wash., D. C., let contract remodeling, here, to J. M. and H. H. Hineline, 155 Van Buren St., $4,737. Noted Sept. 2.

Ill., Great Lakes—Harbor Development—Spec. 4136—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Sept. 25, for developing harbor, at Naval Training School, here, to include breakwaters, pier quay walls, dredging and filling, (1) work complete, from Great Lakes Dredge & Dock Co., 104 South Michigan Ave., Chicago, (1) $1,179,068 (500 days), (2) $345,798 (200 days), (3) $95,484, (300 days), (4) $149,006, (5) $73,968, (150 days), (6) $0.59 per cu.yd., (200 days), (7) $0.53 per cu.yd., (600 days), (11) $1,207,488, (550 days), (12) $1,079,915, (600 days) (13a) $335, (13)b $315, (13c) $290, (14a) $160, (14b) $150, (16a) $340, (16b) $331, (16c) $317, (17a) $240, (17b) $225, (17c) $211, (18) $0.60 per cu.yd., (19) $0.40 per lin.ft.; E. E. Gillen Co., 120 Wisconsin St., Milwaukee, Wis., (1) $1,295,000, (550 days), (2) $334,000, (200 days), (3) $135,000 (300 days, (4) $155,000 (150 days), (5) $64,000, (150 days, (6) $509, (200 days), (12) $1,195,000 (13a) $444, (13b) $406, (13c) $360, (14a) $242, (14b) $242, (17a) $295, (17b) $277, (17c) $238, (18) $0.66, (19) $0.75. $50,000 addition for building railroad. Noted Aug. 19.

★**Ill., Savannah**—Nitrate Plant—Constr. Div., War Dept., Wash., D. C., let contract building nitrate storage plant and extensions to railroad, to H. W. Horst Co., Horst Bldg., Rock Island, $318,584 and $276,000 respectively; buildings and utilities, to E. L. Scheidenhelm Co., 1909 Harris Bldg., Chicago, $911,000 for upperfield and $1,694,500 for lower field; wire fence around entire project, to F. J. McCaughey, 189 West Madison St., Chicago, $47,500.

Mo., Kansas City—Steam Service Connection—Treasury Dept., Wash., D. C., received bids Sept. 27 for outside steam service connection at Post Office and Court House here from MacMahon Plumbing Co., 1329 Oak St., $10,478 (50 days); U. S. Eng. Co., 914 Campbell St., $14,000.

★**Utah, Ogden**—Buildings, etc.—Constructing Quartermaster, 317 Colonel Hudson Bldg., let contract for magazine buildings and utilities, to W. M. Sutherland Bldg. Co., Syndicate Trust Bldg., St. Louis, Mo., $1,287,443. Noted Aug. 19.

★**Wash., Keyport**—Double Radio Quarters—Spec. 4191—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to Martin & Wills, 625 Seaboard Bldg., Seattle, $8,613, (90 days). Noted Sept. 16.

★**Cal., Mare Island**—Concrete Paving—Spec. 4296—Bureau Yards & Docks, Navy Dept., Wash, D. C. let contract concrete paving Railroad Ave. between 12th and 14th Sts., etc., to Clinton Constr. Co., 140 Townsend St., San Francisco, $19,990, (90 days). Noted Sept. 16.

Miscellaneous

PROPOSED WORK

Dam—Quincy (Boston P. O.), Mass.—Commonwealth of Massachusetts, Metropolitan Park Dept., 18 Tremont St., Boston, plans to build rein.-con. dam across Blacks Creek, here.

Park Improvements—New Haven, Conn.—City plans to issue $100,000 bonds to improve parks. F. L. Ford, city engr.

Gas Mains, Pipe, etc.—New Orleans, La.—New Orleans Gas Light Co., Baronne and Common Sts., plans to purchase new meters, cost between $40,000 and $65,000; lay 20,000 to 25,000 ft. 6 in. gas mains, cost $100,000; 18,000 ft. 12 in. pipe to reinforce small laterals in upper section of city.

Pavilion and Band Stand — Bemidji, Minn.—City having plans prepared for 50 x 150 ft. stucco bathing pavilion, concrete foundation, with 20 x 20 ft. band stand on top, in Diamond Point Park. About $25,000.

Coke Ovens—Milwaukee, Wis.—Milwaukee Coke & Gas Co., foot Greenfield Ave., having plans prepared by Kopper Co., archts., Union Arcade, Pittsburg, building 150 brick and steel coke ovens.

Incinerator—Wichita Falls, Tex.—City election Oct. 12, to vote on $125,000 bonds to build cinineator plant. J. Montgomery, city engr.

Parks and Cemetery—Wichita Falls, Tex.—City election Oct. 12, to vote on $25,000 bonds to build additions to parks and cemetery. J. Montgomery, city engr.

Hydro-Electric Developments—Winnipeg, Man.—Provincial Government plans to expend $1,000,000 for hydro-electric developmnt.

BIDS DESIRED

Baseball Field, etc.—Boston, Mass.—Until Oct. 15, by Park & Recreation Dept., 33 Beacon St., grading baseball field on Common and resurfacing walks over Common to field. About $35,000.

Electrical Equipment, etc.—New York, N. Y.—Until Oct. 18, by C. B. J. Snyder, supt. School Bldgs., Municipal Bldg., installing electric equipment in P. S. 38, on St. Anns Ave., Rae and Carr Sts. and Hagney Pl., Bronx Boro.; installing heating and ventilating, and temperature apparatus, electric passenger elevator and altering Bryant High School, on Wilbur Ave. between Academy and Radde Sts., Long Island City.

Ferryboat—New York, N. Y.—Until Oct. 11, by G. A. Whalen, comr. Plant & Structures, building steel screw ferryboat.

Tractors—New York, N. Y.—Until Oct. 22, by Bd. Purchase, Room 526, Municipal Bldg., furnishing and delivering 50 gasoline motor driven tracklaying tractors to Dept. Street Cleaning.

Tractors—New York, N. Y.—Until Oct. 22, by Bd. Purchase, Municipal Bldg., furnishing and delivering 150 tractors. Former bids rejected. Noted Sept. 16.

Terminal — Rouses Point, N. Y. — Until Oct. 29, by E. S. Walsh, supt. Pub. Wks., Albany, completing terminal here. Terminal Contr. 26-A; advertised in this issue. Notd Sept. 16.

Testing Machine—Dover, Del.—Until Oct. 27, by State Highway Dept., furnishing 1 testing machine; advertised in this issue.

Freight Terminal—Baltimore, Md.—Until Oct. 9, by O. G. Simonson, archt., Maryland Casualty Tower, building 1 story, 40 x 114 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Eutaw and Pratt Sts., for Washington, Baltimore & Annapolis R.R., Liberty and Fayette Sts. About $25,000.

Derrick—Toronto, Ont.—L. S. Lovitz, 369 Sorauven Ave., receiving bids for 2 ton stiff leg derrick, 40 ft. boom.

Pier—Rondeau, Ont.—Until Oct. 12, by Dept. Pub. Wks., Ottawa, reconstructing portion of superstructure of western entrance pier, 228 ft. long, concrete. About $25,000. E. Lafleur, c/o Dept. Pub. Wks., Ottawa, engr.

Concrete Mixers, etc.—Vancouver, B.C.—Northern Constr. Co., Carrall St., receiving bids on concrete mixers and general equipment to be used in building concrete pier and transit sheds. A. McLean, purch. agt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Freight Shed and Wharf—Portland, Me.**—Grand Trunk R.R., India St., will build 1 and 2 story, 125 x 400 ft., steel and timber freight shed and wharf, at Portland Harbor. Work will be done by day labor.

★**Wharf Repairs—Boston, Mass.**—Boston Elevated Ry. Co., 108 Massachusetts Ave., let contract repairing wharf at Lincoln Power Station Plant, timber and concrete, to Aberthaw Constr. Co., 27 School St. Cost to exceed $25,000.

★**Overhead Trolley System, etc.—North Adams, Mass.**—Boston & Maine R.R., North Sta., Boston, let contract building overhead trolley system in electric zone and resurfacing with concrete roof of Hoosac tunnel, 4¾ mi. long, to F. T. & Co., Inc., 499 Main St., Springfield.

★**Athletic Field—Winchendon, Mass.**—D. Whitney & Son, Inc. will build athletic field to include baseball diamond, grandstand and bleachers. About $25,000. Work will be done by day labor.

Asphalt Plant — New York, N. Y.—Bruckner, pres. Bronx Boro., received bids Sept. 29 for (a) constructing and completing buildings of asphalt plant, (b) plumbing work for same, (c) building steel stiff leg derrick, (d) bulkhead, (e) erecting and completing plant, from M. DelBalso, 1134 Bryant Ave., (a) $54,570; Post & McCord, 101 Park Ave., (a) $73,375; Robbins & Ripley, 50 Church St., (a) $82,180, (d) $49,465; A. F. Dietneli, (b) $3,621; O'Rourke Crane Co., (c) $12,900; Terry Mfg. Co., (c) $13,995; Clyde Scales Co., (c) $17,350; Riverside Contg. Co., 164 Montague St., Brooklyn, (d) $28,716; Lustig & Weil, 103 Park Ave., (d) $46,699; Warren Bros., 50 Church St., (e) $25,895; T. D. Klemmer, (e) $44,200. Noted Sept. 23.

★**Motor Driven Trucks—New York, N. Y.**—Bd. Purchase let contract furnishing and delivering 100 gasoline motor driven trucks to International Motor Co., 252 West 64th St., $366,766. Noted Sept. 16.

★**Foundation—Ironton, O.**—Bd. Educ. let contract building foundation for 2 story school to Taylor & Lynn, State Security Bank Bldg., 5th and Main Sts., Zanesville, $28,842.

★**Transmission Line—Fairmont, Minn.**—Martin Co. Elecric Co., Ceylon, let contract for materials for building 28 mi. transmission line from here through Welcome and Ceylon to Dunnell, to St. Paul Electric Co., 145 East 5th St., St. Paul. About $30,000.

★**Paving Materials — St. Paul, Minn.**—City received bids furnishing materials for paving Block 3, Warrendale addition, as follows: 228 bbl. portland cement, from St. Paul Builders Materials Co., 606 Ryan Bldg., $4.20 per bbl., 182 cu.yd. crushed rock for concrete base, St. Paul Crushed Stone Co., Stewart and Victoria Sts. $2.60, 23 tons limestone dust, Minnesota Crushed Stone Co., 1500 Johnson St. N.E., Minneapolis, $5.75, 54 tons binder stone, Minnesota Crushed Stone Co., 1500 Johnson St. N.E., Minneapolis, and St. Paul Crushed Stone Co., Stewart and Victoria Sts., $2.75; 27 tons traprock, W. T. Lemon Co. 1204 Pioneer Bldg., $2.60 f.o.b.; for Mounds Blvd., 1,204 bbl. portland cement, from St. Paul Builders Materials Co., 606 Ryan Bldg., $4.20, 488 cu.yd. crushed rock for concrete base, Stiefel Materials Co., 501 Concord St., $2.80, and W. T. Lemon Co. 1204 Pioneer Bldg., $2.40 f.o.b., 365 cu.yd. screened sand, Stiefel Materials Co., $1.70; Block 5, Summit Park Addition, 232 bbl. portland cement from St. Paul Builders Materials Co., 606 Ryan Bldg., $4.20, 186 cu.yd. crushed rock, Stiefel Materials Co., 501 Concord St., $2.70, and St. Paul Crushed Stone Co., Stewart and Victoria Sts., $2.60, 112 cu.yd. concrete sand and 75 cu.yd. screened sand, Stiefel Materials Co., 501 Concord St., $1.55, 15,960 lb. asphalt filler, Minnesota Road Equipment Co., 708 Plymouth Bldg., Minneapolis, $48 per ton, 1,330 sq.yd. re-pressed brick blocks, Streator Clay Mfg. Co., 713 Guardian Life Bldg., $2.22 vertical fiber laid 4 in. deep and $1.86 vertical fiber laid 3 in. deep.

★**Bins and Storage Sheds—Oconomowoc, Wis.**—Oconomowoc Fuel Co. let contract for material and equipment for building steel and concrete coal storage sheds and bins to Northern Conveyor & Mfg. Co., 3027 Walnut St., Milwaukee, about $25,000. Work will be done by day labor.

★**Steel, Iron, etc.—Sheboygan, Wis.**—Phoenix Chair Co., South 12th and Virginia Sts., let contract furnishing all steel, ornamental iron, structural steel, etc. for 4 story, 200 x 400 ft. factory and dry kilns to J. T. Ryerson & Son, 731 Wells Bldg., Milwaukee. Noted Aug. 26 under "Industrial Works."

★**Dock—Superior, Wis.**—Great Northern R.R., 175 East 4th St., St. Paul, Minn., let general contract wrecking and rebuilding outer portion of No. 3 iron ore dock and building approach to No. 1 iron ore dock at Allouez Bay, here, to Peppard & Fulton, 217 Bd. of Trade Bldg. About $800,000. Dock 1 involves 1,500,000 ft. timber and 30,000 lin.ft. piling; Dock 3, 7,500,000 ft. timber, 70,000 lin.ft. piling and 1,245 tons structural steel.

★**Pier and Transit Sheds—Vancouver, B. C.**—Vancouver Harbor Comrs., 712 Pender St., W., let contract building rein.-con. pier and transit sheds, to Northern Constr. Co., Ltd., Carrall St. About $4,500,000. Noted July 1.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng News-Record
Oct. 18	Nokomis, Ill.	Sept. 30
Oct. 18	Milwaukee, Wis.	Oct. 14
Oct. 21	Harrisburg, Pa.	Oct. 14
Oct. 25	Ventnor City, N. J. Adv. Oct. 7 and 14	Oct. 7
Oct. 25	Garfield Heights (Cleveland P. O.), O.	Oct. 14
Oct. 25	Terrell, Tex.	Oct. 14
Oct. 28	Newark, N. J. Adv. Oct. 7 and 14	Oct. 7

SEWERS

Oct. 18	Milford, Mich.	Oct. 14
Oct. 19	Wichita, Kan.	Sept. 30
Oct. 19	Ada, Okla.	Oct. 7
Oct. 19	Jersey City, N. J. Adv. Oct. 7 and 14	Oct. 7
Oct. 20	Middletown, N. Y.	Oct. 7
Oct. 20	Long Island City, N. Y.	Oct 14
Oct. 25	Garfield Heights (Cleveland P. O.), O.	Oct. 14
Oct. 29	Detroit, Mich. Adv. Oct. 14.	Oct. 14
Oct. 30	Yorkville, O.	Sept. 23

BRIDGES

Oct. 19	Alabama	Sept. 23
Oct. 21	Chicago, Ill.	Sept. 30
Oct. 22	Detroit, Mich.	Sept. 23
Oct. 25	Missouri	Oct. 7
Oct. 26	Chatsworth, Ga.	Oct. 14

STREETS AND ROADS

Oct. 15	Billings, Mont.	Oct. 14
Oct. 15	Connecticut	Oct. 14
Oct. 18	Freehold, N. J. Adv. Sept. 30 to Oct. 14	Oct. 7
Oct 18	New York, N. Y.	Oct. 14
Oct. 18	Hamilton, Ga.	Oct. 14
Oct. 19	Shakopee, Minn.	Sept. 23
Oct. 19	Granite Falls, Minn.	Oct. 7
Oct. 19	Michigan	Oct. 14
Oct. 19	Phila., Pa.	Oct. 14
Oct. 20	Little Rock, Ark.	Oct. 14
Oct. 20	St. George, S. I., N. Y.	Oct. 14
Oct. 20	Sinton, Tex.	Oct. 14
Oct. 20	Baltimore, Md.	Oct. 14
Oct 21	Missouri	Oct. 14
Oct. 22	Missouri	Sept. 30
Oct. 22	Jacksonville, Fla.	Sept. 30
Oct. 22	Detroit, Mich.	Oct. 7
Oct. 22	Fulton, Mo.	Oct. 14
Oct. 25	Missouri	Oct. 7
Oct. 25	Missouri	Oct. 14
Oct. 25	Garfield Heights (Cleveland P. O.), O.	Oct. 14
Oct. 25	Houston, Tex.	Oct. 14
Oct. 25	Michigan	Oct. 14
Oct. 26	Ft. Wayne, Ind.	Oct. 7
Oct. 26	Chatsworth, Ga.	Oct. 14
Oct. 27	Indiana	Oct. 7
Oct. 27	Delaware Adv. Oct. 7 and 14	Oct. 7
Oct. 28	Siloam Springs, Ark.	Sept. 30
Oct. 30	Indiana	Oct. 7
Nov. 6	Junction City, Kan.	Oct. 14
Nov. 16	Lyon, Kan.	Oct. 14

EXCAVATION AND DREDGING

Oct. 20	Hayti, S. D.	Oct. 14
Oct. 25	Manawa, Wis.	Oct. 14
Oct. 26	Rochelle, Ill.	Oct. 14
Oct. 26	Marengo, Ia.	Oct. 14
Oct. 26	Geneseo, Ill. Adv. Oct. 14.	Oct. 14
Nov. 1	Tampa, Fla. Adv. Sept. 30 to Oct. 14	Oct. 7

INDUSTRIAL WORKS

Oct. 18	Jackson, Wis.	Oct. 7
Oct. 19	Hartford, Conn.	Oct. 7
Oct. 21	New York, N. Y.	Oct. 14
Nov. 1	Webb City, Mo.	Sept. 16

RAILWAYS

Oct. 18	Michigan	Oct. 14

BUILDINGS

Oct. 18	Elyria, O.	Oct. 7
Oct. 18	New York, N. Y.	Oct. 7
Oct. 18	Hackensack, Minn.	Oct. 14
Oct. 20	Cleveland Height (Warrensville P. O.), O.	Oct. 7
Oct. 21	Chambersburg, Pa. Adv. Sept. 23 to Oct. 14	Oct. 7
Oct. 21	Baltimore, Md.	Oct. 7
Oct. 22	Detroit, Mich.	Oct. 14
Oct. 25	Scranton, Pa.	Oct. 7
Oct. 25	Oil City, Pa.	Oct. 14
Oct. 27	Tenafly, N. J.	Oct. 7
Oct. 27	Ft. Dodge, Pa.	Oct. 7

FEDERAL GOVERNMENT WORK

Oct. 15	Scotch Marine Boilers, etc.—Jacksonville, Fla. Adv. Sept. 23 to Oct. 14	Sept. 23
Oct. 18	Dry Cleaning Building — Ft. Meyer, Va.	Oct. 14
Oct. 19	Water Piping—Wheeling, W. Va.	Oct. 7
Oct. 20	Concrete Pavement, etc.—Spec. 4257—Ft. Lyon, Col.	Sept. 30
Oct. 20	Mine Storage Buildings—Spec. 4253—New Orleans, La.	Sept. 30
Oct. 20	Lighting, Wiring, etc. — Wheeling, W. Va.	Oct. 7
Oct. 20	Remodeling Post Office — Lansing, Mich.	Oct. 7
Oct. 20	Fire Alarm System—Spec. 4288—San Diego, Cal.	Oct. 7
Oct. 20	Piers and Dredging—Spec. 4090—Newport, R. I.	Oct. 7
Oct. 20	Turret Foundations—Spec. 4295—Washington, D. C.	Oct. 14
Oct. 21	Mailing Vestibule, etc. — Rockford, Ill.	Oct. 7
Oct. 21	Registry Room — Buffalo, N. Y.	Oct. 14
Oct. 22	Dredging—Norfolk, Va.	Sept. 23
Oct. 23	Foundations and Coping for Reflecting Pool — Wash., D. C. Adv. Sept. 30 to Oct. 14	Sept. 30
Oct. 25	Hospital — West Point, N. Y. Adv. Sept. 30 to Oct. 14	Sept. 30
Oct. 25	Dredging—Providence, R. I. Adv. Sept. 30 to Oct. 14	Oct. 7
Oct. 26	Remodeling and Repairing Customhouse and Post Office—Buffalo, N. Y.	Sept. 30
Oct. 27	Elevator Plant—Honolulu, H. I.	Oct. 7
Oct. 27	Remodeling Custom House and Post Office — Providence, R. I.	Oct. 7
Oct. 27	Marine Railway—Spec. 4297—San Diego, Cal. Adv. Oct. 7 and 14	Oct. 7
Oct. 27	Quay Wall—Spec. 4306—Norfolk, Va. Adv. Oct. 7 and 14.	Oct. 14
Oct. 30	Hoisting Plant—Wahington, D. C.	Sept. 16
Oct. 30	Cable Hangers—Washington, D. C.	Oct. 14
Nov. 5	Earthwork — St. Louis, Mo. Adv. Oct. 7 and 14	Oct. 7
Nov. 5	Steel Parges—Vicksburg, Miss. Adv. Oct. 14.	Oct. 14
Nov. 10	Pumping Facilities—Wash. D. C. Adv. Oct. 14.	Oct. 14
Nov. 17	Marine Railway—Spec. 4254—Pear Harbor, H. T. Adv. Oct. 14	Oct. 14
Nov. 17	Ordnance Buildings—Spec. 4168—Pearl Harbor, H. T. Adv. Oct. 14.	Oct. 14

MISCELLANEOUS

Oct. 18	Tractors — New York, N. Y.	Oct. 7
Oct. 18	Locks—Chicago, Ill.	Sept. 16
Oct. 18	Heating and Ventilating Apparatus, etc. — Long Island City, N. Y.	Oct. 14
Oct. 18	White Way System—Cloquet, Minn.	Oct. 14
Oct. 20	Macadam and Gravel — Clayton, Mo.	Oct. 14
Oct. 21	Foundation — Ft. Wayne, Ind.	Oct. 7
Oct. 21	Paving Plant—London, Ont.	Oct. 14
Oct. 21	Pavilions—Randalls Island (New York P. O.), N. Y.	Oct. 14
Oct. 21	Foundation — Milwaukee, Wis.	Oct. 14
Oct. 22	Tractors—New York, N. Y.	Oct. 7
Oct. 22	Ferryboat—New York, N. Y.	Oct. 7
Oct. 27	Testing Machine — Dover, Del. Adv. Oct. 7 and 14	Oct. 7
Oct. 29	Terminal — Rouses Point, N. Y. Adv. Oct. 7 and 14	Oct. 7
Oct. 29	Foundations — Rochester, N. Y. Adv. Oct. 7 and 14.	Oct. 14

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mich., Croswell—Village plans to build 8 in. well in octagonal pit as substructure for pumping station, involving 1,800 ft. 6-8 in. c.i. or wood stave pipe. About $20,000. Hoad & Decker, Eng. Bldg., Ann Arbor, engrs.

Neb., Sidney—City voted $27,000 bonds to extend waterworks system.

S. D., Scotland—City voted $45,000 bonds to extend waterworks system. Noted Sept. 23.

Waterworks (Continued)

Mo., Salisbury—A. L. Sutter, city clk., sold $20,000 bonds to improve waterworks system.

Wash., Bucoda—City plans election to vote on $47,000 bonds to build waterworks system, sewerage system and cement sidewalks.

Wash., Walla Walla—City Council soon receives bids building new reservoir and extending pipe line. About $545,000. E. C. Hussey, Seattle, engr.

Que., Three Rivers—City plans election to vote on $325,000 bonds to build filtration plant and aqueduct. Z. Lambert, city engr.

N. Y., Marcy—See "Sewers."

BIDS DESIRED

Pa., Harrisburg—Until Oct. 21, by S. F. Heisler, city comr., Commonwealth Trust Co., 228 Market St., laying 1,500 ft. 6 in. water pipe lines in 3d and 4th Sts. from Katherine to Lewis Sts. About $15,000.

O., Garfield Heights (Cleveland P. O.)—Until Oct. 25, by village, paving Christine Ave., involving 25,350 sq.ft. of brick, concrete, bitulithic or sheet asphalt. About $30,000. H. Bohning, clk. R. Hecker, Leader-News Bldg., Cleveland, engr.

Wis., Milwaukee—Until Oct. 18, by Commissioner Pub. Wks., furnishing 2 circular sluice gates, each 9 ft. diameter, clear opening, complete with all appurtenances for Linwood Av. intake tunnel.

Tex., Terrell—Until Oct. 25, by Chairman City Comn. improving waterworks system, to include two 5 in. centrifugal pumps, electric motors, laying c.i. water mains, etc.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Va., Norfolk**—City let contract for 80,000 cu.yd. excav. for proposed waterworks system, to S. R. Curtis, Lee Hall. Noted July 22.

★**S. D., Sioux Falls**—City let contract building motor house and well, to Faubust Bros., Sioux Falls, $16,600. Noted Sept. 9.

★**Tex., Wichita Falls**—City will improve waterworks system. About $200,000. Work will be done by day labor under supervision J. A. Donald, acting city engr.

Wash., Seattle—Bd. Pub Wks. received bids Sept. 25 building reservoir at Volunteer Park, involving 107,000 cu.yd earth excav., 15,000 cu.yd. embankment, 14 acres clearing, grubbing, etc., from Olympic Constr. Co., Green Bldg., $207,383; McLellan & McQuaid, Seattle, $209,885; H. Pederson, Alaska Bldg., $219,835.

★**Wash., Seattle**—Bd. Pub. Wks. let contract building watermains, sewers, etc., in Northlake Ave., et al., clay, to F. N. Badolato, Builders Exch., $44,206. Noted Sept. 30.

★**N. B., St. John**—City let contract extending waterworks system, involving 36 in. water main to Spruce Lake, to Canada Lock Joint Co., Prince William St. About $357,000.

★**Cuba, Cienfuegos**—City let contract building waterworks system to Porrance & Poitar, Havana. About $10,000,000.

Sewers

PROPOSED WORK

La., Shreveport—City voted $100,000 bonds to build storm sewers in various streets.

O., Idlewood (Cleveland P. O.)—Village plans to build sewers and water mains in Belvoir Blvd. and Friedel Rd. About $50,000. W. A. Horky, clk. C. Root, Society for Savings Bldg., Cleveland, engr.

O., Warren—City election Nov. 2, to vote on $150,000 bonds city's 25 per cent share of cost to build storm and sanitary sewers in Red Run Dist., involving 8,607 ft. 72-120 in. rein.-con. pipe. Auxiliary sewer involving 2,050 ft. 24 in. tile pipe, will be laid in addition to the above. A. Potter, 50 Church St., New York City, engr.

Wis., Augusta—City rejected bids received Oct. 4, building 30,000 ft. sanitary sewers in various streets. Work will be readvertised. H. Olk, Antigo, engr. Noted Sept. 23.

Tex., Houston—City plans election to vote on $100,000 bonds to build sewers in various streets.

Ont., London—City receives bids about Nov. 2, building 8-30 in. vitr. tile sewerage system in western section of city. About $350,000. H. A. Brazier, city engr.

Ont., London—City receives bids about Nov. 15 building 8-39 in. vitr. tile sewers, in Wellington Rd. About $80,000. H. A. Brazier, city engr.

BIDS DESIRED

N. Y., Long Island City—Until Oct. 20, by M. E. Connolly, pres. Queens Boro., building sewers and appurtenances in Pierce Ave. from 4th to 5th Aves, Beekman St. from State St. to Mitchell Ave., South St. from tracks of Long Island R.R. to Rockaway Turnpike, Rockaway Turnpike from South St. to Lincon Ave.; regulating and grading sidewalk space and laying sidewalks on southside of Maspeth Ave. from Clermont Ave. to Grand St. and from Van Cott Ave. to Broad St.

O., Garfield Heights (Cleveland P. O.)—Until Oct. 25, by village, building sewers in Plymouth, Greenview, Russell, Edgepark, Sladden, South Highland, Garfield Parkway, Park Heights, Park View and Robinson Aves., East 95th, East 96th, East 97th and East 104th Sts. involving 18,602 10-20 in. vitr. pipe, 66 manholes. H Bohning, clk. R. Hecker, Leader-News Bldg., Cleveland, engr.

Mich., Detroit—Until Oct. 29, by J. A. Martin, Comr. Pub. Wks., furnishing labor and material building Sects. 2 and 3 of Bates St. Sewer and Sect. 2 of Gratiot Ave. Sewer; advertised in this issue. Noted April 15.

Mich., Milford—Until Oct. 18, by R. S. Pittenger, village clk., furnishing labor and material for building and finishing screens and temporary wood septic tanks together with sewers, etc., involving 2,500 cu.yd. earth fill, 3,665 ft. 8-15 in. vitr. pipe, etc. Alternative bid on 15 in. line, may be carried on piers, in which case it will be 175 ft. shorter. C. W. Hubbell, 2348 Penobscot Bldg., Detroit, engr. Noted June 24.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Oct. 4 building sewer in (a) Larting St., (b) Fulton St., from J. F. Clancy, (a) $33,955, (b) $5,186; Kennedy & Smith, 94 Main St., Flushing, (a) $34,838, (b) $5,578; Green Contg. Co., 734 Vernon Ave., Astoria, (a) $36,424; J. H. Johnson, Inc., (b) $5,008. Noted Sept. 30.

N. Y., Marcy—State Hospital Comn., Capitol, Albany, received bids Oct. 6 building sewerage and water supply systems at Utica State Hospital here involving (a) all work other than excav. and backfill, (b) 110 cu.yd. rock excav. and backfiell 20 ft. and over below present grade, (c) 3,360 cu.yd., 12-20 ft. below present grade, (d), 14,380 cu.yd., 6-12 ft. below, (e) 3,000 cu. yd. 0-6 ft. below, (f) 12 cu.yd. earth excav. and backfill, 20 ft. and over below present grade, (g) 389 cu.yd., 12-20 ft. below, (h) 2,536 cu.yd., 6-12 ft. below, (i) 29,628 cu. yd., 0-6 ft. below, from Scott Bros., Arlington Blk., Rome, (a) $258,000, (b) $10, (c) $3.50, (d) $3.50, (e) $3.50, (f) $10, (g) $3.50, (h) $3.50, (i) $3.50; P. Keeler Bldg. Co., Orange St., Albany, (a) $259,500, (b) $7.50, (c) $7.50, (d) $7.50, (e) $7.50, (f) $5, (g) $2.50, (h) $2.50, (i) $2.50; M. Kantorwitz, 20½ Market St., Albany, (e) $338,000 (b) $9.50, (c) $8.40, (d) $7.40, (e) $6.90, (f) $4, (g) $3.50, (h) $2.40, (i) $2.20. Noted Sept. 16 under "Miscellaneous."

★**Pa., Harrisburg**—W. H. Lynch, state highway comr., let contracts building sewers in Elder and Derry Sts., involving 2,588 ft. 12-18 in. terra cotta pipe, 124 ft. 12-18 in. Y branches, etc., also Spring Creek Sewer along Cameron Parkway, 3,200 ft. 2 ft. 8 in. x 2 ft. 10 in. rein.-con., 300 ft. 18-24 in. c.i. and 2,810 ft. 18 in. terra cotta pipe, etc., to W. H Opperman, 131 Paxton St, $13,990 and $69,897 respectively. Noted Sept. 9.

★**O., Cleveland**—City let contract building sewer in Luke Rd. extension, involving 1,450 ft. 5 ft. C brick pipe, to Amato Constr. Co., 345 The Arcade, $34,393. Noted Sept. 30.

★**O., Cleveland**—S. H. Kleinman Realty Co., Natl. City Bldg., let contract building sewers and water mains in Yorkshire Heights allotment to A. Hosine, 635 Bradley Court, $33,503. Noted Oct. 7.

★**Mich., Detroit**—Water Bd. will lay 13,319 ft. 6-12 in. c.i. pipe in Camden, Northfield, Traverse, Sanger, McDonald, Mack, Tuxedo, Grainer, Davison, Hasse, Kentucky, Westphalia, Bismark, Harper, Manistique, Phillips and Wildemere Aves. Work will be done by day labor.

★**Mich., Detroit**—City let contract furnishing labor and material (except for manhole rings and covers) for building and finishing complete Lateral Sewer 3,343, between Charleston, John R, Hildale and Robinwood Sts., 3,348 Woodward, Charleston and Goldengate Sts. and Seven Mile Rd., to E. L. McIntyre, Grand River Ave., $16,160 and $39,805 respectively; 3,345, Charleston, John R and Robinwood Sts. and Seven Mile Rd., to Liberty Constr. Co., 917 Chamber of Commerce Bldg., $16,5[illegible] 3,349, John R, Nevada and Savannah Sts. and along tracks of Grand Trunk Ry., 3,350, Woodward, John R, Nevada and Savannah Sts., 3,351, Woodward, John R, Nevada and Montana Sts., 3,352, Woodward, John R, Montana and Worcester Sts., to Cole Cement Constr. Co., 806 Hammond Bldg., $8,450, $14,709, $9,849 and $9,214 respectively.

Wis., Wauwatosa—Bd. Administration Milwaukee Co. (Milwaukee) received bids Oct. 6, rebuilding sewage disposal plant at county institutional buildings, here, from Lippmann Stone Co., 449 Clinton St., Milwaukee, $27,905. Noted Sept. 30.

★**Ia., Davenport**—City let contract building sanitary sewers in Elm St., Westholme 2d, 3d, 4th and Westholme additions to Independent Constr. Co., 304 Lane Bldg. About $53,000. Noted April 1.

★**Wash., Seattle**—See "Waterworks."

Bridges

PROPOSED WORK

N. H., Franklin—City plans to build memorial bridge, rein.-con., to replace Daniell Bridge. About $60,000. Engineer not selected.

Fla., Pensacola—See "Streets and Roads."

O., Shadesville—Comrs. Franklin Co. (Columbus) plan election in November to vote on $385,000 bonds to build 900 ft. concrete bridge, 20 ft. wide, to have eight 80-110 ft. spans, over Scioto River, here. Braun, Flemning, Knollman & Prior, 233 South High St., Columbus, archts.

Wis., Milwaukee—City having plans prepared for 290 ft. steel bascule, double leaf bridge, with 125 ft. channel clearance, 80 ft. wide, to have concrete abutments and approaches, on State St. About $500,000. D. McKeith, city engr.

Tex., Houston—City plans election to vote on $425,000 bonds to build bridges.

Que., L'Ange Gardien—Dept. Pub. Rds., Quebec, having plans prepared for steel bridge from here to Island of Orleans. About $750,000.

Man., Winnipeg—City retained J. F. Green, consult. engr., c/o W. P. Brereton, city engr., to design rein.-con. bridge over Assiniboine River on Maryland St. Noted Jan. 8.

BIDS DESIRED

Ga., Chatsworth—Until Oct. 26, by Bd. Supervs. Murray Co. buildng bridge over Sumach Creek, also earth and gravel roadway, 9 mi. north of here. Work involves 3,995 cu.yd. borrow excav., 515 cu.yd. gravel surfacing, 207 cu.yd. Class "A" and 167 cu.yd. Class "B" concrete, 58,000 lb. reinforcing steel, 480 cu.yd. dry and 75 cu.yd. wet excav. J. M. Campbell, chn.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Missouri**—State Highway Dept., St. Joseph, let contract to Buchanan Co., St. Joseph, building rein.-con. skew slab superstructure and 4 rein.-con. pile bents, over Contrary Creek, on Sta. 64 plus 32, $9,491; Rushville Bridge, over Rushville Drainage Ditch, on Sta. 649 plus 51, $9,887; rein.-con. deck girder superstructure and 1 temporary bridge ,over drainage ditch, on Sta. 229 plus 00, $4,788; rein.-con. skew slab superstructure and 1 concrete pier, over drainage ditch, on Sta. 515 plus 65, $4,869; rein.-con. skew lab superstructure and 2 concrete piers, over drainage ditch, on Sta. 357 plus 90, $6,381. Above projects in Buchanan Co., Federal Aid Project 49. Noted Sept. 30.

Tex., Jasper—Jasper Co. received bids Aug. 24, building bridge over Angelina River, (1) alternate "A," includes one 150 ft. and two 75 ft. steel spans with trestle approach of untreated timber, involving 813 cu.yd. Class "B" concrete, 23,221 ft. bridge flooring, 141,338 ft. trestle approach, 2,543 cu.yd. dry and 450 cu.yd. wet excav., 184,000 lb. structural and 16,205 lb. reinforcing steel, etc., (2) alternate "B," 200 ft. steel span with trestle approach, 420 cu.yd. Class "B" concrete, 14,000 ft. steel span

Bridges (Continued)

flooring, 20,000 ft. creosoted lumber for trestle approach, 200 cu.yd. dry and 225 cu.yd. wet excav., 145,000 lb. structural and 9,000 lb. reinforcing steel, etc., from Midland Bridge Co., Ship Channel, Fidelity St., Houston, (1) $102,594, (2) $74,606; Austin Bros. Bridge Co., 1815 Coombs St., Dallas, (1) $102,798, (2) $70,832; Brown-Abbott Co., Loraine, (2) $65,787. Noted Aug. 19.

Tex., Jourdanton — Atascosa Co. received bids Sept. 3, building 40 ft. concrete girder bridge and 214 ft. I-beam and pile trestle bridge, on Highway 9, at and near Pleasanton, 16 ft. wide, from W. T. Montgomery, Alamo Bank Bldg., San Antonio, $30,612. Work involves 246.6 cu.yd. rein.-con., 31.58 cu.yd. Class "B" concrete, 202 cu.yd. wet and 148 cu.yd. dry excav., 12,000 ft. white oak flooring, 18,000 ft. pressure creosoted pine lumber, 80,675 lb. structural and 32,508 lb. reinforcing steel. Noted Aug. 12, under "Streets and Roads."

Tex., Kaufman — Kaufman Co. received bids Sept. 28, for buliding (1) rein.-con. and steel span bridge, also concrete culverts and timber pile trestles on Highway 40, through Precinct 1, involving 3,426 lin.ft. wooden piling, 503 cu.yd. strurctural excav., 17,801 lb. structural steel rail, 30,200 lb. structural steel trusses, 313.5 cu.yd. Cass "A" and 50.3 cu.yd. Class "B" concrete 24,042 lb. reinforcing steel, etc., (2) rein.-con. and steel bridges and rein.-con. culverts and timber tile trestles on Highway 40, through Precinct 7, involving 879 cu.yd. dry and 105 cu.yd. wet excav., 6,424 lin.ft. wooden piling, 50,953 lb. reinforcing steel, 178,000 ft. creosoted timber, 23,500 lb. structural steel trusses and 31,815 lb. structural steel railings, from Womack Constr. Co., Houston, (1) $21,210, (2) $34,766; Smith Bros., and Healey Constr. Co., c/o Smith Bros., Crockett, (1) $24,163, (2) $39,541; McCall-Moore Eng. Co., San Antonio, (2) $33,660. Noted Sept. 9 under 'Streets and Roads."

Streets and Roads

PROPOSED WORK

Mass., Fitchburg—Pub. Wks. Dept. plans to relocate and pave Oak Hill Rd. About $75,000. D. A. Hartwell, city engr.

Conn., Thompsonville—Boro. plans to improve various roads, waterbound macadam. About $30,000. Engineer not selected.

Pa., Hollidaysburg—Boro. Council plans to pave 3,000 ft. Garber and Juniata Sts., 22 ft. wide, concrete or brick. About $30,000. J. L. Henry, Walsh Bldg., engr.

W. Va., Weston—Lewis Co. plans election to vote on $350,000 bonds to grade, drain and build bridges, etc., on 11 mi. roads in Hackers Creek Dist., concrete, brick, asphaltum, stone, block or macadam. W. K. Spaur, Charleston, co. engr.

Alabama—State Highway Comn., Montgomery, having plans prepared for grading, draining and surfacing 18.8 mi. state road from Guntersville to Boaz, 24 ft. wide, Marshall Co., bituminous macadam. About $600,000. W. S. Keller, state highway engr.

La., Shreveport—City voted $100000 bonds to pave Texas Ave., Mansfield and Harts Island Rds. from end of present pavement on said streets in city limits, also $60,000 bonds to resurface various streets.

Tenn., Elizabeth—Carter Co. voted $220,000 bonds to build various state and federal aid roads. About $350,000 now available.

Tenn., Pulaski—Giles Co. voted $350,000 bonds to build state and federal aid roads.

Ohio—State Highway Comn., Columbus, cancelled contracts Oct. 8, building roads in following counties:

Huron Co., Sect. "P" Oberlin-Norwalk Rd., 4.667 mi., grading and paving with monolithic brick.

Seneca Co., Sect. "D-1" Columbus-Sandusky Rd., 2.038 mi., grading, constructing bridges and culverts and paving with bituminous macadam.

Sect. "F-1" Bucyrus-Tiffin Rd., 0.884 mi., grading, constructing bridges and culverts and paving with bituminous macadam.

Sect. "G" Tiffin-New Haven Rd., 2.007 mi., grading, constructing bridges and culverts and paving with bituminous macadam. Noted Sept. 23.

Ohio—State Highway Comn., Columbus, received no bids Oct. 8, building roads in following counties:

Lawrence Co., Sect. "K" Ohio River Rd., 0.97 mi., grading, constructing bridges and culverts and paving with bituminous concrete or rein.-con.

Sect. "O" Pomeroy-Athens Rd., 3.303 mi., grading roadway and constructing bridges and culverts

Sect. "Village of Stryker" Bryan-Wauseon Rd., 1.393 mi., grading, constructing bridges and culverts and paving with bituminous concrete.

Sect. "K" Edon-Cooney Rd., 3.592 mi., grading, constructing bridges and culverts and paving with bituminous macadam. Noted Sept. 23.

Michigan—State Highway Dept., Lansing, rejected bids Oct. 1 grading, draining and surfacing 1.12 mi. State Trunk Line Rd. 19-1, Yale Co., and 1.004 mi. State Trunk Line Rd. 21-13, Sect. B, Capac Village, both 20 ft. wide. Work will be readvertised. Noted Sept. 23.

Wis., Maritowoc — City plans to pave 30,000 sq.yd. various streets, concrete. About $120,000. F. L. Alter, city engr.

Wis., Milwaukee—Bd. Pub. Wks. rejected bids received Sept. 30, paving Elliott Circle, Kneeland Ave., Chambers, Franklin, Pease, 21st and West 24th Sts., asphalt, 29th St., bituminous concrete. Work will be readvertised.

Minn., Hibbing—City soon receives bids paving 10 blocks Howard St., creosoted wood block, bitulithic or concrete.

Kan., Columbus—Cherokee Co. had plans prepared furnishing labor and material for building 3.07 mi. roads, also several bridges, involving 13,226 sq.yd. concrete and 38,553 cu.yd. earth excav. C. M. Cooper, Columbus, engr.

Neb., Pawnee City — City receives bids about Oct. 15 paving 25 blocks, 30-40 ft. wide, brick. About $200,000. E. T. Archer & Co., 609 New England Bldg., Kansas City, Mo., engrs. Noted Sept. 16.

N. D., Minot—Comrs. Ward Co. plan to grade, gravel surface and build small structures on 23 mi. Federal Aid Project 84, 24 ft. wide. About $250,000. H. C. Frahm, Minot, engr.

Missouri—State Highway Dept., New London, received no bids Sept. 24, building 5.32 mi. Sect. A, Red Ball Route, 24 ft. wide, Federal Aid Project 66, cost $47,885; 4.11 mi. Sect. A, London-Perry Rd., 24 ft. wide, Federal Aid Project 64, $20,662, rein.-con. slab superstructure on Sta. 79 plus 06, $2,268; 5.57 mi. Sect. A, London-Perry Rd., 24 ft. wide, Federal Aid Project 67, $26,239, rein.-con. slab superstructure, on Sta. 97 plus 92, $2,178; 3.35 mi. Sect. A, London-Perry Rd., 24 ft. wide, Federal Aid Project 63, $15,644; 4.58 mi. Sect. A, London-Perry Rd., 24 ft. wide, Federal Aid Project 65, Ralls Co., $21,424. Noted Sept. 16.

Mo., Kirkwood—City plans to pave 1½ mi. Kirkwood Rd. from Peek Ave. to St. Louis & San Francisco R.R. tracks, involving 71,280 sq.yd. bitulithic macadam. About $25,000. W. Elbring, Clayton, engr.

Tex., Comanche—Comanche Co. voted $200,000 bonds to build gravel surfaced road and concrete bridges and culverts on Highway 22 from here to Gorman through De Leon, also Highway 18, from Dublin to De Leon, 16 ft. wide. L. D. Parks, De Leon, engr.

Tex., Del Rio—Val Verde Co. having plans prepared grading, surfacing and draining 11.59 mi. Highway from here to Kinney Co. line, 16 ft. wide, involving 17 acres clearing and grubbing, 40,980 lin ft. grader work, 42,800 cu.yd. earth excav., 9,220 lb. reinforcing steel, 200 cu.yd. Class "A" and 100 cu.yd Class "B" concrete, etc. About $85,000. G. M. Jowers, co. engr.

Tex., Houston—City plans election to vote on $200,000 bonds to pave various streets.

Col., Golden—City election in April to vote on $65,000 or $75,000 bonds to pave 1½ mi. Golden Highway to foot of Lookout Mt., concrete. Engineer not selected.

Cal., San Diego—Common Council passed resolution to improve Union, Albatross and Juniper Sts., involving 207,163 sq.ft. ¾ in. asphaltum macadam wearing surface on 4 in. concrete base, 299 ft. concrete curbing, 295 sq.ft. concrete sidewalks, 12 sewer laterals, 1,252 ft. 4 in. c.i. water mains, etc. F. A. Rhodes, city engr.

Cal., San Diego—Common Council having plans and specifications made for improving 8,841 ft. Torrey Rd. and Roosevelt Memorial Drive, involving 176,820 sq.ft. 5 in. concrete paving. About $53,846. F. A. Rhodes, city engr.

Ontario—Dept. Pub. Wks., Toronto, receives bids in November macadamizing 7 mi. road from Amherstburg to Obigway, 20-24 ft. wide, Essex Co. About $100,000.

BIDS DESIRED

Connecticut—Until Oct. 15, by C. J. Bennett, comr., State Highway Dept., Hartford, paving 2,950 ft. Mill Plain Rd., gravel, Danbury.

N. Y., New York—Until Oct. 18, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with concrete pavement on existing concrete foundation, roadway of 2nd Ave. from 4th to 5th Sts. (west side); 9 in. concrete pavement roadway of 2nd Ave. from 4th to 5th Sts. (east side); sheet asphalt on concrete foundation, roadway of Lexington Ave. from 116th to 125th Sts.; wood block on concrete foundation roadway of 125th St. from 1st to 2nd Aves., and from 2nd to 3rd Aves.; granite block pavement on concrete foundation, roadway of Washington St. from Murray to Morton Sts., roadway of East 24th St. from 1st Ave. to Ave. A, roadway of 125th St. from 1st to 2nd Aves., and from 2nd to 3rd Aves., roadway of Lexington Ave. from 130th to 131st Sts.

N. Y., S. I., St. George—Until Oct. 20, by C. D. Van Name, pres. Richmond Boro., repaving with concrete pavement roadway of Richmond Turnpike from Louis St. to Clove Lake, together with all incidental work.

Pa., Phila.—Until Oct. 19, by Dept Pub. Wks., grading, paving and repaving various streets, asphalt, wood and redressed granite block. F. H. Craven, dir.

Md., Baltimore—Until Oct. 20, by Bd Awards, c/o City Register, paving Harlem Ave. from Longwood St. to point 219 ft. west; Longwood St. from Edmondson to Harlem Ave. west to north building line of Harlem Ave. east; 350 ft. Linnard St. from Edmondson to Harlem Aves.; 400 ft. Norman Ave. from Edmondson Ave. to Franklin St., all sheet asphalt, also grading and paving alleys listed in Private Alleys Contr. 68, cement concrete. H. G. Perring, ch. engr.

Ga., Chatsworth—Until Oct. 26, by Bd. Supervs. Murray Co. building 6.6 mi. Dalton-Chatsworth Rd., Federal Aid Project 178. Work involves 3.8 acres clearing and grubbing, 38,000 cu.yd. common, 1,400 cu. yd. borrow and 500 cu.yd. rock excav., 190 cu.yd. Class "A," 230 cu.yd. Class "B" and 20 cu.yd. Class "C" concrete, 24,000 lb. reinforcing steel, 1,420 lin.ft. 15-24 in. culvert pipe 97 cu.yd. cement concrete headwalls, 18,000 cu.yd. top soil surfacing. J. M. Campbell, chn.

Ga., Hamilton—Until Oct. 18, by Bd. Comrs. Rds. and Revenues, Harris Co., grading and top soiling 8½ mi. Federal Aid Project 17 between here and Columbus, involving 9.55 acres clearing and grubbing, 52,294 cu.yd. excav., 78.25 cu.yd. Class "B" concrete headwalls, 1,155 lin.ft. 15-24 in terra cotta pipe, 34,674 cu.yd. top soil, etc. Bids received on D. S. i.c. and corrugated metal pipe.

O., Garfield Heights (Cleveland P. O.)—Until Oct. 25, by village, laying 19,110 ft. 4-8 in. c.i. water mains in McCracken Rd., Garfield Blvd., Park Heights and South Highland Aves. H. Bohning, clk. R. Hecker, Leader-News Bldg., Cleveland, engr.

Michigan—Until Oct. 19, by State Highway Dept., at dist. office, Port Huron, grading and draining 5.322 mi. State Trunk Line Rds. 19-4 and 21-13, Sects. A, St. Clair Co., involving 18,990 cu.yd. earth excav., 402 lin.ft. pipe culverts, 229 cu.yd. concrete in culverts, etc.

Michigan—Until Oct. 25, by State Highway Dept., at dist. office, Port Huron, fine grading and surfacing 16.595 mi. Federal Aid Rd. 38, 18 ft. wide, St. Clair Co., involving 174,696 sq.yd. concrete or bituminous concrete, 876 stations fine grading, etc.

Kan., Junction City—Until Nov. 6, by Geary Co., resurfacing .716 mi. road with bituminous filled brick on old concrete base using bituminous filled sand cushion, also grading, building bridges and culverts and paving with concrete 1.057 mi. East 6th and Humboldt Dry Creek Rds. About $50,000 and $60,000 respectively. G. A. Russell, Junction City, engr.

Kan., Lyons—Until Nov. 16, by Rice Co., building 5.022 mi. Old Santa Fe Trail, Federal Aid Project 26 B, including grading, bridges, culverts and concrete or brick pavement. About $260,000. S. Ainsworth, Lyons, engr.

Streets and Roads (Continued)

Mont., Billings—Until Oct. 15, by Comrs. Yellowstone Co., building 3 mi. Federal Aid Project 134 between Mason and Laurel, 24 ft. wide, involving 10,858 cu.yd. excav., 5,752 cu.yd. surfacing, 1,477 sta. yd. overhaul, 12,983 lb. reinforcing steel, 54 cu.yd. Class "A" and 87 cu.yd. Class "B" concrete, etc. J. N. Edy, Helena, state highway engr.

Missouri—Until Oct. 21, by State Highway Dept., Cassville, building 4.88 mi. Sect. A., Monett-Neosha Rd. (Monett Special Rd. Dist.) Federal Aid Project 121, Barry Co., involving 31,052 cu.yd. earth excav., 2,318 cu.yd. borrow, 45,916 sq.yd. gravel pavement, 437.9 cu.yd. Class "B" and 10.2 cu.yd. Class "C" concrete masonry, 31,168 lb. reinforcement for concrete masonry, etc. About $54,856.

Missouri—Until Oct. 25, by State Highway Dept., Caruthersville, building 5.9 mi. Kings Highway (Hayti Special Rd. Dist.), Federal Aid Project 35, Pemiscot Co., involving 36,564 cu.yd. earth excav., 1,577 cu.yd. borrow, 22,014 cu.yd. per 100 ft. overhaul, 55,668 sq.yd. specification A gravel pavement, 45.5 cu.yd. Class "B" and 29.2 cu.yd. Class "C" concrete masonry, 3,160 lb. reinforcement for concrete masonry, 367 lin. ft. 12-24 in. vitr. clay pipe culvert, etc., cost $78,238; I-beam superstructure over drainage ditch, on Sta. 255 plus 58, 38 ft. span, 18 ft. roadway, 132.2 cu.yd. Class "C" concrete, 500 lb. reinforcing and 17,200 lb. fabricated structural steel, 4,100 ft. oak lumber, etc., $6,729; I-beam superstructure over drainage ditch, 30 ft. span, 18 ft. roadway, 90.4 cu.yd. Class "C" concrete, 500 lb. reinforcing and 13,700 lb. fabricated structural steel, 3,300 ft. oak lumber, etc., $5,049; I-beam superstructure over drainage ditch, on Sta. 260 plus 40, 25 ft. span, 18 ft. roadway, 84.5 cu.yd. Class "C" concrete, 470 lb. reinforcing and 11,700 lb. fabricated structural steel, 2,820 ft. oak lumber, etc., $4,610, all on above project.

Mo., Fulton—Until Oct. 22, by Callaway Co., grading, graveling and paving 18 mi. road, 9 ft. wide, macadam, cost $119,000; building 2 bridges on above road, $13,690. Shockley Eng. Co., Graphic Arts Bldg., Kansas City, Mo., engrs.

Ark., Little Rock—Until Oct. 20, by Comrs. Little Rock and Spring Lake Highway Dist., paving 25 mi. road, concrete or asphalt. Lund & Hill, 527 Southern Trust Bldg., engrs.

Tex., Houston—Until Oct. 25, by C. H. Bryan, judge Harris Co., scarifying and surfacing 4 mi. Highway 2 from Fairbanks to Satsuma, 16 ft. wide, involving 5,216 cu.yd. gravel and 1,880 cu.yd. shell surfacing. About $37,169. Howe & Wise, co. engr.

Tex., Sinton—Until Oct. 20, by J. C. Hout, judge San Patricio Co., grading, surfacing and building concrete culverts on 15.06 mi. Highway 9 in. Rd. Dist. 1, involving 14.1 mi. machine grading, 9,303 cu.yd. borrow and 3,202 cu.yd. earth excav., 2,768 lb. reinforcing steel, 15,629 cu.yd. gravel and 27,389 cu.yd. shell surfacing, 24 cu.yd. Class "A" and 12 cu.yd. Class "B" concrete, cost $157,844; grading, surfacing, draining and building 125 ft. steel span bridge on 12.54 mi. Highway 9 in. Rd. Dist. 5, 12.04 mi. machine grading, 35,703 cu.yd. earth excav., 560.8 cu.yd. Class "A" and 174.6 cu.yd. Class "B" concrete, 12,982 cu.yd. gravel and 22,760 cu.yd. shell surfacing, 94,800 lb. structural and 38,368 lb. reinforcing steel, etc., $191,600. Special bid for constructing 8 mi. above road from here to Bee Co. line will also be accepted. Noted Oct. 7.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Brighton** (Boston P. O.)—Pub. Wks. Dept., 508 City Hall Annex, Boston, let contract paving Market and Arlington Sts., asphalt, to Simpson Bros., Corp. 77 Summer St., Boston, $97,742.

★**Mass., Boston**—Dept. Pub. Wks. let contract paving Mt. Vernon St., asphalt, to J. W. O'Connell, Radcliffe Rd., Brighton. About $25,000.

★**Mass., Boston**—City let contract relaying granite block pavement on Friend, Richmond and Portland Sts. to B. E. Grant, 27 School St., $87,300; paving with asphalt, Arbutus St., Dorchester, to M. De Matteo, 154 Dudley St., Roslindale, $13,100.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contracts regulating and paving 4th Ave. and Front St. to W. J. Fitzgerald, 547 West 45th St., $12,299 and $30,766 respectively. Noted Sept. 23.

★**Alabama**—State Highway Dept., Montgomery, let contract grading, draining and surfacing 5.44 mi. State Trunk Rd. from Girard to Tuskegee, Russell Co., sand clay, to L. C. Rawlinson, Montgomery, $38,936; 12.053 mi. Chisholm Rd. from Florence to Tennessee state line, Lauderdale Co., chert and gravel, to W. T. Taylor Constr. Co., Wilsonville, $156,885. Noted Oct. 7.

Ohio—State Highway Comn., Columbus, received bids Oct. 8, building roads in following counties:

Athens Co., Sect. "R" Logan-Athens Rd., 0.637 mi., grading, constructing bridges and culverts and paving with brick on rolled base, from F. Beckler, Athens, $41,093.

Clermont Co., Sect. "N-2" Milford-Hillsboro Rd., 3.548 mi., grading, constructing bridges and culverts and paving with waterbound macadam, W. Wiggin, Milford, $100,100; C. L. Wright, 1345 Custer Ave., Mt. Lookout, Cincinnati, $100,197.

Sect. "A" Milford-Vere Cruz Rd., 2.433 mi. grading, constructing bridges and culverts and paving with waterbound macadam, C. L. Wright, Cincinnati, $69,552.

Hancock Co., Sect. D, Lima-Sandusky Rd., 6.047 mi. grading, constructing bridges and culverts and paving, from Watts, Schriber Co., Toledo, bituminous concrete on concrete base, $291,112, rein.-con., $256,263, monolithic brick, including brick, $299,975, bituminous concrete on waterbound macadam base, $285,375; Dorsey Constr. Co., Findlay, rein.-con., $258,763, monolithic brick, including brick, $301,975, bituminous concrete, $287,697.

Hocking Co., Sect. "P-1," Logan-New Lexington Rd., 5.351 mi. grading, constructing bridges and culverts and paving with bituminous macadam, J. Petrie, Logan, $214,276; Richeldefer Constr. Co., Circleville, $214,670.

Sect. "N," Logan-Chillicothe Rd., 6.53 mi., grading, constructing bridges and culverts and paving with waterbound gravel, Curry & Hayes, Eaton, $151,797; W. D. Winchell, 337 Siebert St., Columbus, $153,254; C. J. Breckenridge, Columbus, $153,763.

Lake Co., Sect "A," Painesville-Ravenna Rd., 4.735 mi., grading and constructing bridges and culverts, Wilms-Hogan Constr. Co., Cleveland, $29,491; Miller & Rothrock, Lakeville, $30,019; Post Constr. Co., Cleveland, $31,514.

Lorain Co., Sect. "O," Medina-Norwalk Rd., 2.50 mi., grading, constructing culverts and paving with waterbound macadam, Aldrich, Ellison & Bates, Spencer, $63,264; H. J. Hart, Elyria, $63,267.

Meigs Co., Sect. "L," Pomeroy-Athens Rd., 2.839 mi., grading, roadway, and constructing bridges and culverts, Ryan Stone & Constr. Co., Maumee, $42,703.

Sect. "M," Pomeroy-Athens Rd., 4.007 mi., grading roadway and constructing bridges and culverts, J. Paul Long, Centerburg, $79,166.

Mercer Co., Sect. "H-1," Celina-Greenville Rd., 1.5 mi., grading, constructing bridges and culverts and paving with reinconcrete, M. L. Hinton Co., Celina, $65,035; Studebaker & Son, Greenville, $66,538; Beard & Frost, Portland, Ind., $66,994.

Pike Co., Sect. "A," Waverly-Coopersville Rd., 6.1403 mi. grading, consructing bridges and culverts and paving with waterbound gravel, W. D. Winchell, 337 Siebert St., Columbus, $40,349; C. A. Arthur, Jackson, $41,250; C. M. Gray, Westerville, $41,361.

Sect. "B," Waverly-Coopersville Rd., 6.734 mi., grading, constructing bridges and culverts and paving with waterbound gravel, C. A. Arthur, Jackson, $34,707; Harper & Ruel Co., Portsmouth, $35,678; W. D. Winchell, 337 Siebert St., Columbus, $35,351.

Summit Co., Sect. "A," Akron-Youngstown Rd., 2.49 m., grading, constructing bridges and culverts and paving, J. D. Waggoner, Ravenna, rein.-concrete, $109,043; Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria, bituminous concrete, $122,696; Ohio Eng. Co., Lorain, bituminous concrete, $122,945.

Sect. "Q," Akron-Medina Rd., 2.27 mi. grading, constructing bridges and culverts and paving with rein.-concrete, W. A. Lyon, Ravenna, $129,167.

Williams Co., Sect. "D," Bryan-Wauseon Rd., 1.582 mi. grading, constructing bridges and culverts and paving, J. A. Elder, Bryan, bituminous macadam, $67,017; Zeller & Drum, Swanton, bituminous concrete, $68,479; J. A. Elder, Bryan, bituminous concrete, $68,479.

Defiance Co., Sect. "E," Bryan-Ft. Wayne Rd., 1.77 mi., constructing bituminous macadam top course and shaping berms and ditches, D. M. Roach, Defiance, $21,686; J. A. Elder, Bryan, $21,781.

Jefferson Co., Sect. "J," Ohio River Rd., 0.085 mi., removing cliff rock and sealing fire clay seam, H. Brown, Ellsworth Station, $11,265; C. W. Ryan Co., Maumee, $11,375. Noted Sept. 23.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 4.155 mi. Assessment Dist. 394, 12 ft. wide, Ingham and Eaton Counties, to Brown-Gordon Co., Lansing, $43,9[illegible]. Noted Sept. 23.

★**Ill., Silvis**—City let contract paving 15th, 5th, 6th and 7th Sts., to McCar[illegible] Impvt. Co., 220½ Main St., Davenport, [illegible] $25,161.

★**Wisconsin**—State Highway Dept., Milwaukee, let contract grading and building concrete culverts on .45 mi. Lake Shore Rd., Federal Aid Project 169, Sheboygan Co., to Clios & Myer, 1600 Oakland Ave., Milwaukee. About $25,000. Noted Oct. 7.

★**Wis., Monticello**—City let contract grading and paving .9 mi. Railroad St., involving 8,046 sq.yd. 1 course concrete, to Webb & Dixon, Main St., Albany, $26,712.

★**N. D., Mott**—Hettinger Co. let contract building 7 mi. Federal Aid Jroject 37A, 24 ft. wide, involving 4 acres clearing and grubbing, 45,533 cu.yd. excav. 3,735 cu.yd. overhaul, etc., to Stanley Bros., St. Cloud, Min. $37,842.

★**Missouri**—State Highway Dept., St. Joseph, let contract to Buchanan Co., St. Joseph, building 20.02 mi. Sect. A, St. Joseph-Atchison Rd., 24 ft. wide, Federal Aid Project 49, $127,213; 20.02 mi. Sect. C, St. Joseph-Atchison Rd., 18 ft. wide, Federal Aid Project 49, $814,330, both Buchanan Co. Noted Sept. 30.

★**Tex., Cameron**—Milam Co. let contract improving 5.71 mi. Highway 44, Federal Aid Project 191, (a) involves 2 acres clearing and grubbing, grading road, 4,177 cu.yd. earth borrow and surfacing road with schist and gravel, (b) building rein.-con. drainage structures, to F. L. Tribble, Rackdale, (a) $28,861, including 10% for engineering and contingencies; J. L. Barmore, Cameron, (b) $4,469. Noted Sept. 30.

Tex., Eldorado—C. A. Womack, judge Schleicher Co., received only bid Sept. 21, grading, surfacing and draining 4.01 mi. Highway 4 south from here, from Schleicher Co., $77,036. Work involves 3,562 cu.yd. borrow and 9,558 cu.yd. earth excav., 6,271 cu.yd. sledge stone surfacing, 21.55 cu.yd. Class "A" and 3.6 cu.yd. Class "C" concrete. Noted Sept. 16.

★**Tex., Franklin**—Robertson Co. let contract grading, surfacing and building concrete and steel bridges and concrete culverts on 17.99 mi. Highway 14 from Nesbit to point 2 mi. north of Wheelock, 15 ft. wide, to Harris & Powell, Tyler, $203,136, including 10% for engineering and contingencies. Work involves 114.9 acres clearing and grubbing, 83,797 cu.yd. borrow and 35,954 cu.yd. earth excav., 1,285.07 cu.yd. Class "A" concrete, 35,050 cu.yd. gravel, 20,080 ft. floor for steel spans, 102,740 lb. reinforcing and 145,200 lb. structural steel. Noted Sept. 2.

Tex., Kaufman—Kaufman Co. received bids Sept. 28, for (1) grading, surfacing and draining 16.21 mi. Highway 15 through Precinct 3, Federal Aid Project 130, involving 4 acres clearing and grubbing, 11,171 cu.yd. earth excav., 30,209 ft. creosoted timber, 20,627 cu.yd. gravel surfacing, 4,907 lb. structural and 9,682 lb. reinforcing steel, (2) grading and surfacing 14.86 mi. Highway 40 through Precinct 7, 35.3 acres clearing and grubbing, 111,795 cu.yd. earth borrow and 34,086 cu.yd. earth excav. and 33,844 cu.yd. gravel, from Womack Constr. Co., Houston, (1) $67,871, (2) $105,533; Smith Bros. and Healey Constr. Co., c/o Smith Bros., Crockett, (1) $81,138, (2) $122,577. Noted Sept. 2 and 9.

Tex., Marlin—Falls Co. received bids Sept. 30, improving 6.78 mi. Highway 2 through Precinct 1, (a) involves 38.3 acres clearing and grubbing, grading road, 23,811 cu.yd. borrow gravel surfacing and building rein.-con. drainage structures, (b) topping with 1½ in. bituminous material, from Phipps & Whatley, Marlin, (a) $88,319; Brown & Root, Taylor, (a) $95,142; Williams-Burk Co., Jacksonville, (a) $90,659; Smith Bros., Crockett, (a) and (b) $172,514. Noted Sept. 23.

★**Tex., San Antonio**—Bexar Co. let contract building drainage structures on 6.2 mi. Highway 9 from Atascosa Co. line north, to J. L. Black, San Antonio, $4,756; grading and graveling will be done by day labor, cost $76,311. Noted Sept. 23.

Tex., Seguin—Guadalupe Co. received bids Oct. 5, improving 3.256 mi. Meridian Highway from Bexar Co. line to Comal Co. line, (a) 2 in. or 1½ in. Willite asphalt concrete pavement, (b) 2 in., or 1½ in., hot application natural rock, from Texas Wil-

Streets and Roads (Continued)

lite Road Constr. Co., 301 Mason Bldg., Houston, (a) 2 in. $77,622. 1½ in., $71,891; Chapin-Coglazier Constr. Co., Moore Bldg., San Antonio, (b) 2 in. $50,749, 1½ in. $45,991. Noted Sept. 23.

★**Wash., Seattle**—City let contracts paving, curbing and building sewers in 10th Ave., N., et al., to F. N. Badolato, Builders Exch., $70,694; subgrading, curbing and paving Shishole Ave., et al., to Fiorito Bros., 602 2d Ave., N.W., $73,483. Noted Sept. 30.

★**Ont., Toronto**—City let contract paving Dufferin St. and Willard Ave., involving 9,000 sq.yd. Warrenite bitulithic on 6 in. concrete base, to Warren Bituminous Co., McKinnon Bldg. About $46,000.

Railways

PROPOSED WORK

Texas—City of Houston plans election to vote on $150,000 bonds to build extension to municipal railway and $475,000 bonds to build switch yards and connections at wharves.

BIDS DESIRED

Michigan—Until Oct. 18, by Comr. Purchases & Supplies, Municipal Court Bldg., Detroit, furnishing industrial railroad tracks, switches, etc., to include two hundred and fifty 7½-15 ft. sections straight track, 90 extra ties with shoes for rail joints, 5 right and 5 left hand switches, for Street Ry Comn. W. C. Markham, ch. engr.

Excavation and Dredging

PROPOSED WORK

Wis., Racine—Drainage—Farm Drainage Bd. plans to build D. D. 1. About $25,000.

Ia., Indianola—Excavation—T. Darnell, aud. Warren Co., opens bids in December, straightening Middle River. About $80,000. A. S. Van Sandt, Clarinda, engr.

Ia., Oskaloosa—Ditch—Mahaska Co. rejected bids received Sept. 18 building 7.6 mi. open ditch in D. D. 5, involving 489,158 cu.yd. excav. D. B. Russell, Oskaloosa, engr. Noted Sept. 9.

BIDS DESIRED

Ill., Geneseo—Ditch—Until Oct. 26, by Comrs. Rock River Drainage and Levee Dist., Henry and Whiteside Counties, at office of H. Waterman, atty., Geneseo, building main and lateral ditches, involving 272,000 cu.yd. excav. L. S. Ropp, R. R. 6, chn.; advertised in this issue.

Ill., Rochelle—Ditch and Drain—Until Oct. 26, by Gardner & Gardner, attys., Rochelle, building ditches and drains in Brush Grove D. D., Lee and Ogle Counties, to include cleaning and enlarging 13.7 mi. earth ditches, involving 217,000 cu.yd. earth excav., constructing 3.2 mi. new open ditches, involving 44,000 cu.yd. earth excav., and laying 25,200 ft. 12-27 in. tile. C. W. Clark, engr.

Wis., Manawa—Drain—Until Oct. 25, by C. Ross, secy. Waupaca Co. Drainage Bd., building 16,000 ft. tile drain. L. M. Schindler, Appleton, engr.

Ia., Marengo—Drainage—Until Oct. 26, by A. H. Hunter, aud. Iowa Co., building D. D. 8, 54,300 ft. long, 13 ft. deep, involving 457,600 cu.yd. excav. About $100,000. Noted Sept. 9.

S. D., Hayti—Ditches—Until Oct. 20, by A. E. Johnson, aud. Hamlin Co., building 5 mi. Bryant D. D., involving 3,500 cu.yd. excav.; 13 mi. Barrett D. D., 4 ft. wide, 7½ mi. clean out work; 4 mi. Tetslaff D. D., 7,000 cu.yd. excav. About $25,000. Dakota Eng. Co., Mitchell, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Webster City**—Drainage—Hamilton Co., let contract to Natl. Sewer Pipe Co., Webster City, furnishing tile and other material building Matilda Weimer D. D. 241, Lydia Anderson D. D. 242 and Sven Erickson D. D. 240, $25,750, $21,636 and $6,979 respectively; to O. C. Kelvig, Ellsworth, furnishing labor building D. D. 241 and D. D. 240, $31,289 and $12,869 respectively. Noted Sept. 16 and 30.

★**Ontario** — Dredging — Dept. Pub. Wks., Ottawa, let contract for dredging work at Whitby, Oakville and Bowmanville to C. B. Boone Dredging & Constr. Co., Excelsior Life Bldg., Toronto, $0.65 per cu.yd. About $41,000.

★**Ont., Kingston**—Dredging—Dept. Pub. Wks., Ottawa, let contract dredging above Cataraqui Bridge and at harbor front to Frontenac Dredging Co., Toronto, at $0.50 per cu.yd. About $85,000.

★**Ont., Port Hope**—Dredging—Dept. Pub. Wks., Ottawa, let contract dredging here to Frontenac Dredging Co., Toronto, at $1.70 per cu.yd. About $38,000.

Industrial Works

PROPOSED WORK

Me., Westbrook—S. D. Warren & Co., Cumberland Mills, plans to build 1 story, 90 x 250 ft., brick and concrete warehouse, concrete foundation. About $50,000. Private plans.

N. J., Garfield—De Mattia Bros. plan to build 90 x 200 ft. factory. About $200,000. J. F. Kelley, P. O. Bldg., Passaic, engr.

Pa., Royalton—Vogt Farm Meats Products Co. having surveys made by I. J. Boyd, Middletown, for 2 story, 60 x 200 ft., brick and steel factory, on Youngs Lane here, to include warehouse, stock yard buildings, etc. About $150,000.

Md., Fairfield (Baltimore P. O.)—Union Shipbuilding Co. plans to build 2 story, 70 x 200 ft. carpenter shop.

O., Cleveland—Betz-Pierce Co., 2230 East 9th St., plans to build 2 story, rein.-con., brick and steel warehouse, rein.-con flooring, brick and concrete foundation, on East 44th St. and Payne Ave. About $125,000. Architect not selected.

O., Cleveland — The Brass Co., c/o A. Sogg, archt., 319 Hippodrome Bldg., having plans prepared for 1 story, 75 x 160 ft., brick and steel foundry and machne shop, brick foundation. About $100,000.

O., Cleveland—Cleveland Grain Co., Engineers Bldg., plans to build 1 story mill and elevator, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $150,000. A. E. Baxter Eng. Co., Elliott Square, Buffalo, N. Y., engrs.

O., Cleveland—Laundryette Co., 1190 East 152nd St., plans to build 2 story, rein.-con., and brick addition to factory, rein.-con. flooring, brick and concrete foundation, on East 152nd St. and St. Clair Ave. About $53,000. E. T. Van Dorn, pres. Private plans.

O., Cleveland—B. J. Schwartz, Williamson Bldg., plans to build 2 story, 100 x 100 ft., brick and steel factory, brick foundation, on Lakeside Ave. near East 17th St. About $60,000. Architect not selected.

O., Cleveland—D. D. Wessels, 1385 East 17th St., opens bids about Oct. 20, building 2 story, 107 x 116 ft., brick and steel factory, brick foundation, on East 21st St. and Oregon Ave. About $100,000. W. G. Caldwell, Park Bldg., archt. Noted July 8.

O., Conneaut—See "Buildings."

Mich., Detroit—Detroit Evening News, Lafayette Blvd., plans to build 1 story, 90 x 140 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation. A. Kahn, Marquette Bldg., archt.

Mich., Hamtramck (Detroit P. O.)— Jeffery-Dewitt Co., Butler Ave. along tracks of Grand Trunk Ry., Detroit, plans to build 5 story addition to porcelain factory, rein.-con. and brick, rein.-con. flooring, concrete foundation on Butler Ave. here. About $200,000.

Ill., Chicago—Kroeschell Bros. Co., 460 West Erie St., having plans prepared by Davidson & Weiss, archts., 53 West Jackson Blvd., for 1 and 2 story, 220 x 338 ft., brick and steel factory, on Diversey St. along tracks of Chicago, Minneapolis & St. Paul R.R. About $800,000.

Wis., De Pere—Clover Leaf Dairy Co. plans to build 1 story, 40 x 160 ft., brick, rein.-con. and steel factory, brick foundation, on Main St. About $100,000. Architect not selected, probably private plans.

Wis., Milwaukee — P. Bogenski, 1139 Grove St., plans to build 1 story, 70 x 172 ft., brick and concrete factory, concrete foundation. Private plans.

Wis., Milwaukee — A. C. Eschweiler, archt., Goldsmith Bldg., soon lets contract building 1 story, 120 x 130 ft., rein.-con. and brick garage, rein.-con. flooring, concrete foundation, on Clybourn St., for Wisconsin Telephone Co., 418 Bway.

Wis., Racine—Goodrich Transit Co., East 2nd St., completing plans for 1 story, 50 x 200 ft., rein.-con. warehouse, rein.-con. flooring, concrete foundation. Private plans.

Minn., Minneapolis—S. J. Bowler, archt., 617 Phoenix Bldg., preparing plans for 2 story, 100 x 100 ft. rein.-con. and brick garage. About $50,000. Owner's name withheld.

Tex., Houston—City plans election to vote on $150,000 bonds to build cotton sheds.

Wash., Seattle—A. M. Castle Co., 1201 1st St., S., having plans prepared by J. R. Nevins, Archt., Hoge Bldg., for 2 story, 160 x 720 ft. factory, brick, rein.-con. flooring, concrete foundation, on East Marginal Way and Alaska St. About $200,000.

N. B., Grand Falls—International Paper Co., Three Rivers, Que., receives bids in November, building pulp and paper plant here, capacity 200 tons newsprint daily. About $1,000,000. P. T. Dodge, pres.

Que., Clarke—Clarke Trading Co., Ltd., soon receives bids building pulp and paper plant. About $500,000.

Ont., St. Thomas — Canadian Edison Phonograph, Ltd., purchased large factory and plans to remodel and equip same. About $250,000. O. J. Haarlander, mgr. Private plans.

BIDS DESIRED

Mass., Lynn—General Electric Co., 84 State St., receiving bids building 1 story, 160 x 300 ft., concrete, brick and steel addition to plant, rein.-con. flooring, concrete foundation. About $150,000.

N. Y., New York—Until Oct. 21, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., constructing housing station, on Henry, Madison and Birmingham Sts., for Dept. Street Cleaning.

N. Y. Tonawanda—Stanley Steel Welded Wheel Corp., 40 Court St., Boston, receiving bids building 1 story, 100 x 200 ft., concrete and steel factory, rein.-con. flooring, concrete foundation. About $100,000. Private plans.

Pa., Phila.—Clark & Dudnick, archts. and engrs., Drexel Bldg., receiving bids building 1 story, 110 x 170 ft., rein.-con., brick and steel garage, on 33rd, Columbia and Nationa Sts., for J. C. Ulick, c/o architects.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Lisbon Falls**—Worumbo Mfg. Co. let contract building 2 story, 53 x 93 ft. boiler house and 2 story, 50 x 63 ft. turbine house, brick and concrete, at plant, to Turner Constr. Co., 178 Tremont St., Boston. Cost to exceed $50,000. Noted Sept. 30.

★**Mass., Fall River**—Fall River Robbin & Shuttle Co., 821 Cambridge St., let contract building 4 story, 41 x 100 ft., brick and steel addition to plant, concrete foundation, to Genl. Eng. & Constr. Co., New Bedford Savings Bank Bldg., New Bedford. About $50,000.

★**Mass., Fitchburg** — Fitchburg Gas & Electric Light Co., 537 Main St., let contract building 2 and 3 story, 58 x 152 ft., boiler house, machine shop and service station additions, steel and concrete, rein.-con. flooring, concrete foundation, on Sawyer Passageway, to Wiley & Foss, Central St. About $125,000.

★**Mass., Norwood**—Holliston Mills, Lenox Ave., let contract building 2 story, 134 x 282 ft. brick and mill construction factory, rein.-con. flooring, concrete foundation, also 1 story, 50 x 70 ft. brick boiler house, at plant, to C. A. Batson, 26 Arlington St., Brockton. About $300,000. Incorrectly noted in our issue of Sept. 23.

★**Mass., Somerville**—New England Breakfast Food Co., 29 Newberne St., will build 3 story, 45 x 85 ft. addition to plant, concrete and steel, rein.-con. flooring, concrete foundation, on Lowell St. About $50,000. Work will be done by day labor. Noted Sept. 30.

★**Mass., Watertown** (Boston P. O.)—Walker & Pratt Mfg. Co., 31 Union St., Boston, let contract building 1 story, 120 x 160 ft., brick and steel addition to plant, rein.-con. flooring, concrete foundation, on Cypress St., to T. Stuart & Son, Inc., Pearl St., Newton. About $70,000.

★**Mass., Whitinsville** — Whitins Machine Wks. will build 5 story, 80 x 400 ft. brick and rein.-con. carpentry shop, rein.-con. flooring, concrete foundation. About $500,000. Work will be done by day labor. Noted Sept. 30.

Industrial Works (Continued)

★**Mass., Worcester**—W. J. Whittall, Brussells St., let contract building 1 story, 83 x 202 ft., concrete, brick and steel addition to mill, concrete flooring, concrete foundation, on Southbridge St., to J. J. Power, 15 Ashland St. About $125,000.

★**R. I., Providence**—Vesta Knitting Mills, 4 Blount St., let contract building 6 story brick and timber addition to mill, concrete foundation, to J. F. Cole, 81 Niagara St. About $50,000.

★**N. Y., Brooklyn**—Amer. Marine Paint Co., Inc., 175 Dwight St., will build 2 story, brick and steel factory, rein.-con. flooring, concrete foundation, on Richards St. About $75,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Borough Park Garage Co., 1434 49th St., New York City, will build 4 story, 90 x 100 ft., brick and steel factory, rein.-con. flooring, concrete foundation, on 14th Ave. and 38th St. Work will be done by day labor.

★**N. Y., Brooklyn**—J. P. Kelly, c/o Carlson & Wiseman, archt. and engrs., 226 Henry St., will build 1 story, 130 x 190 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on East 16th St. near Kings Highway. About $50,000. Work will be done by day labor.

★**N. Y., Brooklyn**—M. Klein, 783 Nostrand Ave., will build 1 story, 75 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Stockholm St. near Central Ave. About $75,000. Work will be done by day labor.

★**N. Y., Brooklyn**—W. G. Lahn, 57 East 15th St., will build 1 story, 100 x 160 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 87th St. near 4th Ave. About $55,000. Work will be done by day labor.

★**N. Y., Brooklyn**—I. Stalman, c/o P. Caplan, archt., 16 Court St., will build 1 story, 85 x 250 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 65th St. near 5th Ave. About $75,000. Work will be done by day labor.

★**N. Y., Buffalo**—Amer. Car & Fdry. Co., 370 Babcock St., let contract building 1 story, 43 x 100 ft., brick and steel boiler house, to J. W. Cowper Co., Fidelity Bldg. About $50,000.

★**N. Y., New York**—City Real Estate Co., 176 Bway., will build 1 story, 75 x 200 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Boston Rd. near Jefferson Pl. About $50,000. Work will be done by day labor.

★**N. Y., New York**—J. P. Kelly, c/o Carlson & Wiseman, archts. and engrs., 226 Henry St., Brooklyn, will build 4 story, 50 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 521 West 161st St. About $100,000. Work will be done by day labor.

★**N. Y., New York**—Rechnitz Bros., 143 Liberty St., will build 1 story, 100 x 195 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 302 East 45th St. About $150,000. Work will be done by day labor.

★**Pa., Lebanon**—Cornwall R.R., Donaghmore St., let contract building 1 story, 150 x 200 ft. machine shop, brick and steel, to Austin Co., Bulletin Bldg., Phila.

★**Pa., Phila.**—Amer. Stores Co., 19th and Penn Sts., let contract building 5 story, 40 x 90 ft., brick and concrete addition to warehouse, to A. B. Kister, 621 Sansom St. About $100,000.

★**Pa., Phila.**—C. B. Porter, 126 North 2d St., let contract altering brick garage and factory, at 123 North Broad St., to Stewart Bros., 2528 North Orkney St. About $75,000.

★**Pa., Phila.**—Staybestos Mfg. Co., Linn and Armat Sts., let contract building 2 story, 60 x 150 ft., concrete and brick factory, on Berkeley St. and Germantown Ave., to R. M. Peterson & Son, 5114 Germantown Ave. About $75,000.

★**Md., Baltimore**—Amer. Ice Co, Calvert Bldg., let contract building 33 x 82 x 99 ft. storage building, 82 ft. high, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Montford Ave. near Chase St., to G. A. Fuller Co., Amer. Bldg. About $200,000. Noted Oct. 7.

★**Md., Baltimore**—I. Silberstein, 607 Equitable Bldg., will build 6 story, 48 x 144 ft., concrete, brick and steel warehouse, concrete foundation, on Fayette and Paca Sts. About $150,000. Work will be done by day labor. Noted June 29.

★**O., Bucyrus**—Ohio Crane Co. let contract building 2 story, 100 x 127 ft., brick and steel factory, to Austin Co., 16112 Euclid Ave., Cleveland. About $75,000.

★**O., Elyria**—Universal Crane Co., 1106 Swetland Bldg., Cleveland, let contract building 1 story, 118 x 180 ft., brick and steel factory, brick foundation, to J. R. Gloyd Co., 1816 East 33rd St., Cleveland. About $125,000.

★**O., Fremont**—Henkel-Clauss Cutlery Co. let contract building 2 story, 125 x 187 ft., brick and steel factory, to Steinle Constr. Co. About $100,000.

★**Ind., Indianapolis**—Westinghouse Lamp Co., 165 Bway., New York City, let contract building rein.-con., brick and steel plant, rein.-con. flooring, concrete foundation, to D. P. Robinson, 125 East 46th St., New York City. About $500,000. Noted Aug. 12.

★**Wis., Cudahy**—Worthington Pump & Mchy. Co., Packard Ave., let contract building 2 story, 60 x 175 ft., mill construction pattern shop and storage building, concrete foundation, to W. Tubesing, 139 Chestnut St., Wauwatosa. About $130,000. Noted Aug. 12.

★**Wis., Milwaukee**—Wisconsin Food Products Co., Port Washington Rd., let contract building 1 story, 60 x 200 ft., rein.-con. and brick garage, rein.-con. flooring, concrete foundation, to W. Oeflein, 86 Michigan St. Noted Sept. 9.

★**Wis., Neillsville**—Neillsville Auto Co. let contract building 1 story, 90 x 120 ft., brick and concrete factory, rein.-con. flooring, concrete factory, rein.-con. flooring, concrete foundation to Schneider Constr. Co., Eau Claire. Noted Sept. 23.

★**Wis., Phillips**—See "Buildings."

★**Wis., Random Lake**—E. Fischer let contract building 2 story, 60 x 152 ft., cheese and dairy product factory, brick, rein.-con. and steel, rein.-con. flooring, brick and foundation, on Main St., to J. Gessner, Main St. About $50,000.

★**Ia., Cedar Rapids**—Concrete Products Co. let contract building 2 story, rein.-con. and brick factory and office, to J. Klepach Constr. Co., 1128 South 3rd St. About $60,000.

★**Col., Sterling**—Great Western Sugar Bldg., Denver, will build concrete, brick and steel factory, concrete foundation, to have 1,200 ton capacity, near here. About $2,000,000. Work will be done by day labor.

Wash., Seattle—School Dist. Central Bldg., received bids Sept. 25, constructing 3 story, 126 x 250 ft. warehouse, machine, plumbing and general shop building, rein.-con., rein.-con. flooring, concrete foundation, on 8th Ave. and Valley Sts., from J. A. McEachern, Colman Bldg., $249,000; Puget Sound Bridge & Dredging Co., Central Bldg., $249,300; Jenkins, Jones & Co., Hinckley Bldg., $249,540.

★**Que., Montreal**—Sherwin Williams Co., Ltd., Centre St., let contract building 3 story addition to paint factory, concrete, brick and steel, concrete foundation, to Anglin Norcross, Ltd., 65 Victoria St. About $62,000.

★**Ont., Midland**—Copeland Flour Mills, Midland Ave., let contract building 7 story, 100 x 170 ft. rein.-con. and steel mill, to McFarlane, Pratt Hanley Co., Waterfront St. About $365,000.

Buildings

PROPOSED WORK

Mass., Boston—Bank—Monks & Johnson, archts. 99 Chauncey St., preparing plans for brick and stone, on Washington and Essex Sts. About $100,000. Owner's name withheld.

Mass., Brookline (Boston P. O.)—Hotel—C. A. Newhall, 18 Tremont St., Boston, plans to build 8 story, brick and rein.-con. on Beacon St. About $1,500,000. H. A. Perkins, 8 Beacon St., Boston, arch.

Mass., Dalton—Community—Town plans to build community house. About $100,000. Architect not selected.

Mass., Holyoke—Exchange—New England Telegraph & Telephone Co., 119 [illegible] St., Boston, plans to build large brick and concrete, on Elm and Suffolk Sts. Architect not selected.

Mass., Lynn—Society—Knights of Columbus plan to build brick and steel on Common St. About $100,000. Saworth & Weed, 38 Exchange St., archts. Noted March 11.

Mass., Lynn.—Theatre—Goodman & Gordan, Andrew St., plan to build brick, steel and concrete, on Andrew St. and Central Ave. About $500,000. Architect not selected.

Mass., Malden (Boston P. O.)—Store and Office—Thorp & Marky, 33 Jackson St., plan to build brick and steel, on Converse Sq. About $100,000. M. F. Davis, Hildreth Bldg., Lowell, archt.

Mass., Roslindale (Boston P. O.)—Temple—Masonic Bldg. Assn. plans to build 2 story, brick and concrete, on South and Conway Sts. About $100,000. H. B. Alden, 15 Exchange St., Boston, archt.

Mass., Swampscott (Lynn P. O.)—Theatre—C. T. McFarland, archt., 162 Newbury St., Boston, soon lets contract building 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Main St., here, for Sherburne Inc., 1 Beacon St., Boston. About $800,000. Noted Aug. 12.

Mass., Westfield—School—Town plans to build 2 story, 8 room, and assembly Hall addition, to Mosely School. About $125,000. M. B. Harding, 33 Elm St., engr.

Mass., Worcester—Chapel—Holy Cross College having plans prepared by Sheehan & Colleary, archts., 120 Boylston St., Boston, for 1 story, concrete, brick, steel and stone memorial chapel, on campus. About $300,000. J. J. Carlin, pres. Noted Sept. 16.

R. I., Providence—School—Pub. Bldg. Dept. will open bids about Oct. 18, building 3 story, 42 x 130 ft., brick and steel, rein.-con. flooring, concrete foundation, on Nelson and Jastram Sts. About $125,000. Noted July 8.

Conn., East Lyme—Institution—Connecticut State Farm for Women, State Health Dept., Hartford, plans to build brick and concrete addition to institution, here. About $300,000. Architect not selected.

Conn., Versailles—Housing—Versailles Sanitary Fibre Mills having plans prepared by F. L. Smith, archt., 31 East 40th St., New York City, for twenty-five 2½ story frame houses, near plant, for workmen. About $125,000.

N. Y., Hempstead—Theatre and Office—S. Calderone, 80 Terrace Ave., having sketches made by T. W. Lamb, archt. and engr., 644 8th Ave., New York City, for 2 story, brick and stone, brick foundation on Fulton Ave., here. About $150,000.

N. Y., Ithaca—Administration—Grand Lodge Odd Fellows having plans prepared by Gibb & Waltz, archts., Trust Co. Bldg., for administration building. About $140,000.

N. Y., New York—Clubhouse and Arena—Audubon Sporting Club, c/o D. F. Land, archt. and engr., 110 West 34th St., having plans revised for 2 story, brick, steel and stone, brick foundation, on 145th St. and Lenox Ave. About $400,000. Noted Aug. 12.

N. Y., New York—Office—W. H. Dudley & Co., 165 Duane St., having plans prepared by Trowbridge & Ackerman, archts. and engrs., 19 West 44th St., for 2 story, 35 x 110 ft., brick and stone, brick foundation, on Varick and Watts Sts.

N. Y., Solvay (Syracuse P. O.)—School—Village plans election to vote on $150,000 bonds to build 2 story, brick and steel addition, on Woods Rd. M. L. King, Snow Bldg., Syracuse, archt.

N. Y., Syracuse—Church—First Church of Christ Scientist, 704 East Fayette St., plans to build church on East Jefferson St. About $200,000. G. Wright, City Bank Bldg., archt. and engr.

N. Y., Syracuse—Office—S. F. Hancock, O. C. S. B. Bldg., plans to build 12 story, 46 x 148 ft., brick and steel, rein.-con. flooring, concrete foundation, on South Warren St. Cost to exceed $250,000. W. C. Moulton, Union Bldg., archt. and engr.

Buildings (Continued)

N. J., Linwood—Club—McLanahan & Benner, archts., Bellevue Court Bldg., soon let contract building 1 and 2 story, 70 x 150 ft. and 75 x 150 ft., hollow tile and plaster, for Linwood Country Club. Noted Sept. 9.

N. J., Trenton—Jallade & Lindsey, archts. and engrs., 37 Liberty St., New York City, receive bids about Nov. 6, building brick, steel and stone, brick foundation, here, for Y. M. C. A., 2 West 45th St., New York City.

Pa., Cambria (Johnstown P. O.)—Theatre—M. B. Nairn, 102 McConaughty St., plans to build 3 story, 50 x 132 ft., brick, concrete and steel, rein.-con. flooring on 3rd Ave. and Broad St. About $100,000.

Pa., Erie—High School—Bd. Educ. receives bids about Nov. 15, building East Junior High School. R. F. Scobell, bus. mgr. Noted March 11.

Pa., Williamsport — Hotel — Williamsport Hotel Co., c/o W. L. Stoddart, archt. and engr., 9 East 40th St., New York City, having plans prepared for brick, steel and stone, concrete foundation, here. About $1,000,000.

Md., Catonsville (Baltimore P. O. — Asylum—General German Orphan Asylum, 224 Aisquith St., having plans prepared by W. M. Gieske, archt., 65 Gunther Bldg., for several 1 and 2 story buildings, rein.-con. and brick, concrete foundations, including cottage, power and heating plant, laundry, gymnasium, etc., on Bloomsbury Ave. About $150,000.

D. C., Wash.—Church—Emanuel Baptist Church, 16th St. and Columbia Rd., N. W., having plans prepared by E. Swarthout, archt., 18 West 34th St., New York City, for addition. About $250,000.

D. C., Wash.—Office—Southern R.R. Co., 13th and Pennsylvania Ave., N. W., plans to construct addition on top of present building. About $200,000. M. Heister & Co., Union Savings Bank Bldg., archts.

D. C., Wash.—School—Dist. Comrs. rejected bids received Sept. 14, building Woodridge-Langdon School. About $135,000. Noted Sept. 9.

Ala., Birmingham — Temple — Building Com., Masonic Temple Assn., soon receives bids building 4 story, 175 x 190 ft., temple and auditorium (main auditorium, capacity 4,000, small auditorium, 1,500), on 19th St. and 6th Ave., N. About $500,000. Warren & Knight, Empire Bldg., and H. B. Wheelock, Steiner Bank Bldg., archts. Noted Feb. 5.

Ala., Woodlawn (Birmingham P. O.)—High School—Bd. Educ. soon receives bids building 1st unit of new Woodlawn High School, 3 story, 60 x 275 ft., brick and cut stone. About $300,000. H. B. Wheelock, Steiner Bank Bldg., archt

La., Shreveport—Court House and Jail—City voted $200,000 bonds to build court house and jail.

La., Shreveport—Fire Stations—City voted $200,000 bonds to build central and suburban fire stations.

La., Shreveport—Library—City voted $265,000 bonds to purchase and also build library.

O., Akron — Bank and Office — Peoples Savings & Trust Co., Main and Exchange Sts., having plans prepared for brick and stone, brick foundation. About $500,000. J. B. Day, 1265 Bway., New York City, engr.

O., Cleveland—Hospital—Glenville Hospital, 701 Parkwood Drive, plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $150,000. H. E. Shimmen, 2031 Euclid Ave., archt. J. M. Benson, 701 Parkwood Drive, engr.

O., Cleveland — Commercial — C. Baden, 10512 Lee Rd., plans to build 6 story, 40 x 100 ft., rein.-con., brick and steel, rein.-con. flooring concrete foundation, at 1323 Payne Ave. About $150,000. Architect not selected.

O., Cleveland — Commerical — A. J. Rice, 1369 West 3rd St., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 37th St. and Woodland Ave. About $100,000. Architect not selected.

O., Conneaut—Exchange, etc.—Conneaut Telephone Exchange Co., having plans prepared by V. Redding, archt., 301 Bird Bldg., Mansfield, for 2 story, 40 x 80 ft. exchange and 40 x 40 ft. garage, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundations. About $100,000.

O., Independence—School—Bd. Educ. plans election Nov. 2, to vote on $100,000 bonds to build 2 story, rein.-con., brick and steel, rein.-con. flooring brick and concrete foundation. A. Gowdy, clk. Architect not selected.

O., Troy—Office—Office Gummed Products Co. having plans prepared for 3 story, brick and concrete. About $100,000.

O., Youngstown — Church — St. Pauls Church plans to build 1 story (including tower), 250 x 300 ft., brick and steel, rock foundation, on Oak Hill and Cleveland Aves. About $400,000. C. A. Martin, rector. E. T. P. Graham, 20 Beacon St., Boston, Mass., archt. Noted Sept. 16.

Mich., Center Line — High School — A. Kraemer plans to build Junior High School, 3 story, 63 x 190 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. Van Leyen Schilling, Keough & Reynolds, 556 Cass Ave., Detroit, archts.

Mich., Detroit — School — United Hebrew School, 239 East High St., plans to build 3 story, 60 x 250 ft., rein.-con., brick and steel concrete foundation, on Kirby Ave. and St. Antoine St. About $200,000. Architect not selected.

Mich., Groose Pointe Park (Detroit P. O.)—Office and Mercantile—A. M. Henry, 1940 Penobscot Bldg., Detroit, plans to build 2 story, 92 x 103 ft., rein.-con., brick steel and stone rein.-con. and hardwood flooring, concrete foundation, here. About $100,000. B. C. Wetzel & Co., Dime Bank Bldg., Detroit, archts.

Ill., Chicago—Club House—D. S. Klafter, archt., 64 West Randolph St., opens bids about Nov. 10, building 2 story, 60 x 300 ft., concrete and brick, concrete foundation, on Crawford and Devon Aves., for Bryn Mawr Country Club, 111 West Washington St. About $150,000. H. Goldstine, pres. Noted May 13.

Wis., Adams—Grade School—Bd. Educ. having plans prepared by E. L. Kronenberg, archt., 18 North Carroll St., Madison, for 2 story, 60 x 100 ft., rein.-con., brick and tile. About $100,000.

Wis., De Pere—Science Hall—St. Norberts College plans to build 3 story, 100 x 250 ft., brick, rein.-con. and steel, concrete foundation, on Main St. About $100,000. B. H. Penneys, pres. Architect not selected.

Wis., Eagle River—High School—City voted $125,000 bonds to buid high school. C. Wiegand, chn.

Wis., Frederic—High School—Bd. Educ. plans to build 2 story, 60 x 80 ft., brick, rein.-con. and tile. About $100,000. M. E. Yager, dir. E. J. Hancock, Lyric Bldg., Eau Claire, archt

Wis., Jefferson—Convent and Chapel—St. Coletta Convent Assn. soon receives bids building 3 story, 60 x 260 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Main St. About $260,000. E. Breilmaier & Sons Co., University Bldg., Milwaukee, archts. and engrs. Noted Sept. 23.

Wis., Kenosha—Hotel and Store—Sheridan Hotel Co., c/o M. J. Berend, 175 3d St., Milwaukee, having plans prepared by W. W. Ahlschlager, archt., 111 West Washington St., Chicago, for 10 story, 75 x 130 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Sheridan Rd., here. About $1,500,000

Wis., Milwaukee—School—Bd. Industrial Educ., 62 Mason St., plans to build 2nd unit of continuation school, 7 story, 145 x 268 ft., brick, rein.-con. and steel, rein.-con. flooring, on 6th and Prairie Sts. About $1,000,000. Van Ryan & De Gelleke, Caswell Blk., archts. and engrs.

Wis., Racine—Office—Journal-News Publishing Co., 328 Main St., soon receives bids building 2 story, 60 x 110 ft., rein.-con. and brick. About $100,000. F. R. Starbuck, secy. L. Bassindale, 321 Capitol Bank Bldg., St. Paul, Minn., archt.

Wis., Sheboygan—Club—Knights of Columbus, 529 North 8th St., plan to build 4 story club house. About $150,000. Architect not selected.

Wis., Wauwatosa—Orphanage—Lutheran Kinderheim, East Milwaukee Ave., plans to build 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, on East Milwaukee Ave. About $100,000. E. Weyland, Caswell Blk., Milwaukee, archt. Noted Sept. 30.

Ia., Davenport—Temple—Odd Fellows Temple Assn. having plans prepared by Clausen & Krause, archts., 316 Central Office Bldg., for 5 story, 60 x 150 ft. About $350,000.

Minn., Chisholm — School — Bd. Educ. opens bids about Jan. 2, building 3 story, 150 x 225 ft. rein.-con., brick and steel, concrete flooring and foundation, on 3rd Ave. and Chestnut St. About $250,000. Architect not selected.

Minn., Eveleth — School — Independent School Dist. 39 plans to build vocational school. City Council considering special election to vote on $700,000 bonds for project. J. M. Stearns, clk.

Minn., Minneapolis—Theatre and Store—S. J. Bowler, archt., 617 Phoenix Bldg., preparing plans for 2 story, 85 x 170 ft., rein.-con. and brick. About $100,000. Owner's name withheld.

Mo., St. Louis—Office—I. A. Hedges, Cupples Sta., (St. Louis P. O.), is interested in syndicate, which is having tentative plans prepared by P. J. Bradshaw, archt., International Life Bldg., for 3 story, 130 x 250 ft. concrete and steel, on Olive and Beaumont Sts. About $500,000.

Tex., Denison—Hotel—E. E. Hall, archt., 123 West Madison St., Chicago, preparing preliminary plans for (probably) 5 story, 150 x 150 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Woodard and Burnett Sts., here. About $400,000. Owner's name withheld.

Tex., Houston—Schools—City plans election to vote on $150,000 bonds to build schools.

Cal., Los Angeles—Hospital—Trinity Hospital Assn. having plans prepared by W. C. Pennell and G. H. Nevatt, archts., 204 Investment Bldg., for 4 story, Class "A" rein.-con., on 6th and Bonnie Brae Sts. to accommodate 150 patients. About $350,000.

Cal., Stockton—Hall, Exhibit, etc.—San Joaquin Co. election Nov. 2, to vote on $350,000 bonds to construct buildings at Agricultural Park. Noted June 17.

Que., Montreal—Dormitory—Governors of McGill University soon receive bids building dormitory on Pine Ave. section of campus. About $500,000.

Ont., London—Collegiate Institute—Bd. Educ., c/o R. M. McElheran, secy., Dundas St., receives bids about Nov. 15, 26 room building, on Dufferin Ave. About $750,000. L. E. Carrothers, c/o Bd. Educ., archt.

Ont., Windsor — Hospital — Salvation Army, c/o A. Martin, 394 Clarence St., London, receives bids in November, building brick and stone addition, here. About $180,000. A. Miller, c/o Salvation Army, 20 Albert St., Toronto, archt.

BIDS DESIRED

Mass., Blackstone — Housing — Jackson, Robertson & Adams, archts., Turks Head Bldg., Providence, receiving bids building 3 story, brick and timber houses for workmen, concrete foundations, on County and Butler Sts., for Blackstone Mfg. Co. Cost to exceed $100,000.

Mass., Boston—Store—Bigelow & Wadsworth, archts., 3 Hamilton Pl., receiving bids altering concrete and steel building on Chauncy and Bedford Sts., for Jordan, Marsh Co., 450 Washington St. About $100,000.

Pa., Oil City—Theatre—Until Oct. 25, by A. W. Johnson, archt. and engr., 469 5th Ave., New York City, building brick and stone, brick foundation, here, for Columbia Amusement Co., c/o architect. About $200,000. Noted July 22.

Va., Richmond—Gymnasium—Lee & Lee, associated archts., 918 East Main St., receiving bids building 2 story, 75 x 160 ft., brick and stone, on campus, for Richmond College. About $150,000. Cram & Ferguson, 15 Beacon St., Boston, archts.

Mich., Detroit — Mercantile — Frank & Seder, c/o Smith, Hinchman & Grylls, archts., 710 Washington Arcade, receiving bids building 12 story, 60 x 100 ft., rein.-con., brick and steel rein.-con. flooring, concrete foundation, on Woodward Ave. Noted May 20.

Buildings (Continued)

Mich., Detroit—Schools—Until Oct. 22, by Bd. Educ., 50 Bway., furnishing labor and material building Houghton Addition, on Abbott St., cost $215,000; Marxhausen School, on Cadillac Ave. between Warren and Moffat Aves., $200,000; Majeska School Addition, on Lyman Ave. between St. Aubin and Duboise Sts., $200,000; Greenfield Park School, on Longwood Ave. between Parkhurst and Louisiana Aves., $60,000. All to be 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. Malcolmson, Higginbotham & Palmer, 404 Moffat Bldg., archts.

Minn., Hackensack—School—Until Oct. 18, by R. F. Ross, clk. Cass Co. School Dist. (Walker), building 2 story, 102 x 107 ft., rein.-con., brick and steel, rein.con. flooring, concrete foundation, here. Lukenberg, Kaplan & Martin, 617 Enright Bldg., Minneapolis, archts.

Cal., Hollister—School—Grammar School Dist. receiving bids building 1 story, 8 room, frame, terra cotta and brick. About $100,000. W. H. Weeks, 75 Post St., San Francisco, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., North Stratford**—Housing—New Hampshire Stave & Heading Mill let contract building 2 story, frame houses for workmen, to Snare & Triest Co., 8 West 40th St., New York City. Cost to exceed $100,000.

★**Mass., Boston**—Bank and Office—Natl. Shawmut Bank, 40 Water St., let contract building 8 story, rein.-con. brick and steel addition, rein.-con. flooring, concrete foundation, on Devonshire St., to L. P. Soule & Son, 80 Boylston St. About $1,000,000.

★**Mass., Brookline**—Hotel—J. J. Smith, archt., 1106 Old South Bldg., Boston, will build 8 story, 136 x 254 ft. rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on Kent and Beacon Sts. About $1,250,000. Owners name withheld. Work will be done by day labor under supervision of architect.

★**Mass., Brookline**—Hotel—J. J. Smith, archt., 1106 Old South Bldg., Boston, will build 8 story, 120 x 238 ft. rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on Prang St. and Huntington Ave. About $1,000,000. Owners name withheld. Work will be done by day labor under supervision of architect.

★**Mass., Peabody**—School—Bd. Educ. let contract building 2 story, 100 x 100 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Washington St., to C. S. Cunningham & Sons Constr. Co., 80 Boylston St., Boston. About $102,000. Noted Sept. 30.

Conn., New Britain—School—Bd. Educ. received bids building 2 story, 60 x 240 ft. with 56 x 70 ft. ell, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Tremont St., from Eastern Eng. & Constr. Co., 886 Main St., Bridgeport, $330,000; Torrington Bldg. Co. 197 Water St., Torrington, $373,487; T. W. Crowe, 64 Grove Hill St., $398,122. Noted Sept. 23.

★**N. Y., Brooklyn**—Bank Home Savings Bank, c/o G. Erda, archt. and engr., 826 Manhattan Ave., let contract building 2 story, 50 x 60 ft., brick and stone, brick foundation, on Manhattan Ave., to W. P. McGarry, 292 Freeman St., Long Island City. About $175,000. Noted June 10.

N. Y., Brooklyn—Dormitory—Dept. Pub. Welfare, Municipal Bldg., New York City, received bids Oct. 8, building and completing general contract, electrical work, domestic hot water generator, etc., for dormitory in Kings Co. Hospital, here, from Nugent Constr. Co., 505 5th Ave., New York City, $286,000; W. Werner Eng. Co., 50 Court St., $295,997. Noted Sept. 30.

★**N. Y., Brooklyn**—Theatre—M. Livcoti, c/o C. P. Cannella, archt., 1163 Herkimer St., will build 1 story, brick, steel and stone brick foundation, on Slocum St. and Myrtle Ave. About $175,000. Work will be done by day labor.

★**N. Y., Freeport**—Theatre—South shore Constr. Co., 5 Columbus Circle, New York City, will build brick and stone, brick foundation, here. About $200,000. Work will be done by day labor.

★**N. Y., New York**—Synagogue—Congregation Bnai Israel of Washington Heights, 535 West 148th St., will build 1 story, 75 x 100 ft., brick and stone, brick foundation, at 617 West 149th St. About $200,000. Work will be done by day labor. Noted Jan. 1.

★**N. Y., Rockville Center**—Theatre—Southshore Constr. Co., 5 Columbus Circle, New York City, will build brick and stone, brick foundation, here. About $100,000. Work will be done by day labor.

★**N. Y., Syracuse**—Pavilion—Bd. Supervs. Onondaga Co. let contract buildng Childrens Pavilion, at Onondaga Tuberculosis Sanatorium, to Shane Constr. Co., Herald Bldg., $111,534. Noted Sept. 2.

★**N. Y., Valley Stream**—Theatre—Southshore Constr. Co., 5 Columbus Circle, New York City, will build brick and stone, brick foundation, here. About $100,000. Work will be done by day labor.

Pa., Ebensburg — Court House—Comrs. Cambria Co. received bids Sept. 27, building brick and steel addition and dome, from W. H. Fissell & Co., 1328 Bway., New York City, (a) face bid of $492,727, (b) provision for 77 alternatives, at additional cost of $150,000, (c) cost plus 15 per cent. Noted Sept. 9.

★**Pa., Johnstown** — Bank — Union Natl. Bank, 141 Franklin St., let contract altering 3 story, 50 x 120 ft., rein.-con., steel, stone and marble, rein.-con. flooring, to Gardner Constr. Co., Moxham St. About $100,000.

★**Pa., Sharon** — Theatre — Columbia Amusement Co., c/o A. W. Johnson, archt. and engr., 469 5th Ave., New York City, let contract building brick and stone, brick foundation, here, to W. M. Sutherland Bldg. & Contg. Co., Syndicate Trust Bldg., St. Louis, Mo. About $200,000. Noted July 22.

★**Md., Baltimore** — Theatre — Douglas Amusement Co. c/o Lachman & Murphy, archts., Drexel Bldg., Phila., let contract building 1 story, 70 x 145 ft., concrete, brick and steel, concrete foundation, at 1317 Pennsylvania Ave., here, to W. K. Richards, 1317 Pennsylvania Ave., Phila. About $100,000. Noted Sept. 16.

★**D. C., Wash.**—Church—Epworth Methodist Episcopal Church let contract rebuilding brick and stone, to A. L. Smith, Woodward Bldg. About $150,000.

★**S. C., Anderson**—Bank—Citizen Natl. Bank let contract building 11 story, rein.-con., steel and white brick, to A. Struck Co., Garden and Chestnut Sts., Louisville, Ky. About $250,000. Noted July 22.

O., Canton — School — C. Lane, clk. Bd. Educ. received bids building 3 story, 135 x 160 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Belden Ave., from G. Whike Co., Canton, $264,200; M. Bross, Canton, $305,967. Noted Sept. 9.

★**Mich., Detroit**—Schools—Bd. Educ., 50 Bway., let contract building addition to (a) Thirkell School, (b) Lincoln School, (1) masonry, (2) carpentry, (3) heating, ventilating and plumbing, both to be 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, to J. Bollin Co., 906 Bellevue Ave., (a1) $94,700; H. M. Martens Co., 221 Moffat Bldg., (a2) $32,100; O'Connor Bros., 179 Shelby St., (a3) $58,763, (b3) $23,745; O. Misch Co., 828 Chamber of Commerce Bldg., (b1) $47,990; Harcus & Co., 774 Russell St., (b2) $14,237. Noted Aug. 26.

★**Wis., Milwaukee** — Office — Wisconsin Food Products Co., Port Washington Rd., let contract building 3 story, 80 x 200 ft., rein-con. and brick, rein.-con. flooring, concrete foundation, to W. Oeflein, 86 Michigan St.

★**Wis., Phillips**—Depot, etc.—Minneapolis, St. Paul & Sault Ste. Marie R.R., 204 Clark St., Chicago, let general contract building 1½ story, 60 x 150 ft., brick, rein.-con. and tile depot and warehouse, brick foundation, to Concrete Constr. & Mfg. Co., Withee. About $100,000. Noted Sept. 9.

Minn., Minneapolis — Chemistry — State Bd., Control, Capitol Bldg., St. Paul, received bids constructing 3 story, rein.-con., brick, steel and stone addition to chemistry building, on State University campus here, from J. and W. A. Elliott, 906 Lumber Exch., $239,416; S. M. Klarquist & Sons, 750 Security Bldg., $246,297; R. J. Keating, 3030 Columbus Ave., $246,798; heating, from Hineline & Co., 625 3rd Ave. S., $85,000; Hamline Heating & Plumbing Co., 683 Snelling Ave., St. Paul, $85,107; Archambo Heating & Plumbing Co., 315 5th Ave. S., $85,598.

★**Minn., Minneapolis**—School—Bd. Educ let general contract building addition to Clinton School on Clinton Ave., and 28th St., 2 story, 58 x 158 ft. rein.-con., brick and stone, to S. M. Klarquist & Son, 747 Security Bldg., $169,984; heating and ventilating, to Bjorkman Bros., 712 South 10th St., $41,399. Noted Sept. 30.

★**Mo., St. Louis**—Office—Ralston Purina Co., 8th and Gratiot Sts., let contract building 4 story, 52 x 83 ft., brick and concrete, at 827 South 8th St., to Fruin-Colton Constr. Co., Laclede Bldg. About $100,000.

Federal Government Work

PROPOSED WORK

N. Y., Brooklyn — Concrete roads, etc.—Spec. 4310—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build concrete roads and sidewalks, here.

N. Y., New York—Wood Block Paving—Spec. 409—Bureau Yards & Docks, Navy Dept., Wash. D. C., plans to pave, here.

N. Y., Sayville — Radio Quarters—Spec. 4311—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

W. Va., South Charleston — Sub-Station Switchboards—Spec. 4308—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install, here.

Ala., Mobile—Coal Terminal—U. S. Army Engineers, Wash., D. C., plan to build coal terminal, with 40,000 ton bin capacity, 20,000 ton ore capacity and 750 ton loading capacity per hour, at Hunter-Benn wharf, here. About $500,000.

Wash., Port Angeles — Radio Compass Building — Spec. 4304 — Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

Wash., Tatoosh—Double Quarters—Spec. 4305—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Cal., San Diego — Refrigerating Equipment—Spec. 4303—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install, here.

BIDS DESIRED

N. Y., Buffalo—Registry Room—Until Oct. 21, by Treas. Dept., Wash., D. C., remodeling registry room in post office, here, J. A. Wetmore, superv. archt.

D. C., Wash.—Pumping Facilities—Until Nov. 10, at U. S. Engineers Office, 305 Southern Bldg., furnishing and installing electrically driven centrifugal pumps, motor generator sets, etc.; advertised in this issue. Noted Sept. 16.

D. C., Wash.—Cable Hangars—Until Oct. 30, by Chief of Engineers, U. S. Army, Room 2717, Munitions Bldg., furnishing 3,750 cable hangars, complete with stools.

D. C., Wash.—Turret Foundations.—Spec. 4295—Until Oct. 20, by Bureau Yards & Docks, Navy Dept., building 3 turret foundations; $10 deposit required for plans and spec.

Va., Ft. Myer—Dry Cleaning Building—Until Oct. 18, at office of Chief of 1st Dist. Constr. Serv., Quartermaster's Corps, Room 2038, War Trade Bldg., 20th and B Sts. N.W., Wash., D. C., construction, here.

Va., Norfolk—Quay Wall—Spec. 4306—Until Oct. 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building 550 ft. quay wall, etc., at Navy Yard here; advertised in this issue.

Miss., Vicksburg — Steel Barges — Until Nov. 5, by 3d Mississippi River Dist., P. O. Box 404, building 6 steel barges.

H. T., Pearl Harbor—Ordnance Buildings—Spec. 4168—Until Nov. 17, by Bureau Yards & Docks, Navy Yard, Wash., D. C., Navy Yard, Mare Island, Cal., and Naval Station, here, constructing ordnance buildings, at Naval Ammunition Depot, Kuahua, here. C. W. Parks, ch.; advertised in this issue. Noted April 15, under "Kuahua."

H. T., Hawaii—Marine Railway—Spec. 4254—Until Nov. 17, by Bureau Yards & Docks, Navy Dept., Wash., D. C., Navy Yard, Mare Island, Cal., and Naval Station, here, completing marine railway here. C. W. Parks, ch.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Chelsea—Lighting System—Spec. 4281—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Oct. 6 constructing lighting system for hospital grounds and altering lighting system in main hospital building at U. S. Naval Hospital here, (1) work complete, from G. E. Eng. Co., 22 Leight St., New York City, (1) $15,759 (120 days); Mack & Mack, 103 Park Ave., New York City, (1) $18,313 (240 days); Barnes Poke Electric Co., 93 Federal St., Boston, (1) $26,981 (100 days). Noted Sept. 3.

Federal Government Work (Continued)

N. Y., Brooklyn — Underground Electric & Power Distributing System—Spec. 4286—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids building at Naval Hospital here (1) work complete, from G. E. Eng. Co., 22 Leight St., New York City, (1) $28,435 (150 days), (2) $0.45, (3a) $2.28, (3b) $1.51, (3c) $1.19, (3d) $0.91, (3e) $0.74, (3f) $0.66, (3g) $0.54, (3h) $0.56, (3i) $0.28, (3j) $0.27, (3k) $0.24; H. Alexander, 20 West 34th St., New York City, (1) $31,530, (2) $1.97, (3a) $3.31, (3b) $2.05, (3c) $1.65, (3d) $1.10, (3e) $1.02, (3f) $0.95, (3g) $0.73, (3h) $0.50, (3i) $0.35, (3j) $0.30, (3k) $0.26 (100 days); Lord Electric Co., 105 West 40th St., New York City, (1) $31,760 (120 days). Noted Sept. 9.

Pa., Pittsburgh—Lavatory—Treas. Dept., at office of J. A. Wetmore, superv. archt., Wash., D. C., received bids buildings in U. S. Post Office, here, from G. H. Soffel, 425 2nd Ave., $17,458; Weldon & Kelly, 427 4th Ave., $17,865; S. W. Rittenhouse, 1316 Harvard St., N. W., Wash., D. C., $18,369.

D. C., Wash.—Altering Building—Treas. Dept., Wash., D. C., received bids Sept. 30, altering building on northeast corner 15th and E Sts., N. W., (1) building closed to public, (2) building not closed to public, from Skinker & Garrett, 2626 Woodley Pl. (2) $14,000; W. E. Mooney, Evans Bldg., (1) $14,336; J. Trout Constr. Co., Wash., (2) $15,700. Noted July 15.

★**D. C., Wash.** — Electrical Traveling Cranes — Spec. 4239 — Bureau Yards & Docks, Navy Dept., let contract building electric traveling cranes for shipbuilding slips at Navy Yards at Norfolk, Va., Phila., Pa., and New York, N. Y., to Niles-Bement-Pond Co., 111 Bway., New York City, $225,-000 (180 days). Noted Sept. 30.

★**Va., Hampton Roads** — Drainage System, etc. — Spec. 4221—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building concrete roads and drainage system at Naval Operating Base here to Atlantic Bitulithic Co., Virginia R.R. Power Bldg., Richmond, $112,708 (150 days). Noted Oct. 7.

★**Va., Quantico** — Water Supply Main — Spec. 4200—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building cast iron water supply main here to Wingo & Deaner, Box 816, Richmond, $123,595 (200 days). Noted Sept. 30.

N. C., Wilmington—Freight Elevator—Treas. Dept., Wash., D. C., received bids Sept. 30, building freight elevator at Post Office, here, from Otis Elevator Co., Metropolitan Bank Bldg., Wash., D. C., $6,168; A. B. See Elevator Co., Real Estate Trust Bldg., Wash., D. C., $7,300; Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave., Cincinnati, O., $8,500.

N. C., Wilmington—Remodeling Post Office—Treas. Dept., Wash., D. C., received bids Sept. 30, remodeling Post Office (except lift), here, from E. E. Garber, 917 Deleware Ave., South Bethlehem, Pa., $7,000; Original Cabinet Co., Niles, Mich., $12,050; G. E. Wright, Inc., Chicago, Ill., $13,465. Noted Sept. 16.

★**Fla., Jacksonville**—Pontoon Catamarans —U. S. Engineer, War Dept., Wash., D. C., let contract building 15 pontoon catamarans to Central Iron Wks. Co., Inc., Hagerstown, Md., $19,605. Noted Aug. 26.

★**Cal., Mare Island**—Mechanics Shop, etc. —Spec. 4127—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building mechanic shop, filling house, etc., here, to Cahill Vensano Co., 110 Sutter St., San Francisco, $109,280 (197 days). Noted Sept. 2.

Cal., San Diego—Elevators—Spec. 4285—Bureau Yards & Docks, Navy Dept., Wash., D. C., received only bid Oct. 6 furnishing and installing in fleet supply storehouse, at Naval Base here, (1) work complete, from Otis Elevator Co., Metropolitan Bank Bldg., Wash., D. C., (1) $81,530 (210 days), (2) $11,173, (200 days)), (3) $31,382 (190 days), (4) $472, (5) $212. Noted Sept. 30.

Alaska — Bridge Work — Alaska Eng. Comn., Bell St. Dock, Seattle, Wash., received bids building 570 ft. steel bridge over Riley Creek, on route of Alaska R.R., north approach to have 350 ft. framed timber trestle, bridge will have total length of 920 ft., including north timber approach, from McClintic-Marshall Co., Seattle; Northwest Trading Co., L. C. Smith Bldg., Seattle; Omaha Structural Steel Wks., 48th and Leavenworth Sts., Omaha, Neb.; Pennsylvania Bridge Co., Beaver Falls Pa.; U. S. Steel Products Co, Seattle. About $100,000.

Miscellaneous

PROPOSED WORK

Subway—Rochester, N. Y.—New York Central R.R., Grand Central Terminal, New York City, receives bids about Oct. 22, building subway in Brown St., here. About $500,000. Cost to be borne by railroad and city. T. W. Rau, asst. ch. engr.

Seawall — Bay St. Louis, Miss. — Bd. Comrs. retained H. D. Shaw, engr., Gulfport, to prepare plans for rein.-con. seawall along city front. About $100,000.

Fire Alarm System — Shreveport, La. — City voted $25,000 bonds to build fire alarm system.

Parks and Playgrounds—Shreveport, La. —City voted $250,000 bonds to build parks and playgrounds.

Driving Cluster and Fender Piling—Milwaukee, Wis.—City soon receives bids driving cluster and fender piling at various bridges. About $25,000. D. M. Keith, city engr.

Coaling Stations — Houston, Tex. — City plans election to vote on $75,000 bonds to build coaling stations for ships.

Wharves — Houston, Tex. — City plans election to vote on $1,250,000 bonds to build wharves.

BIDS DESIRED

Heating and Ventilating Apparatus, etc. —Long Island City, N. Y.—Until Oct. 18, by C. B. J. Snyder, supt. School Bldg., Municipal Bldg., New York City, installing heating and ventilating and temperature apparatus, electric passenger elevator, together with additions and repairs to Bryant High School, on Wilbur Ave. between Acadamy and Radde Sts.

Pavilions—Randalls Island, N. Y. (New York P. O.)—Until Oct. 21, by Dept. Pub. Welfare, Municipal Bldg., New York City, furnishing labor and material altering and repairing Tredgold and Nightingale Pavilions, here. Noted Sept. 30.

Foundation—Rochester, N. Y.—Until Oct. 29, by E. S. Walsh, supt. Pub. Wks., Capitol, Albany, building foundation of proposed freight terminal, here (Contr. 229); advertised in this issue.

Foundation—Milwaukee, Wis.—Until Oct. 21, by Bd. Industrial Educ., 62 Mason St., building concrete foundation for 2nd unit of continuation school, 7 story, 145 x 268 ft., brick, rein.-con. and steel, on 6th and Prairie Sts. Van Ryn & De Gelleke, Caswell Blk., archts. and engrs.

Stone Crusher, etc. — Davenport, Ia. — Western States Portland Cement Co. receiving bids for Gates stone crusher, side dump cars and similar special machinery for plant at Nuttings Sta., near here.

White Way System—Cloquet, Minn.— Until Oct. 18, by city, installing white way system on Bway. About $25,000.

Macadam and Gravel—Clayton, Mo.— Until Oct. 20, by W. Elbring, highway engr., furnishing macadam and gravel for repairing highways during year in St. Louis Co. Material to be furnished as needed on yearly contract at so much per cubic yard.

Paving Plant—London, Ont.—Until Oct. 21, by Chairman and Members, No. 2 Com., for supply and erection of asphalt paving plant. H. A. Brazier, city. engr.; advertised in this issue.

Bucket — Toronto, Ont.—Canadian Allis-Chalmers Ltd., 212 King St. W., receiving bids for one 1 yd. single hook grab bucket.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Dam — Lincoln, N. H.** — Parker-Young Co., Lisbon, let contract building rein.-con. dam at plant on East Branch River here to Osgood Constr. Co., 25 East Hollis St., Nashua. About $25,000.

★**Baseball Field, etc.—Boston, Mass.**— Park and Recreation Dept., 33 Beacon St., let contract grading baseball field on Boston Common, also resurfacing walk over Common from West St. to field, to J. C. Coleman & Sons Co., 1620 Tremont St., Roxbury, $55,660.

Laundry Equipment, etc. — Binghamton, N. Y.—State Hospital Comn., Capitol, Albany, received bids Oct. 6 furnishing laundry equipment for State Hospital here from Amer. Laundry Mchy. Co., 134 West 37th St., New York City, $11,910, Troy Laundry Mchy. Co., 133 Centre St., New York City, $11,995; renewing electric wiring and extending electric lines, from Mack & Mack, 103 Park Ave., New York City, $13,513, Alpha Electric Co., 124 Hudson Ave., Albany, $19,411, Wheeler-Greene Electric Co., 29 St. Paul St., Rochester, $19,896. Noted Sept. 16.

Heating Apparatus, etc.—Brooklyn, N. Y. —C. B. J. Snyder, supt. School Bldgs., New York City, received bids Oct. 4 installing (1) heating and ventilating apparatus, (2) temperature apparatus in (a) P. S. 73, (b) P. S. 144, from Tiran, Mahaney & Monroe, (a1) $115,375; Gillis & Geoghegan, 537 West Bway., New York City, (a1) $120,000, (b1) $114,793; Wells & Newton, Ave. B and 17th St., New York City, (a1) $128,400, (b1) $134,400; D. J. Rice, 405 Lexington Ave., New York City, (b1) $112,-894; Natl. Regulator Co., 166 Lexington Ave., New York City, (a2) $4,000, (b2) $4,850; Johnson Serv. Co., 123 East 27th St., New York City, (a2) $4,139, (b2) $5,-320; Bishop & Babcock, (a2) $5,200.

★**Jib Cranes—Buffalo, N. Y.**—Dept. Pub. Wks., Albany, let contract furnishing 3 ton half-arch revolving jib traveling electric cranes for Erie Basin Terminal, here (Terminal Contr. 114), to Heyl & Patterson, Inc., 90 West St., New York City. Noted Sept. 16.

Electric Generator Set, etc.—Marcy, N. Y. —State Hospital Comn., Capitol, Albany, received bids Oct. 6 furnishing electric generator and underground electric service connections for Utica State Hospital here from Mack & Mack, 103 Park Ave., New York City, $23,513; Langdon & Hughes, 233 Elizabeth St., Utica, $24,200; Hughes Electric Corp., 413 South Clinton St., Syracuse, $25,457. Noted Sept. 16.

Tunnels, etc.—Marcy, N. Y.—State Hospital Comn., Capitol, Albany, received bids Oct. 6, building heating tunnels and furnishing piping for steam, etc., at Utica State Hospital here, involving (a) removing and rough grading excess excavated materials, (b) 12,500 cu.yd. earth excav. and backfill to 5½ ft. below present grade, (c) 400 cu.yd. at greater depth than 5½ ft., (d) 650 cu.yd. rock excav. and backfill within 5½ ft. of present grade, (e) 13,800 cu.yd. from 5½ to 12 ft. below, (f) 9,170 cu.yd. from more than 12 ft. below, from M. Kantrowitz, Market St., Albany, (a) $516,600, (b) $2.15, (c) $3.20, (d) $6.20, (e) $6.60, (f) $7.10; P. Keeler Bldg. Co., 425 Orange St., Albany, (a) $686,000, (b) $2.45, (c) $2.45, (d) $6.20 (e) $6.20, (f) $6.20. Noted Sept. 16.

★**Motor Trucks, etc.—New York, N. Y.**— Bd. Purchase, Room 526, Municipal Bldg., let contract furnishing and delivering motor trucks, wrecking cars, etc., to White Co., Thompson St., Long Island City, $18,360. Noted Sept. 16.

Limestone—New York, N. Y.—H. H. Curran, pres. Manhattan Boro., received bids Oct. 8, furnishing and delivering 2,000 tons limestone, from R. M. Soper, 1476 Bway., $20,840; New York Trap Rock Corp., 101 Park Ave., $21,400. Noted Sept. 30.

★**Heating and Ventilating System — Wash., D. C.**—Dist. Comrs., Dist. Bldg., let contract installing heating and ventilating system in Petworth School to Federal Heating Co., 310 13th St., N.W., $36,938. Noted Aug. 19.

★**Electric Equipment—Cleveland, O.**— City let contract furnishing 1,888 electric meters, to Westinghouse Electric Mfg. Co., West 54th St., $24,000; 100,000 lb. weatherproof copper wire, to Illinois Wire & Cable Co., 111 West Monroe St., Chicago, $26,500. Noted Sept. 2.

★**Pipe Cedarburg, Wis.**—City let contract furnishing 800 tons 4-10 in. Class "B" c.i. pipe, to Amer. Cast Iron Pipe Co., 712 Plymouth Bldg., Minneapolis, Minn., $51,-638. Noted Sept. 23.

★**Culverts—St. Joseph, Mo.**—State Highway Dept., St. Joseph, let contract building culverts on 20.02 mi. Sect. B, St. Joseph-Atchison Rd., Federal Aid Project 49, Buchanan Co., to Buchanan Co., St. Joseph, $29,657.

★**Steam Heating System—Wichita Falls, Tex.**—State Bd. Control, Austin, let contract installing and connecting complete steam heating system, at buildings in Northwest Texas Insane Asylum, here, to Kinnison Bros., 311-313 North Austin St., Dallas, $69,860.

★**Sand—Welland, Ont.**—Dept. Railways & Canals, Ottawa, let contract furnishing 125,000 cu.yd. coarse sand to Natl. Sand & Material Co., Ltd., Welland, $0.90 per cu.yd.

OFFICIAL PROPOSALS

Bids: Oct. 29.

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS
Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Friday, October 29th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, as follows:

TERMINAL CONTRACT No. 26-A

For completing the terminal at Rouses Point.

Contract plant sheets 1 and 2.

The work shall be completed on or before July 1st, 1921.

TERMINAL CONTRACT No. 229

For constructing the foundation of the proposed terminal freighthouse at Rochester. Contract plans, sheets 1 and 2.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Supt. of Public Works.

Bids: Oct. 27.

Construction of State Aid Highways in Sussex County and Furnishing Machine for Testing Materials

Dover, Del.

Sealed proposals will be received by the State Highway Department, at its office, Dover, Delaware, until 2 o'clock p.m., October 27, 1920, and at that time and place publicly opened, for the construction of State Aid Highways in Sussex County, involving the following approximate quantities:

CONTRACT ES-13, 6.57 MILES
Laurel to Asbury Church

4.5 acres clearing and grubbing
0.5 acres clearing
17,500 cu.yd. excavation
17,000 cu.yd. borrow
350 cu.yd. cement concrete, Class "A"
325 cu.yd. cement concrete, Class "B"
18,000 lb. steel reinforcement
560 lin.ft. 15 in. reinforced concrete pipe
260 lin.ft. 18 in. reinforced concrete pipe
460 lin.ft. 24 in. reinforced concrete pipe
62 lin.ft. 30 in. reinforced concrete pipe
32 lin.ft. 36 in. reinforced concrete pipe
180 lin.ft. relaid pipe, 18 in. and under
40 lin.ft. relaid pipe, over 18 in.
1,300 lin.ft. timber piling
2,000 ft. B. M. sheet piling (left in place)

This work to be completed on or before March 31, 1921.

CONTRACT ES-14 .93 MILES
Through Georgetown

1,150 cu.yd excavation
1,400 cu.yd. borrow
1,770 cu.yd. cement concrete pavement
45 cu.yd. cement concrete, Class "A"
900 lb. steel reinforcement
3 catchbasins
5 park grates
150 lin.ft. 15 in. reinforced concrete pipe
120 lin.ft. 18 in. reinforced concrete pipe
80 lin.ft. relaid pipe, 18 in. and under
650 lin.ft. vitrified tile underdrain

This work to be completed on or before May 30, 1921.

TESTING MACHINE

The furnishing of one (1) Testing Machine, equal to Universal, 3 screw type, 100,000 lb. capacity, equipped with 3 hp. 220 volt A.C. Motor. This machine to be furnished on or before November 30, 1920.

Performance of contract shall commence within ten (10) days after execution of the contract.

Monthly payments will be made for 90 per cent of the construction completed each month.

Bidders must submit proposals upon forms provided by the Department.

Each proposal must be accompanied by a surety bond, certified check or money to the amount of at least ten (10) per cent of the total amount of the proposal.

The envelope containing the proposal must be marked: "Proposal for the Construction of a State Aid Highway under Contract No. CS-13 or CS-14 or (Furnishing 100,000 lb. Testing Machine)."

The contract will be awarded or rejected within twenty (20) days from the date of opening proposals.

The right is reserved to reject any or all bids.

Detailed plans may be seen, and index plans and specifications may be obtained upon deposit of ten dollars ($10.00) which amount will be refunded upon return of plans and specifications in good condition at the office of

STATE HIGHWAY DEPARTMENT
DOVER, DELAWARE
CHAS. M. UPHAM, Chief Engineer.

Bids: Oct. 18.

Reconstruction of Rumson Road

Shrewsbury, N. J.

Notice is hereby given that sealed bids will be received by the Board of Chosen Freeholders of the County of Monmouth for the reconstruction of the Rumson Road (Sections 1-A and 1-B) in Shrewsbury Township and the Borough of Rumson, Monmouth County, New Jersey, and opened and read in public at rooms of said Board, Court House, Freehold, N. J., on October 18th, 1920, at 11 a.m. (Standard time.)

Drawings and specifications for the proposed work, prepared by George D. Cooper, County Engineer, have been filed in the office of said Engineer, 60 Broad Street, Red Bank, New Jersey, and may be inspected by prospective bidders during business hours. The standard proposal form will be furnished on application to the Engineer.

Bids must be made on the standard proposal form in the manner designated therein and required by the specifications; must be enclosed in sealed envelopes, bearing the name and address of the bidder and name of proposed work on the outside, addressed to the Board of Chosen Freeholders of the County of Monmouth, and must be accompanied by a certified check for a sum equal to ten (10) per cent of the amount bid on the work, payable to the order of the Collector of the County of Monmouth, and a surety company certificate stating that said surety company will provide the bidder with the required bond, and must be delivered at the place and on the hour above named.

The Board of Chosen Freeholders of the County of Monmouth reserves the right to reject any or all bids if deemed to the best interests of the County so to do.

By order of the Board of Chosen Freeholders of the County of Monmouth.

WILLIAM M. BERGEN,
Director.

Attest:
CHARLES E. CLOSE,
Clerk.

Bids: Oct. 25.

Water Works Improvements

Ventnor City, N. J.

Sealed proposals for additions and alterations to the waterworks, consisting of a new building, boiler, reservoir, well, pressure tanks and various changes, will be received by the Common Council of Ventnor City, N. J., when called for by the President during a meeting of that body to be held October 25th, 1920, at 8 p.m., in the City Hall, Ventnor City, N. J.

No proposal will be received or considered unless accompanied by a certified check drawn to the order of G. F. Wingate, City Treasurer, for the sum of two thousand dollars.

Surety company bond in the sum of one-half the contract price will be required.

Plans and specifications may be seen at the office of W. I. Risley, Civil Engineer, Guarantee Trust Building, Atlantic City, N. J. A deposit of ten dollars will be required for plans and specifications taken from the office, which will be refunded upon the return of the plans and specifications in good condition within ten days after the award of the contract.

The right is reserved to reject any or all bids.

Dated Sept. 30th, 1920.

JAS. T. G. HAND,
City Clerk.

Bids: Nov. 1.

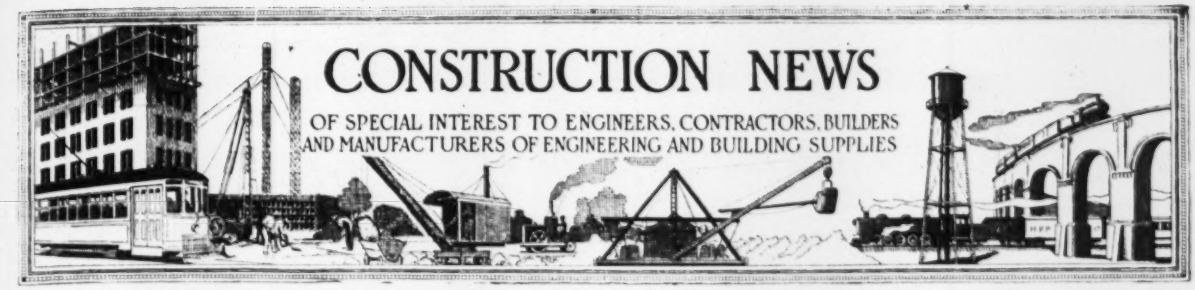
Dredging.

Tampa, Fla.

The Board of Port Commissioners of Tampa, Florida, will receive sealed proposals at its office on the 8th floor of the City Hall, Tampa, Florida, until 3 o'clock p.m., Monday, November 1st, 1920, for the dredging required for its terminal construction on Ybor Channel, at which time the proposals will be publicly opened and read.

Further information on application.

S. M. SPARKMAN,
President.
DR. L. A. BIZE.



PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 25	Ventnor City, N. J. Adv. Oct. 7 to 21.	Oct. 7
Oct. 25	Garfield Heights (Cleveland P. O.), O.	Oct. 14
Oct. 25	Terrell, Tex.	Oct. 14
Oct. 25	Normal, Ill. Adv. Oct 14 and 21.	Oct. 21
Oct 26	Portis, Kan.	Oct. 21
Oct. 27	South Bend, Ind.	Oct. 21
Oct 28	Newark, N J. Adv. Oct. 7 to 21.	Oct. 7
Nov 1	Defiance, O. Adv Oct 14 and 21.	Oct. 21

SEWERS

Oct 25	Garfield Heights (Cleveland P. O.), O.	Oct. 14
Oct 28	Stockton, Kan.	Oct. 21
Oct. 29	Detroit, Mich.	Oct. 14
Oct. 30	Yorkville, O.	Sept. 23
Nov. 1	East Gary, Ind.	Oct. 21
Nov. 8	Syracuse, N. Y. Adv. Oct. 14 and 21.	Oct. 21
Nov 9	Rayville, La.	Oct. 21

BRIDGES

Oct. 25	Missouri	Oct. 7
Oct. 29	Laredo, Tex.	Oct. 21
Oct 30	Detroit, Mich Adv. Oct. 21.	Oct. 21
Nov. 1	Jena, La.	Oct. 21
Nov 3	Chatsworth, Ga.	Oct. 21
Nov. 3	Manning, S. C.	Oct. 21
Nov. 4	Ft. Worth, Tex.	Oct. 21
Nov. 5	Detroit, Mich. Adv. Oct 14 and 21.	Oct. 21
Nov. 5	Norfolk, Va. Adv. Oct. 14 and 21.	Oct. 21

STREETS AND ROADS

Oct 25	Missouri	Oct. 7
Oct. 25	Missouri	Oct. 14
Oct. 25	Garfield Heights (Cleveland P. O.), O.	Oct. 14
Oct. 25	Houston, Tex.	Oct. 14
Oct 25	Michigan	Oct. 14
Oct 25	South Dakota	Oct. 21
Oct 26	Ft. Wayne, Ind.	Oct. 7
Oct 26	South Dakota	Oct. 21
Oct. 26	Ohio	Oct. 21
Oct. 27	Indiana	Oct. 7
Oct. 27	Delaware	Oct. 7
Oct. 27	South Dakota	Oct. 21
Oct. 27	Brooklyn, N. Y.	Oct. 21
Oct. 28	Siloam Springs, Ark.	Sept. 30
Oct. 28	Indiana	Oct. 21
Oct. 28	Cameron, Tex.	Oct. 21
Oct. 29	New York Adv. Oct. 21.	Oct. 21
Oct. 29	Long Island Cty. N. Y.	Oct. 21
Oct 29	Newaygo, Mich.	Oct. 21
Oct 29	Harrisville, Mich.	Oct. 21
Oct. 30	Indiana	Oct. 7
Oct. 30	Indiana	Oct. 21
Nov. 1	Indiana	Oct. 21
Nov. 3	Visalia, Cal.	Oct. 21
Nov. 3	Chatsworth, Ga.	Oct. 21
Nov. 4	Ft. Worth, Tex.	Oct. 21
Nov. 6	Junction City, Kan.	Oct 14
Nov. 6	Lawrence, Kans.	Oct. 21
Nov. 8	Arcadia, La.	Oct. 21
Nov. 8	Anahuac, Tex.	Oct. 21
Nov. 8	Pittsboro, N C.	Oct. 21
Nov. 10	Alabama	Oct. 21
Nov 11	Fredericksburg, Tex.	Oct. 21
Nov. 12	Salina, Kans.	Oct. 21
Nov. 12	Birmingham, Ala.	Oct. 21
Nov. 15	Oskaloosa, aKn.	Oct. 21
Nov. 16	Lyon, Kan.	Oct. 14
Jan. 5	Colorado Springs, Col.	Oct. 21

EXCAVATION AND DREDGING

Oct. 25	Manawa, Wis.	Oct. 14
Oct. 25	Waupaca, Wis.	Oct. 21
Oct. 26	Rochelle, Ill.	Oct. 14
Oct. 26	Marengo, Ia.	Oct. 14
Oct. 26	Geneseo, Ill. Adv. Oct. 14 and 21.	Oct. 14
Oct. 26	New York, N. Y.	Oct. 21
Oct. 27	Adel, Ia.	Oct 21
Oct. 28	Crookston, Minn.	Oct. 21
Nov. 1	Tampa, Fla. Adv. Sept. 30 to Oct. 21.	Oct. 7
Nov. 4	Sterling, Ill. Adv. Oct. 21.	Oct. 21
Nov. 9	Norwalk, O.	Oct. 21

INDUSTRIAL WORKS

Oct. 27	Hoboken, N. J.	Oct. 21
Oct. 29	West New Brighton, S. I., N. Y.	Oct. 21
Nov. 1	Webb City, Mo.	Sept. 16
Nov. 1	Augusta, Ga	Oct. 21

BUILDINGS

Oct. 25	Scranton, Pa.	Oct. 7
Oct. 25	Oil City, Pa.	Oct. 14
Oct. 26	Phila., Pa.	Oct. 21
Oct. 26	Great Neck, N. Y.	Oct. 21
Oct. 27	Tenafly, N J	Oct. 7
Oct. 27	Ft. Dodge, Pa.	Oct. 7
Oct. 27	River Rouge, Mich.	Oct. 21
Oct. 28	Minneapolis, Minn.	Oct. 21
eOt. 29	Pocahontas, Ia.	Oct. 21
Oct. 29	Cheyenne, Wyo.	Oct. 21
Nov. 1	East Conemaugh (Johnstown P O.), Pa.	Oct. 21
Dec. 6	Ossining, N Y.	Oct. 21
Dec. 10	Brooklyn, N. Y.	Oct. 21
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Cortland, N Y.	Oct. 21

FEDERAL GOVERNMENT WORK

Oct. 23	Foundations and Coping for Reflecting Pool — Wash., D. C. Adv. Sept. 30 to Oct. 21.	Sept. 30
Oct. 25	Hospital — West Point, N. Y. Adv. Sept. 30 to Oct. 21.	Sept. 30
Oct. 25	Dredging—Providence, R. I. Adv. Sept. 30 to Oct. 21.	Oct. 7
Oct. 25	Grading—Wash., D. C.	Oct. 21
Oct. 25	Hardware, etc. — Wash., D. C.	Oct. 21
Oct. 26	Remodeling and Repairing Customhouse and Post Office—Buffalo, N. Y.	Sept. 30
Oct. 27	Elevator Plant—Honolulu, H. I.	Oct. 7
Oct. 27	Remodeling Custom House and Post Office — Providence, R. I.	Oct. 7
Oct. 27	Marine Railway—Spec. 4297 —San Diego, Cal.	Oct. 7
Oct. 27	Quay Wall—Spec. 4306— Norfolk, Va.	Oct. 14
Oct. 27	Macadam Roads, etc. — Spec. 4284 — Chelsea, Mass.	Oct. 21
Oct. 27	Hospital Buildings — San Diego, Cal.	Oct. 21
Oct. 27	Concrete Roads, etc.—Brooklyn, N. Y.	Oct. 21
Oct. 30	Hoisting Plant—Wahington, D. C.	Sept. 16
Oct. 30	Cable Hangers—Washington, D. C.	Oct. 14
Nov. 2	Mailing Vestibule—Washington, Pa.	Oct. 21
Nov. 2	Lumber Storehouses—Phila., Pa. Adv. Oct. 21.	Oct. 21
Nov. 3	Steam Locomotive Crane—South Boston (Boston P. O.), Mass.	Oct. 21
Nov. 4	Steel Acetylene Buoy Bodies —Tompkinsville, N. Y.	Oct. 21
Nov. 4	Repairing Assay Office—New York, N. Y.	Oct. 21
Nov. 5	Earthwork — St. Louis, Mo. Adv. Oct. 7 to 21.	Oct. 7
Nov. 5	Steel Barges—Vicksburg, Miss. Adv. Oct. 14 and 21.	Oct. 14
Nov. 8	Post Office—Front Royal, Va.	Oct. 21
Nov. 10	Pumping Facilities—Wash. D. C Adv Oct. 14 and 21.	Oct. 14
Nov. 10	Heating System—Spec. 4189 —Mare Island, Cal.	Oct. 21
Nov. 11	Conduit, etc.—Wash., D. C.	Oct. 21
Nov. 15	Marine Hospital—Phila, Pa	Oct. 21
Nov. 15	Extending Mailing Vestibule, etc.—Akron, O.	Oct 21
Nov. 17	Marine Railway—Spec. 4254 —Pearl Harbor, H. T. Adv. Oct 14 and 21.	Oct. 14
Nov. 17	Ordnance Buildings—Spec. 4168—Pearl Harbor, H. T Adv. Oct 14 and 21.	Oct. 14
Nov. 17	Remodeling Post Office and Court House—Sacramento, Cal	Oct. 21
Nov. 18	Earthwork—St Louis, Mo. Adv. Oct. 21.	Oct 21

MISCELLANEOUS

Oct. 25	Bitumen—New York, N. Y.	Oct. 2
Oct. 27	Testing Machine — Dover, Del	Oct. 7
Oct. 28	Telephone Service Equipment, etc.—Phila., Pa.	Oct. 21
Oct. 29	Terminal — Rouses Point, N. Y. Adv. Oct. 7 to 21	Oct. 7
Oct. 29	Foundations — Rochester, N. Y. Adv. Oct. 7 to 21.	Oct. 14
Nov. 1	Basement—Casper, Wyo.	Oct. 21
Nov. 1	Smelting Improvements — Galena, Kan.	Oct. 21
Nov. 1	Ferryboat — New York N. Y	Oct. 21
Nov. 2	Supplies—Toronto, Ont.	Oct. 21
Nov. 3	Springfield, Mass.	Oct. 21
Nov. 5	Dumping Scows—New York, N. Y	Oct. 21
Nov. 16	Head Gates—Baldwinsville, N. Y. Adv. Oct. 21	Oct. 21
Nov. 16	Dockwall—Buffalo, N. Y. Adv. Oct. 21.	Oct. 21
Nov. 22	Lock and Dam—Chicago, Ill. Adv. Oct. 21.	Oct. 21

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Pa., Harrisburg—City election in November to vote on $1,600,000 bonds to improve waterworks system, involving 25,000,000 gal. reservoir, 6 additional filters, additional intake pipe in river, 400 hp. boiler, new pump for reservoir and new force main. J. H. Fuertes 140 Nassau St., New York City, engr.

Va., Winchester — See "Streets and Roads."

Mich., Alma—City election Nov. 2, to vote on $80,000 bonds to complete waterworks system and watermain extensions. W. E. Reynolds, city mgr.

Mich., Ecorse—City had plans prepared by G. Jerome, engr., 1331 Majestic Bldg., Detroit, for extension to watermains from here to River Rouge system, involving 27,140 ft. 6-12 in. c.i. pipe, special fittings, etc.

Mich. River Roge—City had plans prepared by G. Jerome, engr., 1331 Majestic Bldg., Detroit, for laying watermain extensions involving 13,610 ft. 6-12 in. c.i. pipe, valve connections, etc.

Kan., Cimarron—City election soon to vote on $12,000 bonds to install pumping equipment also build new tower, tank and well. W. B. Rollins Eng. Co., Ry. Exch. Bldg., Kansas City, Mo., engrs.

Kan., Everest—City defeated $30,300 bonds to improve waterworks system.

Kan., Osawatomie—City rejected bids building dam to impound 60,000,000 gal.

Waterworks (Continued)

Work will be readvertised. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs. Noted Sept. 30.

Ark., Atkins — City having preliminary plans prepared by Ford & MacCrea, engrs., 326 Gazette Bldg., Little Rock, for improving waterworks and sewer systems. About $120,000.

Cal., Santa Cruz—City plans to build reservoir to store creek waters. Cost between $40,000 and $50,000.

Que., Coaticook—City plans to build dam and power house in connection with waterworks system. About $65,000. E. E. Akhurst, supt.

Ont., Almonte—City had report and estimates made by A. F. Macallum, city engr., for waterworks system, to include intake, supply system, pumphouse, filters, reservoir, distribution system, etc. About $263,695.

Ont., York—Twp. plans to lay 6 in. c.i. water mains in Cliff, Besdey, Jasper, Belvedere, Amherst, Desmond, Burtan, Delivan, Northland, Lapp, Lauder, Pinewood, Atlas, Hanson, Shader, Rockvale, Huron, Dyenevor and Runnerdale Sts. About $100,000. F. Barber, 40 Jarvis St., Toronto, engr.

Cuba—Guantanamo—City plans to build waterworks system. About $500,000. A. Potter, 50 Church St., New York City, engr.

BIDS DESIRED

O., Defiance—Until Nov. 1 by Director Pub. Serv., furnishing and installing pumping machinery, piping, electrical equipment and wiring, carbon dioxide gas generating and compressing apparatus at city waterworks; advertised in this issue.

Ind., South Bend—Until Oct. 27, by Bd. Water Comrs. furnishing labor and material and installing c. i. suction and discharge mains, and for such collateral work as may be necessary to remodel Central Pumping Sta. Size of pipe varies from 10 to 30 in. in diameter and depth below present ground surface ranges from 15 to 25 ft. Connections to wells, installation of valves and construction of valve chambers, certain masonry work, and construction of tunnel under present head race are also included in above contract. W. Artingstall, Old Colony Bldg., Chicago, consult. engr.

Mich., Oxford—Until Nov. 16, by H. V. Rahm, village clk., furnishing labor and material building pump pit, pumps, station piping, meter tank, etc., involving 20.5 ton 10 in. and 1.6 ton 4 in. c.i. pipe, 2 centrifugal domestic service pumps of 350 gal. per minute capacity, 70 lb. pressure, 30 hp. A. C. motor, 1 centrifugal fire pump, 750 gal. per minute capacity, 100 lb. pressure, 75 hp. A. C. motor, 60,000 gal. tank on 100 ft. steel tower, etc. About $25,000.

Ill., Normal—Until Oct. 25, by E. L. Buck, city clk., building 16 in. well equipped with pump of 700 gal. per minute capacity; advertised in this issue.

Kan., Baxter Springs—J. B. Hogdon, city engr., receiving bids improving waterworks and extending water mains in various streets. Bonds for $42,000 sold for project.

Kan., Portis—Until Oct. 26 by City Clerk, building waterworks system, including 40,000 gal. water tower, motor distributing system, 8,680 ft. 4-6 c.i. pipe, 5,000 lb. c.i. specials, etc. About $32,000. E. T. Archer Co. New England Bldg., Kansas City, Mo., engrs. Noted Aug. 12.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Atlantic**—City let contract building rein.-con. reservoir, 250,000-gal. capacity, to R. O. Lovett, Atlantic. About $12,000. Noted Sept. 23.

★**N. D., Hankinson**—City let contract building water-works system, involving 25,980 ft. 4-8 in. c. i. pipe, 30 hydrants, one 100,000 gal. tank and tower, etc., to W. D. Lovell, 1415 South East 8th St., Minneapolis, Minn. About $151,000. Noted Aug. 5.

★**Ont., York**—Twp. let contract to A. Cavotti, c/o F. Barber, engr., 40 Jarvis St., Toronto, laying 6 in. c.i. water main, in Caledonia, Corby and Gilbert Rds., $6,975; Kane, Evart and Silverthorne Rds., $7,276; Keele St. and Weston Rd., $6,575; Rogers Rd., $2,154, to Grant Contg. Co., Manning Chambers, Toronto, Dufferin St., $5,805.

Sewers

PROPOSED WORK

N. Y., Harrison — City plans to build sewerage system. About $350,000. A. Potter, 50 Church St., New York City, engr.

Va., Winchester — See "Streets and Roads."

O., Youngstown—City plans to build 3½ mi. addition to Mill Creek Dist. sewer, involving 30-36 in. concrete pipe. About $200,000. G. F. Turner, City Hall, engr.

Mich., Detroit—City having plans prepared building lateral sewer 3,354 between Charleston, Exeter and Lantz Sts. and Seven Mile Rd.; 3,355 Exeter St., alley east of Derby St., Seven Mile Rd. and tracks of Grand Trunk R.R.; 3,360 Seven Mile Rd., Coventry, Lindale and Lantz Sts.; 3,361, tracks of Grand Trunk RR., John R., Coventry and Lantz Sts.; 3,362, State Fair, Okland, Hawthorne and Lantz Sts., 3,363, Seven Mile Rd., Lindale, Irvington and Lantz Sts.; 3,364, State Fair, Coventry, Irvington and Lantz Sts.; 3,365, State Fair, John R., Coventry and Lantz Sts.; 3,366, Cecil, Braden and Michigan Sts. and north of Horatio St.; 3,264, Fairview, Engel, Marsh and Edlie Sts.; all to be vitr. brick. C. W. Hubbell, city engr.

Mich., Lansing—City plans to build trunk outlet and sanitary sewerage system in southwestern section of city. About $150,000.

Ia., Ft. Dodge—City Council received no bids Sept. 21, building sanitary sewers in various sewers, involving 10,255 ft. 6-12 in. tile. Work will be readvertised later. C. H. Reynolds, Ft. Dodge, engr.

Minn., Red Wing—City election Nov. 2, to vote on $50,000 bonds for sewers, paving and fire protection.

Wyo., Casper—City election Nov. 2, to vote on $250,000 bonds to build several new sanitary sewer districts. Work includes concrete and vitr. pipe, flushtanks, earth trenching. F. S. Knittle, city engr.

Mo., Excelsior Springs—City voted $30,000 bonds to build disposal plant and main sewer, vitr. and c.i. pipe. Shockley Eng. Co., Kansas City, Mo., engrs. Noted Sept. 23.

Mo., Cameron—City having plans prepared building clay sewers in various streets. About $15,000. E. T. Archer Co., New England Bldg., Kansas City, Mo., engrs.

Ark., Atkins—See "Waterworks."

Okla., Miami—City had preliminary plans prepared for vitr. clay outfall sewer. About $150,000. J. B. Gibbs, clk. Hughes Eng. Co., 304 Bank Commerce Bldg., Tulsa, engrs.

Col., Denver—City receives bids about Feb. 1, building storm sewers, manholes and inlets, in 20 mi. North Denver Storm Sewer Dist. 2, involving 78 in. brick, rein.-con. or segmental block pipes and 90,000 ft. 10-24 in. vitr. pipe. About $513,692. J. B. Hunter, city engr.

Wash., Tacoma—City plans to build storm and sanitary sewerage system. About $199,407. J. C. Manley, Tacoma, engr.

Ont., London—City having plans prepared by H. A. Brazier, city engr., for 3 mi. sewer extension, involving 15,000 ft. 12-20 in. vitr. tile pipe. About $75,000.

Ont., Midland—Town having surveys made by E. A. James Co., Ltd., engrs., 36 Toronto St., Toronto, for vitr. sewer extensions. About $100,000.

BIDS DESIRED

N. Y., Syracuse—Until Nov. 8, by Syracuse Intercepting Sewer Bd., 104 City Hall, building extension to main intercepting sewer from Spencer to Hiawatha Sts., also auxiliary sewers and connections. H. J. Hamlin, sec.; advertised in this issue.

La., Rayville—Until Nov. 9, by Sewerage Comn. building sewerage system, involving 6,840 ft. 6/10 in. terra cotta pipe, 17 manholes, etc. Pipe and brick will be furnished by Sewerage Comn. C. W. Gaines, chn.

Ind., East Gary—Until Nov. 1, by C. P. Papka, clk., furnishing labor and material for building 9,397 lin.ft. 10-24 in. vitr. sewer in Sewer Dist. 1. About $44,763. Noted Sept. 2.

Kan., Stockton—Until Oct. 28, by city, building sanitary sewers in various streets, vitr. and c.i. pipe. About $65,000. E. T. Archer, New England Bldg., Kansas City, Mo., engr. Noted Oct. 7.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Dept. Pub. Wks., City Hall Annex, let contracts constructing sewerage system in Alger St. (South Boston), to A. G. Tomasello, 69 Gibson St., Dorchester, $13,126; Baufield Ave. (Dorchester), to D'Addario & Booth, 49 Edwater Drive, Mattapan, $7,969.

★**Mass., Boston**—Pub. Wks. Dept., City Hall Annex, let contract constructing sewerage system in Lubec St. Outlet (East Boston), to A. Cefalo, 316 Belgrade Ave., Roslindale, $28,912; Itasco St. (Dorchester), to J. Guarino, 45 Brook Ave., Roxbury, $10,013.

N. Y., Ossining—C. F. Rattigan, supt. State Prisons, Captol, Albany, receives bids Oct. 13, building sewerage and water works systems, at Sing Sing Prison, here from C. Ippolito, 252 Main St., Orange, N. J., $442,471. Work involves 3,890 cu.yd. rock excav. and backfill from 12 to 20 ft. below present grade, at $21 per cu.yd., 4,760 cu.yd. from 6 to 12 ft. below present grade, $18, 4,300 cu.yd. from 0 to 6 ft. below present grade, $12, 103 cu.yd. earth excav. and backfill, 20 ft. and over below present grade, $10, 202 cu.yd. from 12 to 20 ft. below present grade, $9, 2,869 cu.yd. from 0 to 6 ft. below present grade, $5, all work other than excav. and backfill, $143,000. Noted Sept. 23.

W. Va., Charleston—City received bids building sewers in Alley E, Garvin, Beechwood, Hansford, Piedmont and Carr Sts. from G. B. Roberts, Charleston, $44,872; Reed & Lapsley, 7th Ave., South Charleston, $45,598; Brown & Floyd, 70 Lowenstein Bldg., $48,730.

★**Mich., Lansing**—City let contract furnishing labor building sanitary sewers in district north of Potter Park, to E. J. Noyce, Lansing. About $40,000. Tile blocks and castings to be furnished by city.

★**Mich., Pontiac**—City let contract building Sects. 2 and 3, trunk sewers for relief system, to Foley & Riley, 634 1st Natl. Bank, Chicago, $108,701 and $94,189, respectively. Sect. 2 involves 996 ft. 48 in. sewer at $38 per ft., 1,794 ft. 42 in., $37, etc.; Sect. 3, 3,365 ft. 36 in., $27, etc. Sect. 4, to G. Pontarelli, 1452 Spruce St., Detroit, $69,139. Latter section involves 1,281 ft. 24 in. vitr. pipe, $14; 800 ft. 24 in. c. i. pipe, $28; 930 ft. 22 in. vitr. pipe, $11; 885 ft. 20 in. vitr. pipe, $11, etc. C. W. Hubbell, 2348 Penobscot Bldg., Detroit, engr.

★**Ia., Gilmore City**—City let contract building sewerage system, to Rude & Wold, Pomeroy, $85,099; disposal plant, to Phelps & Sons, Knoxville, $27,309.

★**N. D., Hankinson**—City let contract building sewerage system involving 26,709 ft. 8-15 in. vitr. pipe, 48 manholes, 1 septic tank and 1 sludge bed, to J. O'Connor Co., Fargo. About $82,000.

★**Cal., Fullerton**—City let contract building sludge tank, screening plant, pipe lines and channels, to W. Ledbetter, P. E. Bldg., Los Angeles, $17,374.

★**Ont., Hamilton**—City let contract building vitr. pipe sewers in Mary and Wentworth Sts., to Pub. Wks. Dept, City Hall, $26,860; Brock St. and Central Ave., to J. D. Armstrong, 138 Erie Ave., $9,895.

Bridges

PROPOSED WORK

N. H., Lebanon—Town plans to build concrete bridge on West Lebanon Rd., to replace Hubbard Bridge. Cost to exceed $25,000. H. B. Jackson, member bridge comn. Architect not selected.

Vt., Troy—Town and State Highway Dept., Montpelier, plan to build 3 span, 90 ft., rein.-con. highway bridge, here. H. M. McIntosh, c/o State Highway Dept., Montpelier, engr.

Mass., Westport—Town plans to build concrete and steel bridge over Westport River, between here and Horse Neck. Engineer not selected.

O., Cambridge—Guernsey Co., Pennsylvania R.R. and Baltimore & Ohio R.R., having sketches made for concrete and steel viaduct over Wills Creek and tracks of Pennsylvania R.R. and Baltimore & Ohio R.R., 700 ft. long, 24 ft. roadway, 5 ft. sidewalks on each side. About $200,000. Cost to be borne by county and railroads. Braun, Fleming, Knollman & Prior, 233 South High St., Columbus, engrs. Noted Sept. 23.

Kan., Hays—Ellis Co. plans to build Dreeling Bridge, 30 ft. long; Werth Bridge, 140 ft. long, to have seven 20 ft. low water spans; Candels Bridge, 60 ft. long, to have three 20 ft. low water spans. C. J. Loreditch, Hays, engr.

Kan., Holton—Jackson Co. plans to build 100 ft. bridge, 16 ft. wide, involving 43 cu. yd. rein.-con., 63,800 lb. steel in trusses, 14,700 lb. reinforcing steel in floor, also 60 ft. bridge, 16 ft. wide, involving 25.5 cu.yd. rein.-con., 26,000 lb. steel in trusses and 9,100 lb. reinforcing steel in floor. Superstructures only, abutments already in place. Bids with or without concrete floor. P. Wright, Holton, engr.

Cal., San Bernardino—City election Nov. 2, to vote on $60,000 bonds to repair concrete bridge over Lytle Creek, on Mt. Vernon Ave., and $15,000 bonds to repair 2 bridges over Warm Creek. W. L. Brown, city engr.

Bridges (Continued)

BIDS DESIRED

Va, Norfolk—Until Nov. 5 at office of City Manager, constructing Compostello Bridge over Elizabeth River. R. B. Preston, engr.; advertised in this issue.

S. C., Manning—Until Nov. 3, by Comrs. Clarendon Co., building creosoted timber bridges on Manning-Turbeville Rd., involving 133,018 ft. creosoted lumber, 7,120 lin. ft. creosoted piling, 8,779 lb. hardware, 1,808 sq.yd. of bituminous wearing surface; on Manning-Paxville Rd., 21,562 ft. creosoted lumber, 1,480 lin.ft. creosoted piling, 1,318 lb. hardware, etc. Lee, Pennell & Murray, Sumter, engrs.

Ga., Chatsworth—Until Nov. 3, by Bd. Supervs. Murray Co., building bridge over Sumac Creek, also earth and gravel roadway 9 mi. north of here. Work involves 6,500 cu.yd. borrow excav., 515 cu.yd. gravel surfacing, concrete deck girder bridge involves 162 cu.yd. Class "A" and 171 cu.yd. Class "B" concrete, 42,900 lb. reinforcing steel, etc. Luten Arch Bridge Co. has submitted design (which may be used as alternate for design submitted by State Highway Dept.), which involves 187 cu.yd. Class "A" and 283 cu.yd. Class "B" concrete, 15,350 lb. reinforcing steel, etc. J. M. Campbell, chn.

La., Jena—Until Nov. 1, by Comrs. La Salle Parish, building 31 steel bridges, varying in length from 14-90 ft., 15 ton capacity. Tenders will also be received for creosoted timber for above bridges and 3 carloads 15-36 ft. corrugated culverts. F.o.b. Jena, also in place.

Mich., Detroit—Until Oct. 30 (change of date), by Dept. Pub. Wks., furnishing labor and materials, tools, equipment and other means of construction, all preliminary and temporary structures for facilitating or protecting work necessary to build Belle Isle Bridge. J. A. Martin, comr.; advertised in this issue. Noted Sept. 23.

Mich, Detroit—Until Nov. 5, by Bd. Rd. Comrs., Wayne Co., 312 County Bldg., constructing substructure of 2 bridges over River Rouge, on Jefferson Ave., W. and Fort St., W. E N Hines, chn; advertised in this issue Noted May 20.

Tex., Ft. Worth—Until Nov. 4, by H. L. Small, judge Tarrant Co., building 112 ft. rein.-con., bridge, 20 ft. wide, on Highway 1, over Marys Creek, to have four 28 ft. spans. Work involves 47,546 lb. reinforcing steel, 291.7 cu.yd. Class "A" and 216 cu.yd. Class "C" concrete, etc. About $26,428. R. V. Glenn, co. engr.

Tex., Laredo—Until Oct. 29, by Laredo Bridge Co., at office of W. E. Simpson Co., consult. engrs., Hicks Bldg., San Antonio, building 820 ft. rein.-con. arch bridge, over Rio Grande River, between here and Nuevo Laredo, Mex.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Pa., Brownstone—Phila. & Reading Ry., Reading Terminal, Phila., let contract building 30 ft. concrete and steel bridge, 70 ft. wide, over Berks and Dauphin Turnpike, near here, involving 1,145 cu.yd. rein.-con., 5,000 cu.yd. earth approach and fill, and 93 tons steel, to Bennett & Randall, Lebanon. About $50,000.

North Carolina—State Highway Comn., Greensboro, received bids building bridges and culverts on Federal Aid Project 98A, Moore Co., involving 1,886 cu.yd. Class "A" concrete, 246,260 lb. reinforcing steel, 4,680 lb. plates and bolts, 990 lin.ft. untreated timber piling, etc., from J. E. Lane & Co., Altavista, Va., $87,938; Stearns Bros., Statesville, $101,403; Lefter & Smith, Albemarle, $103,899. Noted Oct. 7.

★Ia., Bloomfield—Davis Co. let contract building 34 bridges, to Ottumwa Supply Constr. Co., Ottumwa, $105,155.

★Tex., Paris—Lamar Co. let contract building (1) rein.-con. bridges and culverts on Highway 19, involving 366 cu.yd. structural excav., 1,265.5 cu.yd. Class "A" and 362.4 cu.yd. Class "B" rein.-con., etc., (2) concrete and steel bridges on Highway 5, involving 127,679 lb. reinforcing steel, 1,402.4 cu.yd. Class "A," 183.8 cu.yd. Class "B" and 24.3 cu.yd. Class "C" concrete, to A. D. McClain Co., Houston, (1) $72,771, (2) $75,735, both including 10 per cent for engineering and contingencies. Noted Sept. 16, under "Streets and Roads."

Ariz., Wickenburg—State Highway Dept., Phoenix, received bids building two 100 ft. steel trusses for span across Hassayampa River, on Federal Aid Project 31, from Allied Constr. Co., Omaha, $17,398; El Paso Bridge Co., Phoenix, $18,197; Midland Bridge Co., 504 Ry. Exch. Bldg., Kansas City, Mo., $19,750. State will build concrete abutments, piers and floor, cost $28,900. Noted Sept. 9.

Streets and Roads

PROPOSED WORK

Massachusetts—State Dept. Pub. Wks., Div. Highways, Boston, plans to pave 5,000 ft. state highway, Oxford, and 1,250 ft. state highway, Barre, both bituminous macadam.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids Sept. 15, improving 54th St. and West End Ave. from 76th to 91st Sts. and from 69th to 72nd Sts. Work will be readvertised Noted Sept. 23.

N. Y., Syracuse—City plans to pave 1,365 ft. East Adams St., 30 ft. wide, asphalt. About $56,870. H. D. Allen, City Hall, engr.

Pennsylvania—State Highway Dept., Harriburg, received no bids Oct. 13, repaving 26,106 ft. Route 76, Hopewell Twp., Beaver Co.; 16,137 ft. Route 181, Somerset and Nottingham Twps., Washington Co. Noted Sept. 23.

Maryland—State Rd. Comn., 601 Garrett Bldg., Baltimore, rejected bids received, paving following state highways; between Morgantown and Allegany, Allegany Co.; from Haughs Blacksmith Shop to Ijamsville, and Monocacy River to Hopeland, Frederick Co.; from Grove to Fowling Creek, Caroline Co.; from Defense Highway to Anne Arundel Co. line, Prince Georges Co.; from Philadelphia Rd. to Little Gunpowder Falls, Harford Co.; East-on-Claiborne Rd. from Libscombs Gate to Royal Oak, Talbot Co.; from Showell to Delaware State line, Worcester Co.; end of Contr. 520 to New Windsor, Carroll Co. and through Princess Anne Twp., Somerset Co., also Hereford and Falls Rds., Baltimore Co., and Central Ave. to Halls Sta., Prince Georges Co. Work will be readvertised about Jan. 1. Noted Sept. 9, 12, 16, 23 and 30.

Va., Winchester—Town plans to pave, also build sewers and water mains in various streets. About $250,000. Norton, Bird & Whitman, 616 Munsey Bldg., Baltimore, engrs.

North Carolina—State Highway Comn., Raleigh, preparing plans for improving 4.59 mi. road beginning 1 mi. north Mathews to Mecklenburg-Union Co. line, Federal Aid Project 55 B, 18 ft. wide, Mecklenburg Co. Work includes 46,000 sq.yd. penetration macadam, clearing and grubbing, excavating, rebuilding old macadam base and building new broken stone base. About $165,000. W. S. Fallis, state highway engr.

Fla., Clearwater—Comrs. Pinellas Co. plan to pave and widen (from 9 to 16 ft.) 45 mi. road from Clearwater to Safety Harbor, Oldsmar, Hillsborough Co. line and St. Petersburg.

Fla., Cocoanut Grove—See "Miscellaneous."

Fla., Pensacola—Escambia Co. voted $2,000,000 bonds to build brick and concrete roads and bridges. Work includes 18 mi. road to gulf beach. State and Federal Government will appropriate $1,000,000 toward above project.

Tenn., Livingston—Overton Co. voted $150,000 bonds to build various state and Federal aid roads.

O., Columbus—City plans to pave 3d St. from Livingston Ave. to Naghten St., cost $200,000; Front St. from Town St. to viaduct, $200,000; Main St. from Allan St. to Alum Creek, $200,000; West Broad St. from Sandusky to Anson Sts., $60,000; North High St. from Buttles to 5th Aves., $150,000. H. Maetzel, city engr.

O., Toledo—Lucas Co. plans to pave ½ mi. Clinton St., 24 ft. wide, cost $52,700; 1 mi. Douglas Rd., 16 ft. wide, concrete, $39,400; ¾ mi. Hill Ave., 16 ft. wide, concrete, $26,600.

O., Warren—Trumbull Co. plans election to vote on $25,000 bonds to pave 2,352 ft. Sect. A Deal South Rd., 16 ft. wide, Warren Twp., vitr. brick; $104,000 bonds for 8,654 ft. Niles-Warren River Rd., 18 ft. wide, Weathersfield Twp., vitr. brick; $45,000 bonds for 14,525 ft. Sect. G. G. Bloomfield-Kinsman Rd., 14 ft. wide, Greene and Gustavus Twps., bituminous macadam; $125,000 bonds for 23,315 ft. Sect. A, B and C, Youngstown-Kingsville Rd., 14 ft. wide, Fowler Twp., bituminous macadam; $60,000 bonds for 9,847 ft. Sect. Br. A and S S-D, Brookfield South East-Stewart-Sharon Rd., 16 ft. wide, Brookfield Twp., bituminous macadam; $118,000 bonds for 21,188 ft. Sect. A, B, C, D and E Chestnut Ridge Rd., 14 ft. wide, Hubbard Twp., bituminous macadam; $35,000 bonds for 6,000 ft. Sect. F and G, Youngstown-Kingsville Rd. (Churchill north), 16 ft. wide, Liberty Twp., bituminous macadam; $55,000 bonds for 14,531 ft. Sect. C, D, E and F, Salt Springs-Youngstown Rd., 12 ft. wide, Weathersfield Twp., bituminous macadam; $65,000 bonds for 12,938 ft. Sect. C, D and E, Bailey-Leavittsburg-Johnson Rd., 16 ft. wide, Warren Twp., concrete. R. E. Hempel, 211 Scott St., engr.

Michigan—State Highway Dept., Lansing, soon receives bids grading and draining 8 mi. Federal Aid Rd. 43, Sect. C, east end of Muskegon-Casnovia Rd., Muskegon Co.; 14 mi. State Trunk Line Rd. 21-13, Port Huron-Imlay City Rd., St. Clair Co. F. F. Rogers, state highway comr.

Mich., Detroit—City plans to grade, shape and pave with asphaltic concrete on concrete foundation, Amherst, berea or medina curb stone, Amherst St. from Junction Ave. to Cavalry St., Belletree St. from Grand River Ave. to Collingwood St., Chenlot St. from Belletree to Nardin Sts., Dailey St. from Grand River Ave. to Northfield St., 14th St. from Leslie to Indiandale Sts., Ivanhoe St. from Northfield to Colfax Sts., McQuade St. from Joy to Calvert Sts., Marlborough St. from Charlevoix St. to Mack Ave., Quincy St. from Joy Rd. to proposed extension of Boston Blvd., 30th St. from Milford to Moore Sts., Threadway St. from Crane to Holcomb Sts., Turner Pl. from Forest to Garfield Sts., Wilson St. from Edison to Longfellow Sts.; 1 course concrete with 2 x 6 in. retaining plank alley between Bellevue, Concord, Mack and Pulford Sts., between Connors, Tennessee, Jefferson and Freud Sts., between Crane, Rohns and Lambert Sts. and Harper Ave., between Ellery, Forest and Grafield Sts. and Heck Pl., between Fisher and Crane Sts.; also Forest and Warren Aves., between Jos. Campau, McDougal, Sherman and Maple Sts., between Montclair, Lemay, Edlie Sts. south to Lot 34, between Oakland, Goodwin, Lynn and Caniff Sts., between 2d, Cass, Antoinette and Colburn Sts., between Seyburn, Van Dyke, Warren and Gratiot Sts. Streets 26 ft. wide and alleys 18-20 ft. wide. C. W. Hubbell, city engr.

Minn., Red Wing—See "Sewers."

Kan., Cimarron—Gray Co. rejected bids Sept. 21, grading and graveling 5.796 mi. Santa Fe Trail Rd. About $74,725. Work will be readvertised. W. Barton, Cimarron, engr. Noted Sept. 9.

Kan., Columbus—Cherokee Co. soon receives bids improving and building bridges on 3.07 mi. Spring Valley Rd., involving 13,205.8 cu.yd. concrete, 38,553 cu.yd. earth and 21,062 cu.yd. rock excav., 17,383 lb. reinforcing steel, 213.33 cu.yd. Class "A" and 218.89 cu.yd. Class "C" concrete. C. M. Cooper, Columbus, engr.

Kan., Concordia—Cloud Co. had plans prepared grading, paving and building culverts and bridges on 37 mi. road from Glasco to county line, 16 and 18 ft. wide, concrete. Tuttle, Ayres & Woodward, Reliance Bldg., Kansas City, Mo., engrs.

Kan., Fredonia—Wilson Co. plans to gravel 2.33 mi. Fall River Rd., 16 ft. wide. About $30,000. C. P. Donald, Fredonia, engr.

Kan., Salina—Saline Co. plans to grade and build culverts on 1.989 mi. Meridan Highway, Federal Aid Project 69, 18 ft. wide. About $28,000. W. H. Cost, Salina, engr.

Missouri—State Highway Dept., Doniphan, received no bids Oct. 9 building 14.45 mi. Doniphan-Alton Rd. (Pine-Barclay Special Rd. Dist.) 24 ft. wide, Federal Aid Project 21, Ripley Co., cost $50,117; rein.-con. skew slab superstructure and 1 concrete pier, on Sta. 735 plus 90, on above project, $6,905. Noted Sept. 30.

Mo., Carthage—Jasper Co. plans to gravel and build concrete culverts on 7 mi. Carthage-Springfield Rd. About $30,000. F. B. Newton, Carthage, engr.

Mo., St. Louis—City plans to pave 2,300 ft. strip of ground added to roadway on each side of Washington Ave. from 12th to 18th Sts., 6 ft. wide, involving 1,533 sq. yd. wood block, cost $26,900; improving 6,200 ft. Oakland Ave. from Kingshighway to Clayton Blvd., 50 ft. wide, 34,444 sq.yd. asphalt pavement, $139,500, bitulithic, $138,600, or bituminous macadam, $104,550; reconstructing 2,400 ft. Easton Ave. between Marcus Ave. and Kingshighway, 21,333 sq. yd. asphalt pavement, $47,450, recut granite block, $51,700, or wood block, $63,650; 1,975 ft. Compton Ave. from Laclede to Lucas Aves., 60 ft. wide, 13,166 sq.yd. brick pavement $25,850, asphalt, $20,650, or granite block, $37,950; repaving 12th St. from Russell to Park Aves., 80 ft. wide, 27,466 sq.yd. brick, $107,400, bitulithic, $104,550, or wood block, $137,450. W. W. Horner, city engr.

Tex., Quitman—Wood Co. having plans prepared grading, surfacing and draining 4.57 mi. Highway 15 from Mineola to Smith Co., involving 7 acres clearing and grubbing, 31,190 cu.yd. unclassified earth

Streets and Roads (Continued)

excav., 17,396 lb. reinforcing steel, 6,862 cu.yd. gravel, 164.5 cu.yd. Class "A" and 48 cu.yd. 1:3:6 concrete. About $72,696. S. B. Davis, co. engr.

Colorado—State Highway Dept., Denver, received no bids Oct. 11, grading and gravel surfacing 4.8 m. Florence-Cripple Creek Rd., 16 ft. wide, Federal Aid Project 52, Teller Co., cost $21,480; grading and shale surfacing 1.8 mi. Rifle-Meeker Rd., 16 ft. wide, Federal Aid Project 128, Rio Blanco Co., $15,766. J. E. Maloney, State Museum Bldg., Denver, engr. Noted Sept. 30.

Col., La Junta—City will probably open bids about Jan. 1, paving 4,700 ft. Colorado and Santa Fe Aves., Cross, 1st, 2nd and 3rd Sts., 40-70 ft. wide, concrete, bitulithic or asphaltic concrete. F. F. Lewis, city engr. W. E. Baldry, 1106 West 13th St., Topeka, Kan., consult. engr.

Oregon—State Highway Comn., Multnomah Co. Court House, Portland, rejected bid received Sept. 28, grading 12.05 mi. Kamela-Hilgard Sect. Old Oregon Trail, Union Co. H. Nunn, state highway engr. Noted Sept. 23.

Ont., Hamilton—City plans to lay wood block pavement on 1 street, cost $42,000; asphalt on 5 streets, $88,000. Work involves 30,000 sq.yd. pavement on concrete base. E. R. Gray, city engr.

Ont., Niagara Falls—Queen Victoria, Niagara Falls Parks Comn., making surveys and plans for extending river driveway from here to Niagara-on-the-Lake, 35 mi. from here, macadam. About $1,250,000.

Ont., Ottawa—City soon receives bids building 4,500 sq.yd. asphalt pavement and 2,500 lin.ft. concrete curb and gutter. About $25,000. A. F. Macallum, city engr.

BIDS DESIRED

New York—Until Oct. 29, by F. S. Greene, Comr. State Highway Comn., 55 Lancaster St., Albany, improving and completing highways in Albany, Chautauqua, Erie, Greene, Montgomery, Oneida, Otsego, Seneca, Ulster, Westchester and Yates Counties; advertised in this issue.

N. Y., Brooklyn—Until Oct. 27, by E. Riegelmann, boro. pres., relocating tracks and rails on Bath Ave., from Bay 19th St. to 21st Ave.; regulating, paving and repaving with permanent asphalt pavement on 6 in. concrete foundation roadway of Bath Ave. from Bay 19th St. to 21st Ave., roadway of Linden St. from Knickerbocker to Myrtle Aves., roadway of 72nd St. from 3rd to 6th Aves., 73rd St. from 4th to 6th Aves. and 6th Ave. from 71st to 73rd Sts.; 3 in. asphalt block pavement on concrete foundaton, roadway of 72nd St. from 3rd to 6th Aves., 73rd St. from 4th to 6th Aves. and 6th Ave. from 71st to 73rd Sts.

N. Y., Long Island City—Until Oct. 29, by M. E. Connolly, pres. Queens Boro., 68 Hunterspoint Ave., regulating and repaving with asphaltic concrete pavement together with all incidental work, Cooper Ave. from Myrtle Ave. to Montauk Div. of Long Island R.R., Shell Rd. from 30th St., Elmhurst, to Jackson Ave.; Strongs Causeway from Colonial Ave. to North Hempstead Turnpike; Rockaway Blvd. from Eastern to 5th Aves.; and from Nortons Creek to Cronins Crossing. Noted Oct. 7.

N. C., Pittsboro—Until Nov. 8, by Comrs. Chatham Co., building 24 mi. road from Cape Fear Twp. line, via Lexington, to Durham Co line and via Bells Church to Durham Co. line. Cost to exceed $100,000. W. H. Ferguson, chn. L. V. Edwards, Winston-Salem, engr

Ga., Chatsworth—Until Nov. 3, by Bd. Supervs. Murray Co., building 6.6 mi. Dalton Chatsworth Rd., Federal Aid Project 178. Work involves 4.5 acres clearing and grubbing, 36,500 cu.yd. common, 1,500 cu. yd. borrow and 1,610 cu.yd. rock excav., 151 cu.yd. Class "A," 194 cu.yd. Class "B" and 62 cu.yd. Class "C" concrete, 15,000 lb. reinforcng steel, 1,463 lin.ft. 15-24 in. culvert pipe, 99 cu.yd. cement concrete headwalls and 18,100 cu.yd. top soil surfacing. J. M. Campbell, chn.

Alabama—Until Nov. 10, by W. S. Keller, state highway engr., Montgomery, grading, draining and surfacing 18.878 mi. state trunk road between Guntersville and Boaz, 24 ft. wide, Marshall Co., involving 176,500 sq.yd. 2 in. penetration, bituminous macadam, 38,000 cu.yd. rock, 30,000 cu.yd. earth and 22,500 cu.yd. borrow excav., 53,700 lb. deformed steel, 39,200 cu.yd. crushed stone base, 25,000 ft. lumber in bridges, 1,657 lin.ft. 15-24 in. D. S. terra cotta pipe, 17 acres clearing and grubbing, etc. About $600,000. Noted Oct. 14.

Ala., Birmingham—Until Nov. 12, by Bd. Revenue Jefferson Co., surfacing 10 mi. Leeds Highway from Irondale to Leeds, 20 ft. wide, chert; 13 mi. Old Arkadelphia Rd. from end of present macadam via Olive to Corner School, 20 ft. wide, chert or macadam. S. R. Batson, Jefferson Co. Bank Bldg., co. engr.

La., Arcadia—Until Nov. 8, by Bienville Parish, building 17.37 mi. highway, involving 68 acres clearing, 31 acres grubbing, 45,860 cu.yd. excav., 140,120 cu.yd. embankment, 27,390 cu.yd. gravel, etc. G. R. Wilson, Arcadia, engr.

Ohio—Until Oct. 26, by State Highway Dept. at office of Comrs. Scioto Co. (Portsmouth), grading, paving, constructing bridges and culverts on 1.997 mi. Sect. B, Portsmouth-Oakhill Rd., 16 ft. wide, monolithic brick, cost $96,861; 1.794 mi. Sect. A-3 Portsmouth-Jackson Rd., 16 ft. wide, monolithic brick, $94,894; 2.998 mi. Sect. B-1, Portsmouth-Lucasville Rd., 16 ft. wide, waterbound gravel, $48,892. Noted Aug. 26.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Oct. 28, Vanderburgh Co., Evansville, Lower West Franklin Rd., Perry Twp., rock and gravel; Henry Schutte et al. Rd., Perry Twp., rock and gravel. W. M. Copeland, aud.

Oct. 30, Bartholomew Co., Columbus, 5,540 ft. Ogilvie Rd. on line between Jackson and Ohio Twps., gravel. R. Henderson, aud.

Nov. 1, Dearborn Co., Lawrenceburg, 14,120 ft. W. Walker et al. Rd. A. E. Jackson, aud.

Jasper Co., Rensselaer, W. Herman et al. Rd., Walker Twp.; Claude Spencer et al. Rd., Milroy Twp. S. C. Robinson, aud.

Michigan—Until Oct. 29, by State Highway Dept., at dist. office, Haskins Blk., Cadillas, grading, draining and surfacing 3.757 mi. State Trunk Line Rd. 20-1, 16 ft. wide, Osceola Co., involving 18,951 cu.yd. earth excav., 33,491 sq.yd. gravel surface, etc.; 1.963 mi. State Trunk Line Rd. 20-7, Sect. C, 16 ft wide, Clare Co., 7,652 cu.yd. earth excav., 18,424 sq.yd. gravel surface, etc.

Mich., Harrisville—Until Oct. 29, by Bd. Rd. Comrs. Alcona Co., grading, draining and surfacing 7.915 mi. Federal Aid Project 33, Sects. C and D, involving 33,292 cu.yd. earth excav., 74,292 sq.yd. gravel, 1,219 lin.ft. pipe culverts, etc.

Mich., Newaygo—Until Oct. 29, by Bd. Rd. Comrs. Newaygo Co. (White Cloud), grading and draining 4.515 mi. State Trunk Line Rd. 54-5, Sects. B. C and E, involving 94,243 cu.yd. earth excav., 120 cu.yd. concrete in culverts

Mich., Stanton—Until Nov. 3, by Bd. Rd. Comrs., Montcalm Co., grading, draining and surfacing 6.145 mi. State Trunk Line Rd. 85-1, 16 ft. wide, involving 31,138 cu.yd. earth excav., 57,685 sq.yd. gravel surface, 803 lin.ft. pipe culverts, etc.

Kan., Lawrence—Until Nov. 6, by G. C. Grune, clk. Douglas Co., grading and paving 8 mi. Old Santa Fe Trail, concrete. B. S. Wolfe, co-engr.

Kan., Oskaloosa—Until Nov. 15, by Jefferson Co., graveling, grading and building bridges on 6 mi. Golden Belt Highway, 20 ft. wide, cost $85,000; grading and building culverts on 15 mi. Oskaloosa and Nortenville Rd., 30 ft. wide, $120,000. W. M. Irwin, Oskaloosa, engr.

Kan., Salina—Until Nov. 12, by Saline Co., grading and building culverts on 1.898 mi. Meridan Trail, Federal Aid Project 69a, 30 ft. wide. About $25,000. W. H. Cost, Salina, engr.

South Dakota—Until Oct. 25, by State Highway Comn., at office of Sanborn Co., Woonsocket, grading and draining 12.18 mi. Howard-Woonsocket-Wessington Springs Rd., 36 ft. wide, Federal Aid Project 50, Sanborn Co., involving 24,941 yd. sta. overhaul excav., 91,252 cu.yd. excav., 2,092 lin.ft. rein.-con. or corrugated iron pipe, 6,584 lb. reinforcing steel, 95 cu.yd. Class A and 112 cu.yd. Class B concrete, etc. About $90,000. F. W. Schreiber, Pierre, state highway engr.

South Dakota—Until Oct. 25, by State Highway Comn., at office of Jerauld Co., Wessington Springs, grading and draining 16.31 mi. Woonsocket, Wessington Springs-Gonn Valley Highway, 36 ft. wide, Federal Aid Project 38, Jerauld Co., involving 50,525 yd. sta. overhaul excav., 108,594 cu.yd. excav., 1,334 lin.ft. rein.-con. or corrugated iron pipe culverts, 800 cu.yd. Class A, 106 cu.yd. Class B and 6 cu.yd. handrail concrete, 78,000 lb. reinforcing and 35,000 lb. structural steel, etc. About $132,000. F. W. Schreiber, Pierre, state highway engr.

South Dakota—Until Oct. 26, by State Highway Comn., at office of Bon Homme Co. (Tyndall), grading and draining 12.94 mi. Tyndall-Lake Andes Rd., 36 ft. wide, Federal Aid Project 38, Bon Homme Co., involving 24,690 yd. sta. overhaul excav., 54,962 cu.yd excav., 1,322 lin.ft. concrete or corrugated iron pipe, 2,295 cu.yd Class A and 98.5 cu.yd. Class B concrete, 24,27[illegible] lb. reinforcing and 36,768 lb. structural steel, etc. About $73,100. F. W. Schreiber, Pierre, state highway engr.

South Dakota—Until Oct. 26, by State Highway Comn., Lake Andes, grading and draining 4.26 mi. Lake Andes-Platte-Chamberlain Rd., 36 ft. wide, Federal Aid Project 68, Charles Mix Co., involving 4,446 yd. sta., overhaul excav., 27,781 cu.yd excav., 126.5 cu.yd. Class A, 8.6 cu.yd Class B and 12 cu.yd. Class D concrete, 10,060 lb, reinforcing and 4,926 lb. structural steel, etc. About $29,000. F. W. Schreiber, Pierre, state highway engr.

South Dakota—Until Oct. 27, by State Highway Comn., at office of Clay Co., Vermilion, grading and draining 13.03 mi. Yankton-Vermilion Rd., 36 ft. wide, Federal Aid Project 67, Clay Co., involving 161,797 cu.yd common and 44,247 yd. sta. overhaul excav., 1,280 lin.ft. 18 in. tile under drain, 1,07[illegible] lin.ft. concrete or corrugated iron pipe culverts, 3,759 lb. reinforcing steel, 44.6 cu.yd Class A and 589 cu.yd. Class B concrete, etc. About $110,000. E. W. Schreiber, Pierre, state highway engr. Noted Sept. 23.

South Dakota—Until Oct. 27, by State Highway Comn., Yankton, grading and draining 13.11 mi. Yankton-Vermilion Rd., 36 ft. wide, Federal Aid Project 65, Yankton Co., involving 4,092 yd. sta. overhaul and 93,044 cu.yd. excav., 1,917 lin.ft. concrete or corrugated pipe culverts, 16,517 lb. reinforcing steel, 168.2 cu.yd. Class A and 132.3 cu.yd. Class B concrete, etc. About $81,700. F. W. Schreiber, Pierre, state highway engr. Noted July 29.

Tex., Anahuac—Until Nov. 8, by J. F. Wilson, judge Chambers Co., grading, surfacing, draining and building trestle on 11.35 mi. Highway 35 from here to Liberty Co., involving 23.41 acres clearing and grubbing, 78,799 cu.yd. borrow and 5,929 cu.yd earth excav., 41,634 lb. reinforcing steel, 24,427 cu.yd. shell surfacing, 490.6 cu.yd Class "A" and 14.23 cu.yd. Class "B" concrete. About $129,709. H. J. Walger, Orchard, engr. Noted Sept. 30.

Tex., Cameron—Until Oct. 28, by W. C. Gellis, judge Milam Co., grading, surfacing and draining 8.769 mi. Temple Rd., Highway 36, involving 40,816 cu.yd. borrow excav., 35,534 lb. reinforcing steel, 374 cu. yd. 1:2:4, 14.4 cu.yd. 1:2½:5, 69.15 cu.yd. 1:2:3½ and 21.56 cu.yd. 1:3:6 concrete. About $68,669. A. F. Mitchell, co. engr.

Tex., Ft. Worth—Until Nov. 4, by H. L. Small, judge Tarrant Co., grading and draining 6.824 mi. Highway 1, Kutemans Cut-off Rd., involving 6,488 cu.yd. borrow, 57,223 cu.yd. earth, 14,452 cu.yd. loose rock and 500 cu.yd. solid rock excav., 4,664 cu yd. native stone base, 616.9 cu.yd. Class "A" concrete, etc. About $108,855. R. V. Glenn, co. engr.

Tex., Fredericksburg—Until Nov. 11, by A. H. Kneese, judge Gillespie Co., grading, surfacing and draining 9.99 mi. Highway 9 from here to Kendall Co. line, 16 ft. wide, involving 7.75 acres clearing and grubbing, 20,930 cu.yd. earth borrow, 18,080 cu.yd. earth, 75 cu.yd. rock, 106.5 cu.yd. wet and 284.4 cu.yd. dry excav., 33,434 lb. reinforcing steel 302.45 cu.yd. Class "A" 288.84 cu. yd. Class "B" and 156.27 cu.yd. 1:2:3½ concrete. About $92,138. A. F. Moursand, Fredericksburg, co. engr.

Col., Colorado Springs—Until Jan. 5, by city, paving Cascade Ave., cost $280,753; Colorado Ave., $232,874; Nevada Ave., $197,183; Platte Ave., $237,786; Colorado Ave., $200,000, total length 8 mi. Bids will be received on Warrenite bitulithic on 4 in. compressed stone base, Warrenite bitulithic on 5 in. concrete base, asphaltic concrete on 6 in. concrete base, sheet asphalt on 6 in. concrete base, 1 in. binder and 6 in. Portland cement pavement. F. F. Mallon, city engr. Noted Oct. 7.

Cal., Visalia—Until Nov. 3, by G. R. Prestidge, clk. Bd. Supervs. Tulare Co., building 3.37 mi. highway from Sect. 31, T 16 S, R 24 E., M. D. B. & M. to south line of city of Dinuba, also 4.31 mi. from Sect. 15, T 16 S, R 24 E., M. D. B. & M. to south line of Sect. 35, involving 7,412 cu.yd. concrete and 13,666 cu.yd. grading.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Maine**—State Highway Dept., Augusta, let contract paving state highway, gravel, Littleton, to Greenwood Constr. Co., Skowhegan, $117,987.

★**Mass., Dorchester** (Boston P. O.)—Dept. Pub. Wks., City Hall Annex, Boston, let contract paving Pleasant St., asphalt, to F. J. Burke, 36 St. Margaret St. About $25,000.

Streets and Roads (Continued)

★**Mass., Hyde Park** (Boston P. O.)—Dept. Pub. Wks., City Hall Annex, Boston, let contract paving River St., asphalt, to Central Constr. Co., 228 Southampton St., Roxbury. About $25,000.

N. Y., Brooklyn—E. Reigelmann, Boro. Pres., received bids Oct. 13 (a) relocating car tracks and rails on Bath Ave., (b) regulating and paving with asphalt pavement Bath Ave., 21st to 35th Sts., (c) regulating and grading 86th St., Stillwell to Gravesend Aves., (d) regulating, grading, curbing and laying sidewalks on 86th St., Stillwell to Gravesend Aves., (e) regulating and laying sidewalks in and adjacent to Borough Hall, from Eastern Contg Co., (a) $5,045; F. J. Gallagher, 490 Park Pl., (a) $6,030; Angel & Kavanaugh, (a) $8,717; Consolidated Asphalt Co., 52 9th St., (b) $60,949; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (b) $62,197; Uvalde Asphalt Paving Co., 1 Bway, New York City, (b) $62,790; P. J. Donovan, 30 Church St., New York City, (c) $25,524; B. Turacamo, (c) $26,808, (d) $8,402; Grimm Constr. Co., (c) $34,688, (e) $10,476; Cassel Bros., (d) $9,853; J. Pallidino, (d) $10,421; F. Percicano, (e) $11,660. Noted Oct. 7.

★**N. Y., New York**—H. Bruckner, pres. Bronx Boro., let contracts regulating and grading West 230th and East 180th Sts., to I. F. Cavalluzzo, $3,959 and $4,606 respectively; Guion Pl., to M. Del Balso, 1434 Bryant St., $6,556; West 190th St., to F. Schneider, Bronx River, $16,345; Britton St., also sewer in Carlisle Pl., to De Angelo Contg. Co., $11,852 and $3,658 respectively; Bronx Park Ave., Van Buren and Fillmore Sts., to J. L. Brusstar, Harlem River and 150th St., $24,600, $23,610 and $14,775 respectively; Faile St. and Morris Ave., to Asphalt Constr. Co., 2197 Madison Ave., $17,762 and $9,116 respectively; Post Rd., to Spadero Contg. Co., 827 East 217th St., $14,180. Noted Oct. 7.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro., let contract regulating and repaving Murray St., to P. J. Kearns, 2306 Creston Ave., $79,735; East 97th St., to Asphalt Constr. Co., 2197 Madison Ave., $23,729; East 39th St., to Hastings Paving Co., 25 Broad St., $13,343. Noted Oct. 7.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Oct. 18, regulating and repaving with concrete (a) 2nd Ave. from 4th to 5th Sts., sheet asphalt, (b) Lexington Ave. from 116th to 125th Sts., wood block, (c) 125th St. from 1st to 2nd Aves., (d) 125th St. from 2nd to 3rd Aves., granite block, (e) Washington St. from Murray to Morton Sts., (f) East 24th St. from 1st Ave. to Ave. A, (g) 125th St. from 1st to 2nd Aves., (h) 125th St. from 2nd to 3rd Aves., (i) Lexington Ave. from 130th to 131st Sts., from Burnside Contg. Co., 270 Burnside Ave., (a) $12,969, (f) $29,085, (g) $44,232, (h) $41,396, (i) $9,698; W. J. Fitzgerald, 150 Nassau St., (b) $62,164, (c) $49,360, (d) $43,821; J. L. Brusstar, Harlem River and 150th St., (b) $65,885; Uvalde Asphalt Paving Co., 547 West 45th St., (b) $66,482; P. J. Kearns, 2306 Creston Ave., (c) $46,004, (d) $41,727, (e) $219,112, (f) $31,621, (g) $44,274, (h) $41,596, (i) $9,974; O'Rourke Constr. Co. 1476 Bway, (e) $218,413; Asphalt Constr. Co., 2197 Madison Ave. (e) $234,631, (i) $10,642; C. Hellbock, (f) $30,242, (g) $43,111, (h) $40,620. Noted Oct. 14.

N. Y., New York—G. A. Whalen, Comr. Plant & Structures, Municipal Bldg., received bids Oct. 14, altering Bowery, Bayard and Canal Sts., at Manhattan Bridge Plaza, from Burnside Contg Co., 270 Burnside Ave., $14,690; Astoria Constr. Co., $15,770; P. J. Kearns, 2306 Creston Ave., $16,660.

Pennsylvania — State Highway Dept., Harrisburg, received bids Oct. 13, repaving roads in counties as follows

Allegheny Co., 3,606 ft. Route 70, Cheswick Boro., 1 course rein.-con., from P. J. Ridge Sons Co., 5638 Rippey St., Pittsburgh, $116,485; J. J. Ryan, 1550 Fallowfield Ave., Pittsburgh, $122,424; Martin Brick & Paving Co., Inc., Glassmere, $126,154.

Beaver Co., 3,641 ft. Application 1,236, Economy Twp., 1 course rein.-con. or vitr. brick, from J. B. Reed Co., 550 Bway, McKees Rocks, $59,849. J. C. Devine Co., Alliance, O., $76,619, McDonough & O'Toole, 3032 Landis St., Pittsburgh, $79,039; 4,375 ft. Application 1,237, East Rochester and Freedom Boros., 1 course rein.-con. or vitr. brick, from J. B. Reed Co., $77,211, J. C. Devine Co., $95,012, S. B. Markley, New Brighton, $96,149; 11,097 ft. Application 1,238, Rochester Twp., 1 course rein.-con. and Hillside vitr. brick, from S. B. Markley, $148,322.

Blair and Huntingdon Counties, 4,168 ft. Route 55, Tyrone, Spruce Creek and Morris Twps., 1 course rein.-con., from L. E. Kelly, 189 Montague St., Brooklyn, N. Y., $211,523; Finn & Son, Inc., Mapleton Depot, $241,836.

Bucks Co., 7,453 ft. Route 150, Tullytown Boro., 1 course rein.-con., from B. Foster Co., 20th and Venango Sts., Phila., $117,371; Pennsylvania Eng. & Constr. Co., Real Estate Bldg., Phila., $118,821; Sutton Contg. Co., 1207 Vine St., Phila., $136,807.

Chester Co., 8,917 ft. Route 142, Downington Boro., 1 course rein.-con., from Souder Constr. Co., 349 Woolworth Bldg., Lancaster, $131,224; W. C. Evans, Ambler, $131,902; Fish-Rutherford, Inc., 702 Real Estate Trust Bldg., Phila., $136,231.

Clinton Co., 4,265 ft. Route 58, Flemington Boro., 1 course rein.-con. or bituminous surface course on concrete foundation and Hillside vitr. brick, from Hughes & Phillips, Clearfield, $78,966; F. Murphy, 2635 West Chestnut Ave., Altoona, $82,747; G. J. Thompson & Co., Boro Bldg., Clearfield, $87,692.

Erie Co., 6,253 ft. Routes 86 and 272, Fairview Boro., 1 course rein.-con., from Penn Constr. Co., 23 Penn Bldg., Erie, $98,059; C. H. Fry Constr. Co., Cherry and 19th Sts., Erie, $108,226, also 25,061 ft. Authorizations 401, 402 and 410, North East and Greenfield Twps., 1 course rein.-con., from Warren Bros. Co., 142 Berkeley St., Boston, $254,083; J. Roth (doing business as Good Roads Constr. Co.) 1117 State St., Erie, $266,135; F. L. Cohen, Inc., 1002 Prudential Bldg., Buffalo, $298,573.

Indiana Co., 14,400 ft. Route 68, White and Center Twps., 1 course rein.-con., from McCrady Bros. Co., 6th St., Braddock, $248,648.

Luzerne Co., 4,459 ft. Route 11, Dorranceton Boro., bituminous surface course on concrete foundation, from H. B. Sproul Constr. Co., 218 Adams Ave., Scranton, (Spec. "A") $109,467; Hastings Pavement Co., 25 Broad St., New York City, (Spec. "F") 126,462; Hamilton Kapneck Constr. Co., 1365 Ridge Ave., Phila., (Spec. "F") $171,547.

Lycoming Co., 2,835 ft. Route 176, Limestone Twp., bituminous macadam (penetration method), from R. J. DeLong, 229 West 4th St., Williamsport, 44,696; W. J. Gephart, Linden, $58,340.

Montgomery Co., 45,512 ft. Route 178, Upper and Lower Gwynedd, Whitpain, East Norriton Twps. and North Wales Boro., 1 course rein.-con., from Union Paving Co., 30th and Locust Sts., Phila., $530,860; Claiborne, Johnston & Co., Inc., 910 Garrett Bldg., Baltimore, $559,296; W. C. Evans, Ambler, $567,224.

Northampton Co., 6,317 ft. Route 166, East Bangor Boro. and Washington Twp., 1 course rein.-con. and Hillside vitr. brick, from R. D. Richardson Constr. Co., 828 Connell Bldg., Scranton, $116,131.

Somerset Co., 2,998 ft. Route 51, Berlin Boro, 1 course rein.-con., from Keller & Ferner, Somerset, $58,810.

Washington Co., 22,845 ft. Route 181, North and South Strabane Twps., 1 course rein.-con. and Hillside vitr. brick, from Burgess & Dorrier, Scottsville, Va., $317,495; Petriello Bros. & Co., South Brownsville, $344,368; F. L. Grant, Inc., 36 Lowndes Bldg., Clarksburg, W. Va., $353,916.

York Co., 10,202 ft. Application 401 and 402 Windsor Twp. and Boro., 1 course rein.-con. or bituminous surface course on concrete foundation, from Whiting Turner Constr. Co., Stewart Bldg., Baltimore (rein.-con.) $136,055; G. A. and F. M. Wagman Co., Dallastown, (rein.-con.) $153,486; Freeland Constr Co., Freeland (rein.-con.) $178,359; Genl. Supply & Constr. Co., Prospect and Vander Sts., York (bituminous surface course) $179,264. Noted Sept. 23.

Pa., Pittsburgh—City received bids grading, regrading, paving, curbing, etc., Carson St., east, from Smithfield to South 7th Sts., from M. O. Herron Co., South 1st and McKean Sts., $104,886; Booth & Flinn, Forbes St., $110,666; T. Cronin & Co., 18th St. and Fox. Ave., $111,331. Noted Oct. 7.

North Carolina—State Highway Comn., Greensboro, received bids Oct. 12, improving 5 mi. road between Sparta and Glade Creek, Federal Aid Project 125 A, 12 ft. wide, Alleghany Co., involving (a) 6 acres clearing and grubbing, 43,060 cu.yd. common excav., 34,730 sq.yd. waterbound macadam, 1,330 lin.ft. 15-18 in. terra cotta pipe, etc., (b) 360 cu.yd. Class A. concrete, 606 cu.yd. cement rubble masonry, 1,530 lb. expansion plates and bolts, 735 lin.ft untreated timber piling, 64,320 lb. reinforcing steel, etc., from W. E. Graham, Mt. Ulla, (a) and (b) $137,191; Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., (b) $46,570; 11.93 mi. road between Virginia state line and Yanceyville, Federal Aid Project 112, 18 ft. wide, Caswell Co., 15 acres clearing and grubbing, 48,660 cu.yd. common excav., 31,090 cu.yd. top soiling, 1,764 lin.ft. 15-24 in. terra cotta pipe, etc., from J. M. Gregory & Co., Laurens, S. C., $64,098; J. T. Plott, Greensboro, $66,044; J. A. Kreis & Co., 417 South Gay St., Knoxville, Tenn., $74,838; 9.64 mi. Federal Aid Project 101 B, 18 ft. wide, Randolph Co., 15 acres clearing and grubbing, 48,130 cu.yd. common excav., 25,310 cu.yd. top soiling, 2,488 ft. 15-30 in. terra cotta pipe, etc., from J. T. Plott, $62,558; R. V. Michaux, Albemarle, $67,285; S. L. Davis, Albemarle, $68,827; 21.82 mi. road between Pittsboro and Chatham-Randolph Co. line, Federal Aid Project 99 B, 18 ft. wide, Chatham Co., 14 acres clearing and grubbing, 128,960 cu.yd. common excav., 57,320 cu.yd. top soiling, 3,170 ft. 15-24 in. terra cotta pipe, etc., from J. T. Plott, $124,463; T. W. Chandler, Virginia, Va., $134,187; C. E. Teague, Morgantown, $144,065. Noted Oct. 7.

★**N. C., Newton**—City let contract to G. R. Martin, North Kerr St., Salisbury, for grading, draining and paving Main, College et al. Sts., involving 25,000 sq.yd. concrete paving, $2.70 per sq.yd., 26,400 lin.ft. concrete sidewalk, $1.73, 31,600 lin.ft. combined concrete curb and gutter, $1.25, etc. About $100,000.

South Carolina—State Highway Dept., Columbia, received bids Oct. 12, improving 2.12 mi. Laurens Rd. from Greenville city limits to Jones Store, 20 ft. wide, Greenville Co., involving 8,834 cu.yd. excav., 22,400 sq.yd. asphaltic concrete paving, from Southern Paving & Constr. Co., James Bldg., Chattanooga, Tenn., $106,941; Slattery & Henry, Inc., Greenville, $113,264; Lawrence Constr. Co., 127 8th St., Augusta, Ga., $113,478.

★**O., Euclid**—Village let contract grading and building sidewalks on Priday, Foxton and Westport Aves. from Bliss to Midland Rds., to V. G. Gallier, Builders' Exch., Cleveland, $9,998; Midland Rd., Morris and Wilmore Aves., from Bliss to Midland Rds., East 230th St. from St. Clair to Arms Aves., and Arms Ave. from east to west end, to F. B. Stein, Euclid, $18,821. Noted Sept. 9.

O., Westerville—Franklin Co. (Columbus) received bids Oct. 9, from W. E. Schwartz, Westerville, grading, draining and paving with brick, 2,087 ft. Sect. 1 State St., 30 ft. wide, $58,943; 1,038 ft. Sect. 2 State St., 30 ft. wide, $31,525. Noted Sept. 30.

★**Indiana**—Bd. Co. Comrs. let contract building roads in following counties: St. Joseph Co., South Bend, 6,733 ft. F. A. Miller Rd., concrete, to L. W. Seaman, Goshen, $74,900. Vigo Co., Terre Haute, grading, draining and improving ½ mi. road intersecting Lockport gravel road, to J. W. Lowe, Ripley, $6,741; J. P. Head gravel road, to Rupert & Braden, Brazil, $31,490. Noted Oct. 7.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 5.53 mi. Assessment Dist. Rd. 364, 16 ft. wide, Montcalm, Isabella and Mecosta Counties, to Fak s & Snyder, Lakeview, $66,467. Noted Sept. 23.

★**Wisconsin**—State Highway Comn., at div. office 5, Batavian Bank Bldg., La Crosse, let contract grading and paving 2.47 mi. Black River Falls-Alma Center Rd., Federal Aid Project 84, Jackson Co., to Hoffman & Meeks, Black River Falls. Work involves 5,893 cu.yd. earth excav. at $0.41 per cu.yd.; 200 cu.yd. rock excav., $1.50; 63.5 cu.yd. concrete in culverts, $25; 1.62 acres clearing and grubbing, $150; 24,718 sq.yd. shale surfacing, $0.35, etc. Total cost, $23,233. Noted Oct. 7.

★**Minn., Faribault**—Rice Co. let contract to Day Bros., Minneapolis, for graveling 9 mi. Co. Job 2002, $11,655 and 12.6 mi. Job 1903, $23,803; to Oneida Truck Sales Co., Inc., 226 South 5th St., Minneapolis, 7 mi. Job 2006 (formerly Job 1901), $13,250.

★**Wyoming**—State Highway Dept., Cheyenne, let contract paving 1½ mi. road from center of town to Greybull city limits, Big Horn Co., 20 ft. wide, concrete, to Lloyd Building Co., Casper. About $56,000.

★**Montana**—State Highway Dept., Helena, let contract to N. Story, Jr., 1 story Bl., Bozeman, building 6 mi. Federal Aid Project 117, involving 34,524 cu.yd. excav., 30,769 sta. yd. overhaul, 472 lin.ft. 18-24 in. pipe culverts, 53,101 lb. reinforcing steel, 6,584 cu.yd. surfacing, 264 cu.yd. Class "A" and 309 cu.yd. Class "C" concrete, etc., $83,248; 7 mi. Federal Aid Project 127, 26,969 cu.yd. excav., 5,525 sta.yd. overhaul, 418 lin.ft. 18-24 in. pipe culverts, 4,908 cu. yd. type "A" surfacing, 77 cu.yd. Class "A" and 134 cu.yd. Class "B" concrete, 14,774 lb. reinforcing steel, $59,844; 5 mi. Federal Aid Project 133, 25,461 cu.yd. excav., 3,847 sta.yd. overhaul, 214 lin.ft. 18 in. pipe culvert, 6,259 cu.yd. gravel surfacing, 233 cu.yd. Class "A" and 255 cu.yd. Class "B" concrete, 38,233 lb. reinforcing steel, etc., $50,669. All above projects in Sweet Grass Co.

Streets and Roads (Continued)

Mont., Lewistown—City received bids paving 10 blocks East Main St., concrete, from F. Saner Co., Lewistown, $46,000; Two Miracle Concrete Co., Lewistown, $52,000.

★**Missouri**—State Highway Dept., Richmond, let contract building 2.04 mi. road from Richmond east, 24 ft. wide, State Aid Project S 20.5, Ray Co., to W. A. Ross, Kansas City, Mo., $22,546. Noted Sept. 23.

Missouri—State Highway Dept., Kirksville, received bid Oct. 1, from W. Stoecker, City Hall Bldg., Webster Groves, building 1.1 mi. road from Novinger, west, State Aid Project S. 20.6, Adair Co., involving 17,939 cu.yd. earth excav., at $0.80 per cu.yd., 1,700 cu.yd. borrow, $0.67, 22.8 cu.yd. Class "B" and 5.8 cu.yd. Class "C" concrete masonry, $30 and $28 respectively, 1,756 lb. reinforcement for concrete masonry, $0.09, 50 lin.ft. 12 in. and 40 lin.ft. 24 in. vitr. clay pipe culverts, $2 and $3.50 respectively. Total cost, $16,735.

Tex., San Antonio—Bexar Co. received bids Oct. 2, topping 6.2 mi. Highway 9 from Atascosa Co. line north, 16 and 18 ft. wide, (a) 1 in. rock asphalt treatment, (b) 1 in. bituminous treatment asphalt and trap rock, from Finley Method Co., 703-4 Stewart Bldg., Houston, (b) $34,635; Haden & Austin, 727 Kress Bldg., Houston, (b) $37,837; Chapin-Coglazier Constr. Co., San Antonio, (a) $39,584. Noted Sept. 23.

Colorado—State Highway Dept., Denver, received bids Oct. 11, grading (a) 4 mi. Norwood Rd., 16 ft. wide, Federal Aid Project 66, Montrose Co., (b) 6.8 mi. Kremmling Muddy Pass Rd., 16 ft. wide, Federal Aid Project 75, Grand Co.; grading and gravel surfacing (c) 3½ mi. road from Wray to Schram, 16 ft. wide, Federal Aid Project 40, Yuma Co.; (d) 3.97 mi. Craig-Mabelle Rd., 16 ft. wide, Federal Aid Project 107, Moffat Co.; paving (e) 1.27 mi. Denver-Arvada Rd., 18 ft. wide, Federal Aid Project 120, Jefferson Co., from Girarded & Hotchkiss, Delta, (a) $60,393, (b) $34,601, (d) $53,092; A. Dobie, Sterling, (c) $28,892, (e) $49,780; E. M. Harris, Brush, (c) $30,684; Northwestern Constr. Co., Craig, (d) $53,999; M. J. Kenney, 832 Lafayette St., Denver, (e) $51,326; Colorado Bridge & Constr. Co., Gas and Electric Bldg., Denver, (e) $54,775. Noted Sept. 30.

Wash., Seattle—A. H. Dimock, engr., received bids Oct. 9, grading Bothell Way, involving 7.5 acres clearing and grubbing and 20,200 cu.yd. excav., from G. Rerick, Lyon Bldg., $24,370; H. Pederson Co., 6802 Phinney Bldg., $25,210; W. A. Kupoff, L. C. Smith Bldg., $29,297.

★**Oregon**—State Highway Comn., Multnomah Co. Court House, Portland, let contract surfacing 4.86 mi. Wren-Blodgett Sect. Corvallis-Newport Highway, Benton Co., to Washburn & Hall, Portland, $28,917; paving 5.7 mi. Oregon City-Oswego Sect. Pacific Highway, 16 ft. wide, Clackamad Co., to Scandia Shipbuilding Co., Marshfield, $220,712; stone surfacing 4.2 mi. Hubbard Creek-Brush Sect. Coast Highway, Curry Co., to J. W. Hilstrom, Marshfield, $25,900; grading and surfacing 10.46 mi. Lowen-Crane Sect. Central Oregon Highway, Harney Co., to Porter & Conley, Portland, $147,365; 3,069 lin.ft. guard fence on Newberg-West Dayton Sect. West Side Highway, Yamhill Co. to E. A. Palmer, Lafayette, $2,854. Noted Sept. 23.

Cal., Los Angeles—City received bids paving 5.38 mi. Rd. Impvt. Dist. 150, 20 ft. wide, 5 in. concrete pavement, from F. Hoffman, 111 East 12th St., Long Beach, $224,000; P. L. Terry, Los Angeles, $299,812.

★**Ontario**—Provincial Government, Toronto, let contract building 3 mi. tar bound macadam on Garrison Highway, Bridgeburg, to E. G. Law & Co., 107 Hilsdale Ave., E., Toronto. About $50,000.

★**Ont., Arnprior**—Carleton Co. Rd. Comn., County Bldg., Ottawa, let contract building 15 mi. macadam road and 1 concrete bridge, here, to J. R. McQuigge, Arnprior. About $175,000.

★**Ont., St. Marys**—City let contract paving 20,000 sq.yd. Main St., bitulithic on 6 in. concrete base, to Warren Bituminous Paving Co., McKinnon Bldg., Toronto; concrete curbs and gutter, to Patterson Constr. Co., St. Marys. About $100,000. Noted May 6.

★**Ont., Toronto**—City let contract for 5,277 sq.yd. bithulithic pavement on 5 in. concrete base and 22,325 sq.yd. on 8 in. base, to Warren Bituminous Paving Co., McKinnon Bldg. About $125,000.

★**Ont., Toronto**—City let contract for 5,283 sq.yd. Warrenite bithulithic pavement on 5 in. concrete base, and 1,553 sq.yd. over existing brick pavement, to Warren Bituminous Paving Co., McKinnon Bldg. About $30,000.

★**Ont., Windsor**—City let contract for 5,500 sq.yd. concrete paving and 4,000 lin.ft. curbing, to Caldwell Sand & Gravel Co., 84 Sandwich St. W., $17,800; 16,000 sq.yd. concrete paving and 12,000 lin.ft. curbing, to Chick Contg. Co., Ltd., 351 McDougall Ave., $53,000.

★**Ont., York**—Twp. let contracts building concrete sidewalks and curb on Caledonia and Hanley Aves., Florence Crescent and Spadina Rd., to J. Harrop, 1414 Davenport Rd., Toronto, $13,367; Blandford St. and Weston Rd., to Grant Contg. Co., 50 Front St. E., Toronto, $5,191; Dufferin St., to A. Johnson, 35 Burgess Ave., Toronto, $2,944; Hanson Rd., to Scott, Maddock & Mitchell, 48 Alexander St., Toronto, $4,511; Bee St., to D. Mackay, 287 Ashdale Ave., Toronto, $3,043; Eileen Ave., to Natl. Contg. Co., c/o F. Barber, engr., 40 Jarvis St., Toronto, $4,070; Miller Ave., to Angotti & Smythe, 819 Clarens Ave., Toronto, $415; Southport Ave., to G. B. Moogk, Weston, $7,118; Oakwood Ave., to Walton & Powell, Toronto, $10,405; Spadina Rd., to W. B. Hughes, 53 Victoria Park, Toronto, $5,636; asphalt pavements on Atlas and Arlington Aves. and Rushholme Rd., to Kilmer & Barber, 10 Adelaide St. E., Toronto, $81,154, and Godson Contg. Co., Manning Chambers, Toronto, $15,473.

Railways

PROPOSED WORK

North Carolina—Blue Ridge Development Co., Newton, having estimates made for 106 mi. electric railway from Charlotte to Blowing Rock. Work involves 106 mi. transmission line, 8,000 poles, 1 bridge and 6 trestles. R. E. Wysor, Dublin, Va., ch. engr.

Florida—Atlantic Coast Line Ry. Co., Atlantic Coast Line Bldg., Wilmington, N. C., having surveys made for 30 mi. standard gage railroad on road from Thonotosassa to Trilby, probably heavy rail and rock ballast; preparing road bed, laying rails and building 2 bridges on 40 mi. road from Perry to Monticello. J. E. Willoughby, Wilmington, ch. engr.

Excavation and Dredging

PROPOSED WORK

Ia., Mason City—Drainage—Cerro Gordo Co. rejected bids received Oct. 1, building Joint D.D. 1, involving 131,000 ft. 6-40 in. tile. Work will be readvertised. H. D. Keerl, Mason City, engr. Noted Sept. 16.

Wyo., Casper—Excavation—City election Nov. 2, to vote on $50,000 bonds to change courses of certain streams draining through here. Work involves grading, rock riprap, corrugated iron culverts, etc. F. S. Knittle.

Ida., Wapello—Drainage—Louisa Co. received no bids Oct. 5, building D. D. 22, involving 71,000 cu.yd. excav., 1,000 lin.ft. levee and 3,300 cu.yd. embankment. V. E. Thompson, Wapello, engr. Noted Sept. 23.

Ont., London—Drainage—Stephen, East and West McGillvray, Williams and Bosanquet Twps. having plans prepared by F. W. Farncombe, engr., Dominion Savings Bldg., for drainage system, involving 130,000-140,000 cu.yd. excav. About $75,000. Noted Sept. 2.

BIDS DESIRED

N. Y., New York—Dredging—Until Oct. 26, by M. Hulbert, Comr. of Docks, Pier "A," ft. of Battery Pl., furnishing labor and material for dredging piers at foot of Stanton, East 5th, East 20th, and East 25th Sts., on East River, and pier at foot of West 35th St., on North River.

O., Norwalk—Ditch—Until Nov. 9, by H. P. Starbird, surv., Huron Co., building 2.1 mi. R. V. Wright Improvement of Nogel Co. Ditch, involving 12,173 cu.yd. excav.

Ill., Sterling—Excavation—Until Nov. 4, by Drainage Comrs. Union Special D.D., towns of Tampico, Prophetstown and Hume, Whiteside Co., cleaning out and deepening certain ditches in district; advertised in this issue.

Wis., Waupaca—Drainage—Until Oct. 25, by Waupaca Co. Drainage Bd., building D. D. 1, involving 16,000 ft. tile outlet drain. C. W. Ross, Manawa, secy.

Ia., Adel—Drainage—Until Oct. 27, by M. T. Finley, aud. Dallas Co., furnishing labor and material building D. D. 76, involving 35,694 ft. 6-28 in. tile.

Minn., Crookston—Ditches—Until Oct. 28, by M. J. Welte and Polk Co., building Co. Ditch 34, involving 45,763 cu.yd. excav., 7 mi. grading, seven 12 in. gate culverts, 36 ft. long; Ditch 135, 36,023 cu.yd. excav., 2 mi. grading, six 12-24 in. corrugated iron culverts with gates; Ditch 130, 35,956 cu.yd. excav., 3 mi. grading, etc. About $25,000. E. J. Boyer, Crookston, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Algona**—Ditches—Kossuth Co. let contract building open ditches and tile drains in D. D. 165, involving 1,149,500 cu.yd. excav. and 27,890 ft. 6-26 in. tile, to Thomas & Sweet, Algona, and Elmore Cement & Tile Co., Elmore, Minn. Noted Sept. 30.

★**Ia., Harlan**—Shelby Co. let contract building Nishnabotna River D. D. 10, involving 1,102,564 cu.yd. excav., to Wickham Bros., 19 Scott St., Council Bluffs, $214,890.

★**Ia., Wapello**—Drainage—Louisa Co. let contract building D. D. 23, to Layton Constr. Co., Muscatine, $76,085. Noted Sept. 23.

★**Minn., Mankato**—Ditch—Blue Earth Co. let contract for tile work for building Co. Ditch 56, to Bisballe Constr. Co., Tyler, $222,500; open work, to E. D. Barr, Gibbon, $47,126; dam, to T. M. Thomson & Co., 1012 Plymouth Bldg., Minneapolis, $7,325. Noted Sept. 9.

★**Ontario**—Excavation—Dept. Provincial Highways, Toronto, let contract for 60,000 cu.yd. excav. work on Provincial Highways in London and Biddulph Twps., Contrs. 150 and 151, Webster Constr. Co., London; Contrs. 152 and 153, to Campbell & Butler, London. Total cost, $60,000.

Industrial Works

PROPOSED WORK

Me., Augusta—Fidelis Phonograph Corp. plans to build brick and concrete addition to plant. About $75,000. Architect not selected.

Conn., Hartford—R. Kolodney, Allyn St. and Union Pl., plans to build 2 story, brick and steel factory. About $50,000. Architect not selected.

Conn., Hartford—Travelers Insurance Co., 700 Main St., plans to build concrete, brick and steel printing plant, rein.-con. flooring, concrete foundation, on Albany Ave. About $100,000.

Conn., New Haven—New Haven Pulp & Board Co., Green and East Sts., plans to build 2 story, brick and concrete addition to plant. About $50,000. Fletcher-Thompson, Inc., 1087 Broad St., Bridgeport, archts.

N. Y., East Syracuse—Chapin & Baker Mfg. Co., Edison St., plans to construct three 1 story buildings, 40 x 60 ft., 40 x 98 ft. and 66 x 180 ft., on Manlius St. Architect not selected.

N. Y., New York—United Electric Light & Power Co., 130 East 15th St., soon lets contract building power house, on 134th St. and East River. About $4,500,000. T. E. Murray, Inc., 55 Duane St., engr.

N. J., East Orange—C. B. Comstock, engr. and archt., 110 West 40th St., New York City, soon lets contract constructing 3 story top addition to present building and 5 story side addition, rein.-con., steel and brick, rein.-con. flooring, concrete foundation here, for Ward Baking Co., South Blvd. and St. Marys St., New York City.

N. J., Maurer—H. S. Ferguson, archt., 200 5th Ave., New York City, soon lets contract building 2 story, concrete and brick plant, here, for Barber Asphalt Paving Co., 233 Bway., New York City.

Pa., Chester—Stalium Metals Corp. of America, 226 Lafayette Bldg., Phila., plans to build plant, here. About $500,000. R. Beard, 2349 North Woodstock St., Phila., archt.

Pa., Cresson—Penn-Cresson Ice Cream Co., having plans prepared by McCormick Co., engrs., Century Bldg., Pittsburgh, for 2 story, 50 x 90 ft. steel and brick plant, brick and concrete foundation. About $50,000.

S. C., Greenville—Peerless Pole & Ladder Co. opens bids about Nov. 1, building 1 story, 60 x 160 ft., concrete and steel factory, outside city limits. About $50,000. J. E. Sirrine Co., Greenville, engrs. and archts.

S. C., Union—City Gas Co. plans to build new gas plant. About $150,000. T. McNally, pres.

Fla., Jacksonville—Monarch Milling Co., 144 Cowart St., Chattanooga, Tenn., plans to build warehouse, terminals, and milling plant, at Commodore Point, here. About $50,000.

Fla., Leesburg—Grass Fiber Pulp & Paper Corp. plans to build three 1 story mills, steel. About $75,000. C. F. Logan, 1228 Crittenden St., N. W., Wash., D. C., engr.

O., Cleveland—Atlas Fdry. Co., Shaw Ave., had plans prepared by J. E. Moore, archt. and engr., 1900 Euclid Ave., for 1 story, 50 x 100 ft., brick and steel addition to foundry, brick foundation, on West 69th St. About $40,000.

Industrial Works (Continued)

O., Cleveland—St. Hyacinths Church, East 61st St. and Francis Ave., soon lets contract building 40 x 83 ft. boiler house and garage. About $60,000. L. S. Redmer, pastor. W. C. Jansen, 402 Electric Bldg., engr.

O., Zanesville—Baltimore & Ohio R.R., Market and 2d Sts., having preliminary plans prepared for electrical and heating plants, brick and steel, at railroad shops, on Lee St. About $300,000. H. A. Lane, Baltimore, ch. engr.

Ind., Ft. Wayne—Ft. Wayne Storage Co., Harrison and Grand Sts., plans to build 6 story, 95 x 194 ft., storage warehouse, on Francis and Hayden Sts. About $500,000. Moore & Dunford, 1st Natl. Bank Bldg., Chicago, engrs.

Ind., Ft. Wayne—Day & Zimmerman, archts. and engrs., 611 Chestnut St., Phila., Pa., receive bids about Nov. 18, building 1 and 2 story, manufacturing plant, rein.-con. and steel, on Pontiac St, here, for International Harvester Co. of America, Inc., 606 South Michigan Ave., Chicago. About $2,000,000. Noted Oct. 7.

Mich., Detroit—Motor City Stamping Co., c/o Stahl & Kinsey, archts., 435 Woodward Ave., plans to build 1 story, 98 x 100 ft., brick and mill construction factory, rein.-con. flooring, brick foundation, on Knodell St. along tracks of Belt Line Ry. About $70,000.

Mich., Detroit—H. F. Tanghe Co., 79 Pine St., having plans prepared by Brill & Tanghe, archts., 86 Michigan Ave., Milwaukee, for 2 story, 120 x 140 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation.

Wis., Appleton—Chicago & Northwestern R.R., 226 Jackson Blvd. W., Chicago, had plans prepared by J. Miller, archt., c/o owner, for 1 and 2 story, 43 x 215 ft. concrete and brick freight depot and office, here. About $75,000. S. G. Strickland, mgr.

Wis., Denmark—Danish Pride Milk Co., Sheboygan, plans to build 3 story, 75 x 250 ft., brick, rein.-con. and steel condensory here. About $150,000. J. F. Enz, pres. Architect not selected.

Wis., Fond du Lac—Sheboygan Dairy Products Co., 936 North Water St., Sheboygan, having plans prepared by B. E. Mehner, archt., 6 East Division St., for 2 story, 120 x 300 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on West Division St., here. About $100,000.

Wis., Jefferson—Jefferson Rubber Co. plans to build 2 story, 80 x 320 ft., brick, rein.-con. and steel factory, brick foundation, on Main St. About $100,000. E. E. Schulz, secy. Architect and engineer not selected.

Wis., Madison—Sheboygan Dairy Products Co., 936 North Water St., Sheboygan, plans to build 2 story, 60 x 150 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on North Wilson St., here, to replace one destroyed by fire. About $100,000. Architect not selected.

Wis., Oconomowoc—W. S. King having plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, for 1 story, 90 x 160 ft., brick, steel and rein.-con. garage, rein.-con. flooring, on Main St.

Wis., Oostburg—Danish Pride Milk Co., Sheboygan, plans to build 3 story, 75 x 250 ft., brick, rein.-con. and steel condensory here. About $150,000. J. F. Enz, pres. Architect not selected.

Wis., Port Washington—Turner Mfg. Co. soon receives bids building 1 story, 60 x 180 ft., foundry, machine shop, etc., brick, rein.-con. and steel, brick foundation, on Main St. About $150,000. W. A. Engelhardt, mgr. F. D. Chase, Inc., Michigan Ave., Chicago, Ill. archt. and engr.

Wis., Sheboygan—Hartenberger Double Wall Silo Co., Sheboygan Falls, plans to build 2 story, 70 x 110 ft., brick, rein.-con. and steel factory, concrete foundation here. About $50,000. Architect and engineer not selected.

Wis., Sheboygan—Optenberg Iron Wks., 7th St. and Clara Ave., plans to build 1½ story, 40 x 100 ft., machine and blacksmith shop, brick, rein.-con. and steel, brick foundation. About $100,000. R. W. Busse, mgr. Architect not selected.

Wis., Two Rivers—Two Rivers Millwork & Cabinet Co. plans to build 2 story, 60 x 150 ft., brick, rein.-con. and steel factory, brick foundation, on 17th and Monroe Sts. About $50,000. Architect and engineer not selected.

Ia., Marshalltown—Victor Heating Co. plans to build 1 story addition to plant to cover 48,000 sq.ft. floor space. Architect not selected.

Minn., Minneapolis—Northern Jobbing Co., 3600 Loomis Pl., Chicago, plans to build 10 story warehouse, on 3d St. and 6th Ave. N., here. About $500,000. Architect not selected.

Mo., Kansas City—Opie Brush Co. plans to build 4 story factory at 610-14 Southwest Blvd. About $100,000. Architect not selected.

Tex., Eastland — Ringling, Eastland & Gulf R.R. plans to build round house, machine shops and warehouse. C. H. Chamberlain, Eastland, engr.

N. S., Stewiache—Dickie & Co., Ltd., plans to rebuild mills recently destroyed by fire. Loss $150,000.

Que., Montreal—Downtown Garage, Ltd., 63 Prince St., plans to build garage. About $100,000.

Ont., London—Service Motor Truck Co., Wabash, Ind., plans to build plant on Chelsea Green, here, for manufacturing malleable iron castings. About $150,000.

Ont., Toronto—Dominion Envelope & Carton Co., 150 Duchess St., plans to build 1 story, 300 x 500 ft. brick and steel factory, concrete foundation, at Eastern Gap. About $500,000. Architect not selected.

Ont., Toronto—Williard Storage Battery Co., East 131st St. and St. Clair Ave., Cleveland, O., plans to build plant on Wiltshire Ave., here. About $500,000.

Man., Winnipeg—Manitoba Motor Cars, Ltd., 505 Great West Permanent Bldg., plans to build 2 story, 50 x 150 ft. assembling plant, rein.-con., on Academy Rd. and Lindsay St. About $70,000. F. H. Parr, 202 Belgia Bldg., Garry St., archt. and engr.

BIDS DESIRED

Mass., Boston—H. B. Alden, archt., 15 Exchange St., receiving bids building 4 story addition to publishing plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Avery St., for Boston Herald, 171 Tremont St.

Mass., Worcester—E. T. Chapin, archt., State Mutual Bldg., receiving bids building 2 story, 58 x 135 ft. addition to garage, concrete, brick and steel, rein.-con. flooring, concrete foundation, for Hotel Garage, Portland St. About $75,000.

Mass., Worcester—J. Rice, archt., 306 Main St., receiving bids building 2 story, 150 x 180 ft., rein.-con. and brick garage, rein.-con. flooring, concrete foundation, on Pleasant St., for E. F. Mathews, 42 Chatham St. About $200,000. Noted Sept. 30.

N. Y., S. I., West New Brighton—Until Oct. 29, by Dept. Pub. Welfare, Municipal Bldg., New York City, furnishing labor and material for constructing addition to boiler house, at Sea View Hospital, here.

N. J., Florence — J. W. Levin, archt., Liberty Bldg., Phila., receiving bids constructing 2 story, 50 x 100 ft. factory, brick, for Florence Fdry. Co. About $50,000.

N. J., Hoboken—Until Oct. 27, by Ballinger & Perrott, archts. and engrs., 1328 Bway., New York City, building 2 story, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Clinton St., here, for Chocolate Manier Co. About $100,000. Noted Sept. 23 as "day labor."

Pa., Warren—Struthers Wells Co., 1003 Pennsylvania Ave. W., receiving bids building 1½ story, 40 x 86 ft. boiler house and 68 x 140 ft. forge shop, brick and steel, concrete foundation. About $100,000. Private plans.

Ga., Augusta—Until Nov. 1, by W. P. White, building brick and timber stock yards, brick foundations, to replace those recently destroyed by fire. About $50,000.

Wis., Fond du Lac—Fountain City Ice Cream Co., 218 South Main St., and B. E. Mehner, archt., 6 East Division St., receiving bids building 2 story, 60 x 112 ft. rein.-con. dairy plant, rein.-con. flooring, concrete foundation. About $75,000. Noted Sept. 23.

Cal., San Francisco — Chamberlain & Proctor receiving bids building 4 story, 80 x 90 ft., rein.-con. garage, on Stevenson St. About $100,000. O'Brien Bros., 240 Montgomery St., archts. Noted June 10.

Sask., Elbow—I. Todd receiving bids building 2 story, 40 x 80 ft. rein.-con. and brick garage, concrete foundation. About $50,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Great Works**—Penobscot Chemical Fibre Co., 49 Federal St., Boston, let contract building 34 x 45 x 109 ft. addition to plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, to Aberthaw Constr. Co., 27 School St., Boston. About $125,000.

★**Me., Shawmut** (Fairfield P. O.)—Keyes Fibre Co., Waterville, let contract building 1 and 2 story paper plant, concrete and brick, rein.-con. flooring, concrete foundation, along Kennebec River, here, to Aberthaw Constr. Co., 27 School St., Boston. About $200,000.

★**Mass., Boston**—D. D. Allisandra, c/o Burk & Bottomley, archts., 34 School St., let contract altering brick and timber factory on Hanover St., to J. E. Locatelli Co., 46 Cornhill St. About $50,000.

★**Mass., Cambridge**—Kingston Knitting Co., 37 Kingston St., Boston, let contract building 3 story, 50 x 150 ft. mill, concrete brick and steel, rein.-con. flooring, concrete foundation, here, to Evatt Constr. Co., 161 Devonshire St., Boston. About $100,000. Noted Oct. 7.

★**Mass., Everett** (Boston P. O.)—Boston Elevated Ry Co., 108 Massachusetts Ave., Boston, will build concrete, brick and steel shops, rein.-con. flooring, concrete foundations, here. About $3,000,000. Work will be done by day labor under supervision of D. P. Robinson & Co., 125 East 46th St., New York City, archts. and engrs. Noted Oct. 7.

★**Mass., Fitchburg**—Falulah Paper Co., Falulah Rd., let contract building 1 story, 30 x 202 ft. addition to plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, to S. M. Green Co., 293 Bridge St., Springfield. About $50,000.

★**Mass., Gardner**—C. H. Hartshorn, Main St., will build 3 story, 60 x 64 ft. addition to plant, brick and mill construction, concrete foundation, on Main St. About $350,000. Work will be done by day labor.

★**Mass., South Boston** (Boston P. O.)—H. B. S. Prescott, 259 Summer St., let contract altering factory, on Stillings St., to Hauser-Swift Co., 88 Broad St., Boston. About $50,000. Natl. Metal & Rubber Co., 39 India Wharf, lessee.

★**Mass., South Boston** (Boston P. O.)—Waldorf Lunch Co., 169 High St., Boston, let contract building 1 story, 80 x 135 ft. brick and steel garage, rein.-con. flooring, concrete foundation, on D St., here, to W. E. Barber, 27 Cornhill St., Boston. About $50,000.

★**Mass., Turners Falls**—Montague Machine Co., 2 Ave. A, let contract building concrete, brick and steel machine shop, rein.-con. flooring, concrete foundation, on 15th St., to Foundation Co., 233 Bway., New York City. About $125,000.

★**Mass., Westfield**—Vitrified Wheel Co., Emery St., let contract building 2 story, 45 x 100 ft. addition to plant, brick and steel concrete foundation, to P. J. Mahoney, 46 Orange St. About $40,000.

★**R. I., Pawtucket**—J. and B. Costello, East Ave., let contract building 2 story, 50 x 185 ft. brick and steel factory, concrete foundation, to Cruise & Smiley Constr. Co., 12 East Ave.

★**R. I., Providence**—Revere Rubber Co., 355 Valley St., let contract building 3 story, concrete, brick and steel factory, rein.-con. flooring, concrete foundation, on Valley and Hemlock Sts., to Cruise & Smiley Constr. Co., East Ave., Pawtucket. About $50,000.

★**Conn., Ansonia**—Amer. Brass Co., 58 Liberty St., will build 1 story, 340 x 400 ft. addition to factory, brick, concrete and steel, rein.-con. flooring, concrete foundation, cost to exceed $725,000. Work will be done by day labor. Noted Oct. 7.

★**Conn., Greenville** (Norwich P. O.)—United States Finishing Co. will build 1 story, 40 x 110 ft. concrete, brick and steel boiler plant, rein.-con. flooring, concrete foundation. About $300,000. Work will be done by day labor under supervision of Day & Zimmerman, archts. and engrs., 611 Chestnut Sts., Phila.

★**Conn., New Haven**—New Haven Dairy Co., 201 Hazel St., New Haven, let contract building 1 and 3 story addition to plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Walnut St., to M. J. Gibbud Co., 730 Chapel St., New Haven. About $35,000.

★**N. Y., Brooklyn**—C. Nardello, c/o W. C. Winters, archt. and engr., 106 Van Sicklen Ave., will build 1 story, 115 x 140 ft. brick and steel garage, rein.-con. flooring, concrete foundation, on Fulton St. About $90,000. Work will be done by day labor.

★**N. Y., Buffalo**—A. Victor & Co., 514 Main St., let contract building 2 story, 118 x 185 ft. warehouse, at 70-82 Lakeview Ave., to G. J. Metzger, 676 Genesee St. About $100,000.

★**N. Y., New York**—Transit Comn., 49 Lafayette St., let contract building addition to shops on Lenox Ave. and 148th St., to Bainbridge Constr. Co., 52 Vanderbilt Ave., $456,083. Noted Sept. 16.

★**N. Y., Rosebank** (Staten Island P. O.)—L. A. Dreyfuss let contract building 2 story, concrete and brick garage, rein.-con. flooring, concrete foundation, to Barney-Ahlers, 110 West 40th St., New York City.

★**N. Y., Syracuse**—W. D. Andrews, 216 East Washington St., let contract building 2 story, 91 x 217 ft., concrete and steel garage, rein.-con. flooring, concrete foundation, at 617 West Genesse St., to F. Grossman, Syracuse. About $50,000; cost plus percentage basis.

Industrial Works (Continued)

*N. Y., Syracuse—Standard Oil Co., 26 Bway, New York City, let contract building 1 story, 100 x 140 ft. and 60 x 122 ft. concrete warehouse, on Bear and Solar Sts., to H. D. Best & Co., 949 Bway, New York City. About $70,000.

★Pa., Kensington (Phila. P. O.)—A. Taylor & Co., c/o G. S. Idell, archt., 1705 Chestnut St., let contract building 1 story, 60 x 200 ft. wire factory, brick, on Cedar and Venango Sts., to J. M. Kennedy, 3025 Boudinot St. Noted Sept. 30.

★Pa., Lewistown—Keystone Motors Co., Main and 3rd Sts., will build 2 story, 181 x 201 ft., rein.-con., brick and steel garage. About $100,000. Work will be done by day labor.

★Pa., Phila.—Standard Crown Co., Hope and Palmer Sts., let contract building 2 story, 67 x 212 ft. bottle top factory, concrete and brick, on Clearfield and Masher Sts., to A. Chambley, 2057 Summer St. About $100,000. Noted May 13.

★D. C., Wash.—W. W. Griffith, 1st and N Sts., let contract building motor truck factory, to E. H. Mosher, 539 Munsey Bldg. About $300,000.

★D. C., Wash.—H. H. Warwick, archt., 535 Munsey Bldg., let contract building 2 story, rein.-con. factory and store, on 17th and L Sts., to E. H. Mosher, 538 Munsey Bldg. About $100,000. Owner's name withheld.

★W. Va., MacDonald—New River Co. let contract building 1 story, brick and steel factory and machine shop, to cover 35,000 sq.ft. floor space, to Austin Co., Union Arcade, Pittsburgh, Pa. Cost between $225,000 and $250,000. Noted Oct. 7.

★Ala., Brmingham—Connors Steel Co., Brown-Marx Bldg., will build 1 story, 77 x 400 ft. mill, steel, on Powell Ave. About $50,000. Work will be done by day labor.

*Tenn., Chattanooga—Mutual Enamel Wks. Co. let contract building concrete and steeel foundry, rein.-con. flooring, concrete foundation, to D. P. Robinson, 125 East 46th St., New York City. About $800,000.

★O., Chagrin Falls—Adams Bag Co. let contract building 1 story, brick and steel addition to paper mill, brick foundation, to Myers-Kuhn Constr. Co., Metropolitan Bldg., Cleveland. About $50,000. Noted Sept. 2.

★O., Cleveland—Fisher Body Co., Oakland and Piquette Sts., let contract building 1 story, 95 x 114 ft., rein.-con., brick and steel power house, rein.-con. flooring, brick and concrete foundation, on East 140th St. and Coit Rd. About $200,000.

★O., Cleveland—S. Silberman Co., 1233 East 38th St., let contract building 4 story, 100 x 150 ft. brick and steel warehouse, brick foundation, on Nevada Ave., to G. W. Feaga Co., 5927 Euclid Ave. About $100,000.

★O., Columbiana — Columbiana Boiler Wks. let contract building 1 and 2 story, irregular shaped, brick and steel extension to factory, brick and concrete foundation, to Austin Co., Union Arcade, Pittsburgh. About $50,000.

★Ind., Anderson—Lynch Glass Co. let contract building 1 story, 50 x 120 ft., brick and steel factory addition, brick foundation, to H. K. Ferguson Co., 6521 Euclid Ave., Cleveland. About $60,000.

★Mich., Detroit—Detroit Packing Co., 40 Bushey St., let contract building 2 story, brick, steel and concrete plant, rein.-con. flooring, brick foundation, on Springwells Ave., to Patterson Constr. Co., 907 Ford Bldg. About $50,000.

★Ill., Chicago—Grant Baking Co., 3021 West Lake St., let contract building 2 story, 100 x 150 ft., bakery, rein.-con., rein.-con. flooring, concrete foundation, on Lake St. near Sacramento Blvd., to G. Thomson & Son, 30 North La Salle St. About $175,000.

★Ill., Clearing—Hamler Boiler & Tank Co., 3906 South Halsted St., Chicago, let carpentry and masonry contract building 1 and 2 story, 100 x 300 ft., concrete, brick and steel factory, concrete flooring, on 66th St. and 60th Ave., here, to W. J. Nelson, 1537 West 63rd St., Chicago. About $500,000.

★Wis., Oconto—Montana Tractor Co. let general contract building 1 story, 150 x 200 ft., brick, rein.-con. and steel factory, rein.-con. flooring, brick foundation, on Main St., to Austin Co., 208 South La Salle St., Chicago. About $150,000.

★Minn., Duluth — G. Phillips, comr. Duluth Water & Light Dept., let contract constructing 3 story, 50 x 140 ft. concrete, brick and steel warehouse and office building, rein.-con. flooring, concrete foundation on 1st St., W., to McLeod & Smith, Sellwood Bldg., $122,283. Noted May 13.

★Tex., Beaumont—Beaumont Shipbuilding & Dry Dock Co. will build machine shop. About $100,000. Work will be done by day labor.

★Ont., Collingwood—Imperial Steel & Wire Co., Hurontario St., let general contract building 3 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, to W. A. Tom Constr. Co., Ltd., Hurontario St., brick work to A. Courtes, Collingwood. About $150,000. Noted Sept. 9.

★Ont., Niagara Falls—Oneida Community Co., Niagara Falls, N. Y., let contracts constructing 3 brick buildings, concrete foundations, for manufacturing steel traps, manufacturing building, to Bancroft Jones Co., Niagara Falls, N. Y.; finish building and heat treating building, to N. McLeod, Kent Bldg., Toronto. Total cost, $200,000.

*Ont., Smooth Rock Falls—Mattagami Pulp & Paper Co. let general contract constructing 2 story mill and store building, concrete, stone foundation, to Carter Halls, Aldinger & Co., Ltd., Union Bank Bldg., Winnipeg, Man.; tile, to Natl. Fireproofing Co., Dominion Bank Bldg., Toronto; electrical work to Reed & Son, Cochrane. Total cost $490,000.

★Ont., Toronto—Northern Aluminum Co. Ltd., Sterling Rd., let contract building rein.-con. and brick factory, concrete foundation, to Archibald & Holmes, Continental Life Bldg. About $200,000.

★Ont., Welland—J. Deere Mfg. Co., Welland Jct., let contract building 3 story, rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, here, to Diffin Constr. Co., Main St. E. About $50,000.

Buildings

PROPOSED WORK

Mass., Westfield—Church and School—St. Joseph Polish Natl. Catholic Church, 61 Washington St., soon lets contract building 1 and 2 story, brick and steel, concrete foundation, on Main St. and Clinton Ave. About $100,000. Howes & Howes, High St., Holyoke, archts. Noted Sept. 16.

Mass., Wilbraham—Academy—Wilbraham Academy plans to build addition to academy. About $150,000. Architect not selected.

Mass., Worcester—College—Holy Cross College, College St., plans to construct 5 additions, consisting of 4 story dormitory, cost $300,000; 2 story science and laboratory building, $350,000; assembly hall, $300,000, 4 story office and administration building, $300,000, concrete, brick and steel, rein.-con. flooring, concrete foundations on campus. Sheehaw & Colleary, archts., 120 Boylston St., Boston. Noted Sept. 16.

R. I., Providence—School—McKim, Mead & White, archts., 101 Park Ave., New York City, soon let contract building 3 story, 57 x 125 ft. brick and stone, here, for St. Georges School, Newport. About $200,000.

Conn., Hartford — School — Northwest School Dist. having revised plans prepared by W. D. Johnson, arch., 174 Bond St., and soon receives bids building 2 story, concrete, brick and steel, on Holcomb St. About $235,000. Former bids rejected. H. U. Tuttle, chn. Noted June 24.

Conn., Torrington — Gymnasium — Y. M. C. A., 113 Main St., had plans prepared by W. E. Hunt, archt., 197 Water St., for 4 story, brick and concrete, on Prospect St. About $150,000.

N. Y., Central Islip—Hospital—State Hospital Comn., Capitol, Albany, opens bids about Feb. 5, constructing 2 brick, steel and stone buildings for Insane Asylum, here, brick foundations. About $350,000. L. F. Pilcher, Hall of Records, New York City, archt. and engr. Noted April 15.

N. Y., Jamestown—Schools—City election Nov. 5 to vote on $550,000 bonds to build schools.

N. Y., Kings Park—Asylum—State Hospital Comn., Capitol, Albany, receives bids about Feb. 5, constructing 2 brick, steel and stone buildings for Insane Asylum, brick foundations, here. About $350,000. L. F Pilcher, Hall of Records, New York City, archt and engr. Noted April 15.

N. Y., New York—Church—Chelsea Methodist Episcopal Church, c/o Polhemus, McKenzie & Coffin, archts. and engrs., 15 East 40th St., plans to build brick and stone, brick foundation, on 178th St. About $400,000.

N. Y., New York—Church—Peoples Home Methodist Episcopal Church, c/o Polhemus, McKenzie & Coffin, archts. and engrs., 15 East 40th St., plans to build brick and stone, brick foundation, at 542 East 11th St. About $350,000.

N. Y., New York—School—Bd. Educ., 500 Park Ave., having plans prepared by C. B. J. Snyder, archt and engr., Municipal Bldg., for 5 story, brick and stone, brick foundation, on St. Pauls Ave., near Washington Ave. About $400,000.

N. Y., New York—School—Lincoln School for Teachers, c/o Starrett & Van Vleck, archts. and engrs., 8 West 40th St., having plans prepared for 5 story, 100 x 150 ft., brick, stone and steel, brick foundation, on 5th Ave. and 102d St. About $1,000,000.

N. Y., Olean—Hospital—Bd. Dirs. Ol General Hospital plans campaign to ra $100,000 to build new hospital. E. W. Fi gerald, chn. Campaign Com.

N. Y., Rochester—Schools—Bd. Educ. h plans prepared by E. S. Gordon, archt., 3 Sibley Bldg., for 65 x 180 ft. P. S. 35, Field St., 100 x 200 ft., P. S. 43, on Ly Ave, 40 x 130 ft., P. S. 33, on Grand Av also 1 story, 200 x 250 ft, P. S. 1, o Hillside Ave. All above to be non-fireproo

N. J., Trenton—Church and Auditorium Blessed Sacrament Church plans to bui 119 x 150 ft. steel, brick and stone, o Bellevue Ave. About $100,000. Addres T. Walsh, 153 North Warren St., bishop.

Pa., Phila.—Temple—Musicians Club, 11 North 18th St., having preliminary sketche made by F. E. Hahn, archt. and engr., 111 Chestnut St., for concrete and brick temp of music. About $200,000.

Md., Baltimore—School—St. Marys Industrial School, Wilkens Ave. extension soon receives bids constructing 3 story classroom building and dining hall, concrete brick and steel, concrete foundation. About $200,000. H. I. Kavanagh, 913 North Calvert St., archt.

D. C., Wash.—Office—Methodist Episcopal Bd. Temperance, Prohibition and Pub. Morals, 204 Pennsylvania Ave., S. E. had plans prepared by Ballinger & Perrot archts. and engrs., 329 South Broad St., for 6 story, brick and marble. About $500,000.

D. C., Wash.—Office, etc.—Stern & Tomilson, archts., Continental Trust Bldg., preparing plans for 8 story, 132 x 135 ft About $350,000. Owner's name withheld.

N. C., Southern Pines—Hotel—S. B. Richardson and A. S. Newcomb plan to build hotel. About $275,000.

Ga., Columbus—Business—Illges Co. plans to build 3 story, 50 x 136 ft. concrete, brick and steel. About $100,000. J. P. Illges, pres. and treas.

Fla., Cocoanut Grove—Hotel, etc.—See "Miscellaneous."

O., Bloomville—School—Bd. Educ. receives bids about Jan. 1, building 2 story, 74 x 112 ft. school and 38 x 57 ft. auditorium, fireproof. About $125,000. Glass & Austin, archts., Gas Co. Bldg., Columbus, revising plans.

O., Cleveland—Theatre and Commercial—Hundred-Fifth St. Clair Co., c/o Lehman & Schmitt, archts., Electric Bldg., having plans prepared for 1 and 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 105th St. and St. Clair Ave. About $150,000.

O., Garfield Heights (Cleveland P. O.)—School—Bd. Educ., Bedford, plans election Nov. 2, to vote on $100,000 bonds to build 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at Stop 5, here. G. Osborn, clk. W. H. Nicklas, 1900 Euclid Ave., Cleveland, archt.

O., Maple Heights (Bedford P. O.)—School—City election Nov. 2, to vote on $300,000 bonds to build 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at Stop 11½. W. W. Blanchard, pres. Bd. Educ. Architect not selected.

O., Springfield—School—Bd. Educ. having plans prepared by O. D. Howard, archt., 8 East Broad St., Columbus, for 2 story, 110 x 128 ft., brick and concrete, on Barnett Rd. About $225,000.

O., Youngstown — Civil Auditorium — Stambaugh Memorial Assn., Dollar Bank Bldg., plans to build 300 x 300 ft. About $1,000,000. Architect not selected.

Mich., Ann Arbor—Dormitory—S. E. Remey and C. M. Agree, archts., Whitney Office Bldg., Detroit, preparing plans for 4 story, 60 x 200 ft., rein.-con., brick, steel and stone, concrete foundation, here. About $175,000. Owners name withheld.

Mich., Bessemer—Hospital—Gogebic Co. election Nov. 2, to vote on $200,000 bonds to build 3 story, brick and concrete, rein.-con. flooring, concrete foundation, here. J. Luxmore, clk.

Ill., Chicago—Bank and Office—Graham, Anderson, Probst & White, archts. and engrs., Ry. Exch. Bldg., soon let contract building 14 story 60 x 165 ft. concrete and steel, on Jackson Blvd. and La Salle St., for Federal Reserve Bank. About $3,000,000. Noted April 1.

Wis., Appleton—Office—See "Industrial Works."

Wis., De Pere—Science Hall—St. Norberts College, Boyle Hall, having plans prepared by W. E. Reynolds, archt., 113 South Roosevelt St., Green Bay, for 3 story, 80 x 260 ft., rein.-con. and brick. About $400,000. B. H. Pennings, pres.

Wis. Elk Mound—School—Bd. Educ. rejected bids received Oct. 7, building 2 story, 60 x 100 ft., concrete and brick, rein.-con. flooring, concrete foundation. About $100,-

Buildings (Continued)

000. Work will be readvertised. E. J. Hancock, Eau Claire, archt.

Wis., Fond du Lac—Hotel—Fond du Lac Hotel Realty Co., c/o W. C. Loegering, Forest Ave. Hotel, 170 Forest Ave., had plans prepared by H. B. Kamschulte, archt., North 8th St., Manitowoc, for 4 story, 70 x 210 ft., brick, rein.-con. and steel, brick foundation, on Forest Ave. About $200,000.

Wis., Madison—Hospital—University of Wisconsin soon lets contract building rein.-con. and brick, rein.-con. flooring and foundation, on University Ave., between Charter and Lorch Sts. About $1,000,000. A. Peabody, state archt. Noted Aug. 9.

Wis., Sheboygan — Club — Knights of Columbus, 728 Wisconsin Ave., having plans prepared by Juul & Smith, archts., Imig Bldg., for 2 story, 50 x 120 ft., brick, rein.-con. and steel, concrete foundation, on North 8th and Ontario Sts. About $100,000. H. Settling, chn. Noted Oct. 14.

Ia., Sioux City—School—Bd. Educ. plans to build 3 story, 130 x 130 ft. rein.-con. and brick, on 7th and Jackson Sts. About $250,000. Beuttler & Arnold, 235 Grain Exch., archts.

Minn., Aitkin—High School—Bd. Educ. plans to build 3 story, rein.-con. brick and tile. About $400,000. K. T. Snyder, 738 Plymouth Bldg., Minneapolis, archt. H. S. Swanson, Crosby, engr.

Minn., Averill—School—Bd. Educ. having plans prepared by J. H. Hess, archt., Moorhead, for 2 story, rein.-con. and brick. About $100,000. D. Gytri, clk.

Minn., Minneapolis—High School—Bd. Educ., City Hall, receives bids about Nov. 25, building 4 story, 220 x 300 ft. rein.-cno., brick, tile and stone, on 20th Ave. N. E., and Quincy St. G. F. Womrath, business supt. About $700,000. Noted July 22.

Minn., Minneapolis—High School—Roman Catholic Diocese plans to build high school here to accommodate 800 pupils. (See item under "Colleges," St. Paul.)

Minn., Minneapolis—Library—State Bd. Control, Capitol, St. Paul, having plans prepared by C. H. Johnston, archt., 715 Capitol Bank Bldg., St. Paul, building 4 story, 40 x 400 ft., rein.-con., brick and tile, on State University campus, here. About $1,000,000.

Minn., Northfield—College—Carleton College conducting campaign to raise $3,150,000 to remodel some of present buildings and construct new main building, cost $600,000; chemistry building, $300,000; women's central building, $250,000; art and museum, $200,000; physics building, $190,000; men's and women's gymnasium, $290,000; dormitories, $750,000; dining hall for women, $90,000, etc. D. C. Cowling, pres. Architect not selected.

Minn., St. Paul—Colleges—Roman Catholic Diocese conducting campaign to raise $5,000,000 to build preparatory seminary and normal school, also dormitory, science hall, dining hall, and power plant, at College of St. Thomas, Merriam Park, library at College of St. Catherine, Randolph and Cleveland Aves.

Minn., St. Paul — Home—Bd. Trustees, c/o J. Levy, pres., 41 East 7th St., having plans prepared by C. H. Johnston, archt., 715 Capitol Bank Bldg., for Jewish Home for Aged, 2 story, rein.-con. and brick, at 75 Wilkin St. About $100,000.

Kan., Newton—Dormitory and Science Hall—Bethel College having plans prepared by L. Schmidt & Co., archts., 121 North Market St., Wichita, for 3 story, 85 x 150 ft. rein.-con., steel and brick, rein.-con. flooring, rock and concrete foundation. About $400,000.

S. D., Vermilion—School—City voted $150,000 bonds to build additions to high and grade schools. J. S. B. Johnson, supt. Bd. Educ.

Wyo., Casper—Home—B. P. O. E. having plans prepared by Garbutt, Weidner & Sweeney, archts., Oil Exch. Bldg., for 2 story, 50 x 140 ft. brick and stone, on South Center St. opposite City Hall. About $175,000. Work will probably be done by day labor.

Ark., Little Rock — Hospital—Baptist State Hospital Comn. receives bids about Dec. 1, building 4 story. About $500,000. J. E. Allport, dir.

Okla., Oklahoma—College—Oklahoma City College plans to build 2 story (20 room) college also develop campus, on 23d and Ames Sts. About $200,000.

Col., Denver—Church—Fifth Church of Christ Scientists, 3009 East Colfax Ave., having preliminary plans prepared by H. W. J. Edbrooke, archt., Tabor Grand Bldg., for 2 story 90 x 135 ft., rein.-con., brick and terra cotta, on Colfax and Columbine Aves. About $100,000.

Ore., Portland—Emanuel Hospital, 212 Stanton St., having plans prepared by E. Kroner, archt., 301 Spaulding Bldg., for 6 story hospital and 4 story nurses home and power house, on Commercial and Stanton Sts. About $300,000.

Que., Quebec—School—Roman Catholic School Comn. authorized expenditure of $300,000 for new schools.

Ont., Hamilton—Hospital and Nurses Home—Hospital Bd. plans to build 2 and 3 story brick, rein.-con. flooring, concrete foundation. Cost between $750,000 and $900,000. T. H. Pratt, chn. Architect not selected.

Ont., Kingston—Hotel—City endeavoring to raise $450,000 (by popular subscription) to build 8 or 10 story, brick, steel and tile concrete foundation. Architect not selected.

Ont., St. Catharines — Collegiate — Bd. Educ. plans to build 3 story, 20 room, concrete, brick and steel, concrete flooring and foundation, here. About $400,000. Architect not selected.

Ont., Toronto — Schools — Bd. Control voted $155,000 bonds to enlarge high schools, and $776,000 for additions to public schools. Architect not selected.

Ont., Windsor—School—Bd. Educ. having plans prepared by A. H. McPhail, archt., Bd. Trade Bldg., for 2 story, 8 room, brick and steel addition to Wyandotte St. School, concrete flooring and foundation. About $150,000.

BIDS DESIRED

Mass., Norwood—Business—M. Dana, 202 Pemberton Bldg., Boston, receiving bids building 2 story, 60 x 135 ft. brick and steel, concrete foundation, on Washington St. W. G. Upham, 15 Marion Ave., archt.

Mass., Springfield—High School—Until Nov. 3 by Bd. Educ. building 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on State St. About $800,000. H. L. Sprague, 310 Main St., archt. Noted July 22.

Mass., Ware—Hospital—E. F. Stevens, archt., 9 Park St., Boston, receiving bids building 2 story, concrete and brick, rein.-con. flooring, concrete foundation, on South St., for May Lane Hospital. About $100,000.

N. Y., Brooklyn—Hospital—Until Dec. 10, by State Hospital Comn., Albany, constructing brick, steel and stone buildings, for State Hospital, here, brick foundations. About $3,000,000. L. F. Pilcher, Hall of Records, New York City, archt. and engr.

N. Y., Cortland—Normal School—Until Jan. 2, by State Bd. Educ., Albany, constructing buildings for Normal School, brick, steel and stone, brick foundations, here. About $1,750,000. L. F. Pilcher, Hall of Records, New York City, archt. and engr. Noted May 27.

N. Y., Great Neck—Schools—Until Oct. 26, by Bd. Educ., building two 2 story, brick and stone, brick foundations. About $400,000. Former bids rejected. N. S. Bessell, 56 West 45th St., New York City, archt. and engr. Noted Sept. 16.

N. Y., Ossining—Prison—Until Dec. 6, by State Prison Bd., Albany, building brick, steel and stone addition to state prison, here, concrete foundation. About $325,000. L. F. Pilcher, Hall of Records, New York City, archt. and engr.

Pa., East Conemaugh (Johnstown P. O.) —School—Until Nov. 1, by D. W. Long, secy. Bd. Educ., 237 Main St., Conemaugh, building 3 story, 80 x 120 ft. rein.-con. and brick, on 1st and Locust Sts. About $110,000. J. A. Reed, 314 3rd St., Conemaugh, archt. Noted Sept. 9.

Pa., Phila.—Hospital—Until Oct. 26, by Willing & Simms, archts., 1627 Sansom St., constructing 3 story, 55 x 145 ft. administration building, rein.-con. and stone, on Chestnut Hill, for Chestnut Hill Hospital, 8815 Germantown Ave. About $100,000. Noted Jan. 29.

Mich., River Rouge—High School—Until Oct. 27, by M. J. Higgins, secy. Bd. Educ., School Dist. 4, Ecorse Twp., at office of Van Leyen, Schilling, Keough & Reynolds, archts., 556 Cass Ave., Detroit, furnishing labor and material building high school, here.

Ia., Pocahontas—School—Until Oct. 29, by Bd. Educ., building 2 story, 56 x 110 ft., brick, rein.-con. and stone. About $100,000. F. Jensen, secy. W. E. Hulse & Co., 309 Securities Bldg., Des Moines, archts.

Minn., Duluth—Home—Until Jan. 2, by C. O. Swan, chn. Bldg. Com., Minnesota Conference Swedish Lutheran Church, Minneapolis, building 2 story, 75 x 140 ft. concrete and brick, on 39th Ave. W. and 9th St., here. About $100,000. Architect and engineer not announced.

Minn., Minneapolis — Music — Until Oct. 28 (change of date) by State Bd. Control, c/o D. Mullen, secy., Capitol Bldg., St. Paul, building 3 story, 95 x 160 ft., rein.-con., brick and stone on State University campus, here. About $500,000. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt., C. L. Pillsbury Co., 805 Metropolitan Bank Bldg., engrs. Noted Oct. 7.

S. D., Huron — Court House, etc. — Until Nov. 16 (change of date), by Beadle Co., building 3 story, 92 x 108 ft. courthouse and 2 story, 31 x 53 ft. jail, rein.-con., brick and steel. About $400,000. W. H. Gardner, aud. W. E. Hulse & Co., 320 Grain Exch., Sioux City, Ia., archts. Noted Sept. 2.

Wyo., Cheyenne—Hospital—Until Oct. 29, by S. Corson, secy. Bd. Trustees, Masonic Temple, building 50 x 180 ft., brick and steel, concrete flooring. About $300,000. Baerresen & Porter, Cheyenne, archts.

Cal., Pittsburg — Bank and Office — Contra Costa Bank of Pittsburg receiving bids building 2 story, 50 x 100 ft., rein.-con. About $100,000. B. G. McDougall, 301 Alta Bldg., San Francisco, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Arlington (Boston P. O.) — Church — Calvary Methodist Episcopal Church let contract building 1 story, 42 x 100 ft., brick, stone and steel, concrete foundation, to R. H. Howes Constr. Co., 10 P. O. Sq., Boston. Noted Sept. 30.

★Mass., Hamilton—Memorial—Town let contract building 1 story, 50 x 100 ft. brick and steel, on Asbury St., to W. P. Trussell, Main St. Noted Sept. 16.

★Mass., Lawrence—School—St. Mary's Roman Catholic Church, Haverhill St., let contract building 3 story, 50 x 100 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Ames and Lowell Sts., to P. Guerin, 127 Butler St. About $100,000. Noted Sept. 9.

★Mass., Malden (Boston P. O.)—Store—Thorp & Markys, 33 Jackson St., let contract building 1 and 2 story, concrete and brick, rein.-con. flooring, concrete foundation, on Converse Sq., to Gascoigne & Lindenthal, 43 Tremont St., Boston. Noted Oct. 14.

Mass., New Bedford—Schools—Bd. Educ. received bids Oct. 13, building (1) P. S. 1 on Rochambeau St., (2) P. S. 2 on Mt. Pleasant St., each to be 2 story, 40 x 114 ft. with 25 x 36 ft. ells, brick, rein.-con. flooring, concrete foundations, from E. J. Pardy Co., 1481 Seaview Ave., Bridgeport, (1) $659,787, (2) $649,047; J. W. Bishop Co., 109 Foster St., Worcester, (1) $730,000, (2) $717,000; E. Zeilian, Foster St., Worcester, (1) $733,000, (2) $726,000. Noted Sept. 30.

★Mass., Peabody—High School—City let contract building 2 story concrete, brick and steel, rein.-con. flooring, concrete foundation, on Central St., to C. H. Cunningham & Son Co., 23 Central Ave., Lynn. About $500,000. Noted Sept. 23.

★Conn., Derby—Y. M. C. A., 272 Main St., let contract constructing 3 story, 40 x 200 ft., brick and steel building, concrete foundation, on Elizabeth St., to M. A. Durrschmidt, Main St. About $100,000. Noted June 17.

★Conn., New Britain—School—Bd. Educ. let contract building 2 story, 60 x 240 ft., with 56 x 70 ft. ell, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Tremont St., to Eastern Eng. & Constr. Co., 886 Main St., Bridgeport. About $330,000. Noted Oct. 14.

★N. Y., Brooklyn—Dormitory—Dept. Pub. Welfare, Municipal Bldg., New York City, let contract building and completing general contract, electrical work, domestic hot water generator, etc., for dormitory, at Kings Co. Hospital, here, to Nugent Constr. Co., 505 5th Ave., New York City. About $286,000. Noted Sept. 30.

★N. Y., Buffalo—Church—Central Park Methodist Episcopal Church let contract building 3 story, 150 x 180 ft., on Morris and Wesley Sts., to R. E. Williams, Iroquois Bldg. About $350,000. Noted Aug. 19.

★N. Y., New York—Bank and Offices—Broomis Realty Corp., 309 Bway., let contract building brick and stone, brick foundation, at 801 Westchester Ave., to Eyrich & Ward, 105 West 40th St. About $100,000.

N. Y., New York—School—Bd. Educ., 500 Park Ave., received bids Oct. 18, building P. S. 60, Stebbins Ave. near East 163rd St., Bronx, from P. J. Brennan & Sons, 624 Madison Ave., $844,100; T. Dwyer, Bway. and 216th St., $888,000; Frimyer & Hanna, $969,400. Noted Oct. 7.

★N. Y., New York—Theatre and Offices—Tivoli Amusement Co., c/o Arena Theatre, 40th St. and 8th Ave., will build 134 x 137 ft., brick and stone, brick foundation, on 50th St. and 8th Ave. About $500,000. Work will be done by day labor under supervision of S. B. Eisendrath, archt. and engr., 18 East 41st St.

★N. J., Bayonne—Welfare—Standard Oil Co. of New Jersey, 26 Bway., New York City, let contract building 2 story, 80 x 100

Buildings (Continued)

ft., brick and stone, brick foundation, here, to Tucker & Lewis, 103 Park Ave., New York City. About $100,000.

★**Pa., East Pittsburgh** — School — Bd. Educ. let contract building 2 story, 22 x 51 ft. and 111 x 139 ft. concrete, brick and steel, rein.-con. flooring, on Howard and Madison Aves., to Hodder Constr. Co., Braddock. About $300,000. Noted Aug. 12.

★**Pa., Johnstown**—Store—Swank Hardware Co., Main and Bedford Sts., let contract excavating and building 8 story, 43 x 150 ft. brick addition, rein.-con. flooring, at 624 Main St., to Berkebile Bros., Johnstown. About $100,000.

★**Pa., Phila.**—Sales and Service—A. Hartman, Bulletin Bldg., will construct 6 story, 55 x 105 ft., concrete and brick, on 16th and Vine Sts. About $100,000. Work will be done by day labor.

★**Md., Baltimore** — Office — Commerce Trust Co., Fidelity Bldg., let contract building concrete, brick and steel addition, on Light and Redwood St., to Frainie Bros. & Haigley, 18 Clay St. About $130,000.

★**Fla., St. Petersburg**—Hotel—H. R. McChessney, Pittsburgh, Pa., interested in syndicate which let contract building steel, stone and brick, concrete foundation, here, to G. A. Fuller Co., 175 5th Ave., New York City. About $1,500,000.

O., Ashtabula—School—Bd. Educ. received bids Oct. 5, building 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, from Moore-Lamb Co., 203 Stambough St., Youngstown, $273,000; G. Kratt, Lorain, $278,000. Noted Sept. 30.

O., Canton—School—Bd. Educ. received bids Oct. 3, building 3 story, 130 x 160 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Grace Ave., from G. Whike & Son, Canton, $296,500; Melbourne Bros., Eagle Blk., $311,680. Noted Sept. 9.

O., Carey—School—Bd. Educ. received bids Oct. 6, building 2 story, 97 x 100 ft., brick and concrete, from G. Kratz & Son, Lorain, $106,597; Snyder Lumber Co., Carey, $107,579. Noted Sept. 30.

★**Ind., Hartford City**—Office—Amer. Window Glass Co., Farmers Bank Bldg., Pittsburgh, Pa., let contract building 2 story, 110 x 150 ft. brick and concrete, to Hughes-Foulkrod, Commonwealth Bldg., Phila. About $100,000.

★**Ill., Chicago**—Office—G. C. Nimmons & Co., archts., 122 South Michigan Ave., let contract to R. C. Wieboldt, 1534 West Van Buren St., building 9 story, 75 x 100 ft., rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, at 546-8 South State St., for W. V. Kelly, c/o architect. About $500,000. Bd. Educ., lessee. Noted Sept. 9.

★**Wis., La Crosse**—Grade School—Bd. Educ. let general contract building Hogan School, 2 story, concrete and brick to P. Nelson & Son, Newberg Bldg., $92,658. Noted Sept. 30.

★**Wis., Niagara**—Church—Union Methodist Church let general contract building 1 story, 60 x 148 ft., brick, rein.-con. and steel, brick and tile foundation, on Main St., to A. W. Wilson, Main St. About $100,000.

Minn., Duluth — Office—See "Industrial Works."

★**Minn., Duluth**—School—J. T. McNichols, 211 West 4th St., pastor Cathedral Parish, let contract building 2 story, 150 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 28th Ave. E. and 4th St., to McLeod & Smith, Sellwood Bldg. About $396,300. Noted Sept. 30.

★**Minn., Minneapolis** — Chemistry—State Bd. Control, c/o D. Mullen, secy., Capitol Bldg., St. Paul, let general contract building 3 story, rein.-con., brick, steel and stone addition to chemistry, on State University campus here, to J. and W. A. Elliott, 906 Lumber Exch. Bldg., $239,416; mechanical contract, including heating, plumbing, etc., to M. J. O'Neil, 608 Exch. Bank Bldg., St. Paul, $125,480; electrical work to W. O. Hartig Electric Co., 412 Marquette Ave., $16,487. Noted Oct. 14.

★**Minn., St. Paul** — Church — Riverview Methodist Episcopal Congregation, c/o W. Johnson, 439 Clinton Ave., let contract building 2 story, 50 x 105 ft., rein.-con., brick and stone, on West George and Waseca Sts., to O. Edwards, 266 King St. About $100,000; cost plus percentage basis.

★**S. D., Rapid City**—School—State Bd. Regents let general contract constructing 3 story, rein.-con., brick and tile engineering building, at School of Mines, here, to S. W. Jonason & Co., 308 Van Slyke Bldg., Aberdeen. About $100,000. Noted Sept. 30.

Federal Government Work

PROPOSED WORK

N. Y., Creedmoor (Jamaica P. O.)—Hospital—Federal Government, Wash., D. C., plans to construct several hospital buildings here. About $3,000,000. Private plans.

Va., Alexandria — Cafeteria — Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build here.

Va., Quantico—Fence—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Ga., Columbus—Buildings—Major Moeller, Constr. Div., War Dept., War Trade Bldg., Wash., D. C., plans to construct additional buildings, here. About $1,000,000.

Montana — Road Work—U. S. Forestry Dept., Wash., D. C., opens bids in spring building 12 mi. new route on West Fork of Rock Creek, Carbon Co. About $50,000.

Mo., St. Louis—Earthwork—Mississippi River Comn., 1311 International Life Bldg., rejected bids for earthwork in Riverland Levee Dist. Noted Sept. 16.

Cal., San Diego—Elevators—Spec. 4285—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids received Oct. 6, installing electric elevator in fleet supply storehouse, at Naval Base, here. Noted Oct. 14.

Cal., San Diego—Fleet Supply Storehouse—Spec. 4264—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids received Oct. 6, building at foot of Bway., here. Noted Sept. 16.

BIDS DESIRED

Mass., Chelsea—Macadam Roads, etc.—Spec. 4284—Until Oct. 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building macadam roads, repairing macadam and concrete roads, etc., at Naval Hospital, here; $10 deposit required for plans and spec.

Mass., South Boston (Boston, P.O.)—Steam Locomotive Crane—Spec. 4263—Until Nov. 3, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing at Naval Dry Dock, here; $10 deposit required for plans and spec. Noted Oct. 7.

N. Y., Brooklyn—Concrete Roads, etc.—Until Oct. 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building concrete roads and sidewalks, here. Noted Oct. 14.

N. Y., New York—Repairing Assay Office—Until Nov. 4, by Treas. Dept., Wash., D. C., restoring damaged portions of U. S. Assay Office, here. J. A. Wetmore, acting superv. archt.

N. Y., Tomkinsville — Steel Acetylene Buoy Bodies—Until Nov. 4, by Superintendent of Lighthouses, furnishing 4 steel acetylene buoy bodies with superimposed skeleton steel lantern tower and bottom whistle tube.

Pa., Phila. — Lumber Storehouse — Until Nov. 2, at office of officer in charge of construction, Frankford Arsenal, building, here; advertised in this issue.

Pa., Phila.—Marine Hospital—Until Nov. 15, by Treas. Dept., Wash., D. C., building extension to Marine Hospital, here. J. A. Wetmore, acting superv. archt.

Pa., Washington—Mailing Vestibule—Until Nov. 2, by Treas. Dept., Wash., D. C., building, at U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

D. C., Wash.—Conduit, etc.—Until Nov. 11, by Treas. Dept., Wash., D. C. furnishing conduit, wiring and lighting fixtures in Butler Bldg. J. A. Wetmore, acting superv. archt.

D. C., Wash.—Grading—Until Oct. 25, by Treas. Dept., Wash., D. C., grading on site of U. S. P. H. S. Hospital, Mt. Alto, here. J. A. Wetmore, acting superv. archt.

D. C., Wash.—Hardware, etc.—Until Oct. 25, by Comr. Indian Affairs, Indian Bureau, Wash., D. C., furnishing hardware, electrical supplies, iron work, plumbing, lumber, etc.

Va., Front Royal—Post Office—Until Nov. 8, by Treas. Dept., Wash., D. C., building, here. J. A. Wetmore, superv. arch. Noted Aug. 26.

O., Akron—Extending Mailing Vestibule, etc.—Until Nov. 15, by Treas. Dept., Wash., D. C., building extension to mailing vestibule, driveway, mezzanine floor and public lobby, etc., in Post Office, here. J. A. Wetmore, superv. archt.

Mo., St. Louis—Earthwork—Until Nov. 18, at office of secretary, Mississippi River Comn., 1311 International Life Bldg., building 216,000 cu.yd. earthwork in Kings Lake D.D.; advertised in this issue.

Cal., Mare Island — Heating System — Spec. 4189 — Until Nov. 10, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing heating system in structural [illegible] at Navy Yard, here; $10 deposit required for plans and spec.

Cal., Sacramento—Remodeling Post Office and Court House—Until Nov. 1, by Treas. Dept., Wash., D. C., remodeling here. J. A. Wetmore, superv. archt.

Cal., San Diego—Hospital Building, Spec. 4300—Until Oct. 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing, at Marine Corps Base, here. $10 deposit required for plans and spec. Noted Sept. 16.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Chelsea**—Lighting System—Spec. 4281—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Naval Hospital, here, to G. E. Eng. Co., 22 Leight St., New York City, $15,750, (120 days). Noted Oct. 14.

R. I., Providence—Dredging—U. S. Engineer's Office received bids Oct. 11, dredging in Thames River, Conn., from J. S. Packard Dredging Co., 1004 Turks Head Bldg., $.645 per cu.yd. total, $26,240; Bridgeport Dredge & Dock Co., Commercial Natl. Bank Bldg., Bridgeport, Conn., $.79 per cu.yd., total $32,390. Noted Sept. 16.

★**N. Y., Brooklyn**—Electric Distributing System — Spec. 4286 — Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building underground electric lighting and power distributing system, here, to J. Sugden Co., 100 5th Ave., New York City, $26,250, (120 days). Noted Sept. 16.

★**N. Y., Rockaway Beach**—Radio Compass Building—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing here and at Sandy Hook, to Post & McCord, 101 Park Ave., New York City, $5,000, (45 days).

Pa., Phila. — Steel Dump Scows — War Dept., U. S. Engineers Office, Room 815 Witherspoon Bldg., 1321 Walnut St., received bids Oct. 14, furnishing 2 steel dump scows, from Lake Torpedo Boat Co., Bridgeport, Conn., $128,900, (place of delivery Bridgeport, Conn.); Charleston Dry Dock & Machinery Co., Charleston, S. C., $140,509 (mouth of Delaware River) alternate, 2 additional scows, $135,509 (at Yard Charleston, S. C.); Johnson Iron Wks. Dry Dock & Shipbuilding Co., Inc., Morgan and Seguin Sts., New Orleans, La., $79,800, 1 or 2 additional scows, $78,800, (New Orleans); Ellicott Machine Corp., Baltimore, Md., $98,967, 3 or 4 additional scows, $96,967 (Phila.) Virginia Shipbuilding Corp., Green and Lee Sts., Alexandria, Va., $85,000, 1 or more additional scows, $85,000, (Alexandria Va.); Bethlehem Shipbuilding Corp., Ltd., Bethlehem, $98,000, 3 or 4 additional scows, $97,000 (Elizabethport, N. J.); Amer. Bridge Co., Frick Bldg., Pittsburgh, $97,400, 3 or 4 additional scows, $96,000, (Kearney, N. J.); Newburgh Shipyards, Inc., Newburgh, N. Y., $93,990, 3 or 4 additional scows, $92,670, (Newburgh); Navy Yard, Phila., $104,500, 4 additional scows, $99,500 (Phila.); Amer. Car & Fdry. Co., East 8th St., Wilmington, Del., $48,666; Southern Shipyard Corp., Newport News, Va., 4 to 6 additional scows, $55,000 to $65,000. Noted Sept. 16.

D. C., Wash. — Office and Laboratory — Spec. 4301—Bureau Yards & Docks, Navy Dept., received bids Oct. 15, constructing buildings, extensions to railroad tracks and foundations for radial brick chimney, at Naval Experimental and Research Laboratory, at Bellevue, here, (1) work complete, from Hyde & Baxter, 1311 G St., N. W., (1) $715,994, time as specified, (2) $681,664, (3) $665,914, (4) add $289, (5) deduct $10,882, (6) deduct $10,208 (7) deduct $9,811, (8) deduct $2,162, (9) deduct $2,084, (10) deduct $2,275; Boyle Robertson Constr. Co., 601 Evans Bldg., (1) $729,759, time as specified, (2) $687,650, (3) $667,728, (4) add $3,138, (5) deduct $77,048, (6) deduct $68,828, (7) deduct $65,328; Hughes Foulkrod Co., Commonwealth Trust Bldg., Phila., Pa., (1) $757,480, (300 days), (2) $709,200, (3) $687,800, (4) add $100, (5) deduct $73,548, (6) deduct $65,378, (7) deduct $61,778, (8) add $1,190, (9) add $1,086, (11) add $1,086, (12a) $210, (12b) $157, (12c) $130. Noted Sept. 30.

★**D. C., Wash.**—Storehouse—Spec. 4155—Bureau Yards & Docks, Navy Dept., let contract building storehouse for combustibles, here, to C. H. Tompkins, 1882 3rd St., N. W., $42,300, (260 days). Noted Oct. 7.

★**Va., Hampton Roads**—Seaplane Runway—Spec. 4267—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, at Naval Operating Base, here, to Raymond Concrete Pile Co., 921 Munsey Bldg., Baltimore, Md., $64,750, (120 days). Noted Sept. 30.

Federal Government Work (Continued)

★**North Carolina**—Road Work—U. S. Forest Reserve let contract grading and top-soil surfacing 21 mi. Three-State Highway between Walhalla, S. C., and Highlands, N. C., running through section of Georgia, to Wright & Nave, Anderson, S. C. About $229,000.

★**Mo., Kansas City**—Steam Service Connection—Treas. Dept., Wash., D. C., let contract installing complete outside steam service, here, to MacMahon Plumbing & Heating Co., 1329 Oak St., $10,476. Noted Oct. 7.

★**Tex., Dallas**—Altering Post Office—Treas. Dept., Wash., D. C., let contract altering, here, to Crisman & Nesbit, 310 Beere Bldg., $16,499.

★**Wash, Tatoosh**—Double Radio Quarters—Spec. 4305—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to B. Ward, 418 Peoples Bank Bldg., Seattle, $10,365, (90 days) Noted Oct. 14.

★**Ore, Empire**—Double Radio Barracks—Spec. 4302—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building 2 barracks here, to J. Galber, Mutual Life Bldg., Seattle, Wash., $11,278, (120 days). Noted Sept. 23.

Oregon—Road Work—U. S. Forestry Bureau, Div. Office, Portland, received bids Oct. 8, improving and building 2 steel bridges on Mt. Hood Loop Project, Hood River Sect., from Siems & Carlson, Realty Bldg., Spokane, Wash., $177,004; Warren Constr. Co., 700 Journal Bldg., Portland, $190,438; Johnson Contg. Co., Lumber Exch. Bldg., Portland, $218,030.

Miscellaneous

PROPOSED WORK

Tract Development — Cocoanut Grove, Fla.—Town having preliminary sketches made by J. I. Bright, engr., Otis Bldg., Phila., for removing present structures, laying roads, building park, hotel and other concrete block and terra cotta buildings. Cost to exceed $1,000,000.

Dam—Tama, Ia.—J. G. Cherry Co. had plans prepared for dam and canal work for electric light system. About $40,000. E. T. Cherry, vice-pres. Power Eng. Co., 621 Metropolitan Life Bldg., Minneapolis, Minn., engrs.

Fire Protection—Red Wing, Minn.—See "Sewers."

Cemetery—Casper, Wyo. — City election Nov. 2, to vote on $30,000 bonds to improve and build addition to cemetery. F. S. Knittle, city engr.

Interlocking System—Woodstock, Ont.—Grand Trunk Ry., Union Sta., Toronto, plans to build interlocking system, here. About $20,000. H. Kelly, Montreal, Que., engr.

BIDS DESIRED

Head Gates—Baldwinsville, N. Y.—Until Nov. 16, by E. S. Walsh, Supt. Pub. Wks., Capitol, Albany, building head gates at north end of dam, Erie Canal, Sect. 6, Contr. 186; advertised in this issue.

Dock Wall—Buffalo, N. Y.—Until Nov. 16, by E. S. Walsh, Supt. Pub. Wks., Capitol, Albany, building portion of dock wall around Ohio Basin (revised plans), Terminal Contr. 53-A; advertised in this issue. Noted Sept. 16.

Bitumen—New York, N. Y.—Until Oct. 25, by Bd. Purchase, Room 526, Municipal Bldg., furnishing and delivering bitumen in asphalt cement and in refined tar, to Dept., Water Supply, Gas & Electricity.

Dumping Scows—New York, N. Y.—Until Nov. 5, by F. A. Eschmann, acting comr. Street Cleaning Dept., Room 1244, Municipal Bldg., constructing 5 dumping scows.

Ferryboat—New York, N. Y.—Until Nov. 1, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., constructing steel screw ferryboat.

Steam Roller—Rochester, N. Y.—W. H. Wilson Iron Wks., 551-63 Lyell Ave., receiving bids for 1 steam roller.

Telephone Service, Equipment, etc. — Phila., Pa.—Until Oct. 28, by Dept. Pub. Safety, Room 215, City Hall, furnishing municipal and police telephone service and equipment, also electric lamps and lighting, extinguishing, cleaning and repairing such lamps for streets, etc., during year of 1921. About $104,000 and $1,300,000 respectively.

Lock and Dam—Chicago, Ill.—Until Nov. 22, at office of F. I. Bennett, dir. Dept. Pub. Wks. & Bldgs., Div. of Waterways, Room 1404, 25 East Jackson Blvd., building Starved Rock Lock and Dam, in Illinois River, 2 mi. above Utica and 7 mi. below Ottawa; advertised in this issue.

Foundation and Excavation — Madison, Wis.—Until Oct. 22, by University of Wisconsin, building rein.-con. foundation, for rein.-con. and brick hospital on University Ave. between Charter and Larch Sts. Total cost, $1,000,000. A. Peabody, state archt. Noted Aug. 9.

Road Machinery—Sioux City, Ia.—Comrs. Woodbury Co. receiving bids for road machinery for gravel pit, Kedron Twp., to include one 80 ft. boom drag line, with 2 yd. bucket, one No. 4 gyratory crusher, 1 Telsmith heavy duty washer screen, 48 in. x 14 ft., ⅜ in. and ¼ in., 2 sand settling tanks, Telsmith No. 7, 1 bucket elevator, 110 ft. long, 1 centrifugal pump, 1 stiff-legged derrick, 70 ft. mast, 50 ft. boom with 2 yd. bucket. R. S. Taylor, co. engr.

Smelter Improvements—Galena, Kan.—Until Nov. 1, by G. N. Holt, engr., c/o Eagle Pitcher Lead Co. (owner), Joplin, Mo., for smelter improvements at plant here, including steel runway, smokestack and 100 ft. crane. About $75,000.

Basement—Casper, Wyo.—Until Nov. 1, by Dubois & Goodrich, archts., Townsend Bldg., constructing concrete basement and covering same with concrete floor slab at ground level, for 4 story, 80 x 140 ft., rein.-con. clubhouse, rein.-con. flooring, on North Wolcott and A Sts., for Moose Lodge. Cost $20,000. Ultimate cost $170,000.

Supplies—Toronto, Ont.—Until Nov. 2, by T. L. Church, chn. Bd. Control, furnishing annual supplies, (1) brass and bronze castings, (2) brass work for house services, (3) c.i. pipe, (4) hydrants, (5) pipe fittings and valves, (6) lead pipe, (7) special castings, (8) stop valves, (9) refined asphalt, (10) vitr. paving blocks, (11) treated wood blocks, (12) sewer brick, (13) iron castings, manholes, gullies and grates, (14) portland cement, (15) mineral dust, (16) general supplies, (17) gravel, (18) granite sett, (19) iron and steel, (21) house numbers, (22) oils, (23) sewer pipe, (26) rubber valves, (27) trap rock, (28) sand, (29) crushed stone, (30) rubble stone, (33) trainmen's uniform suits, (34) liquid chlorine, (35) basic sulphate of alumina.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Coaling Plant—Cambridge, Mass.**—Progressive Coal Co., 288 Albany St., let contract building concrete coaling and distributing plant, with coal bunks, to C. A. Dodge Co., Erie and Albany Sts. About $50,000.

★**Foundation — Leominster, Mass.**—Leominster Theatre, Inc., let contract building concrete foundation for 1 story, 70 x 155 ft., brick and steel theatre, on Maple St., to G. Ross & Son, 10 Oxford St. Total cost, $125,000.

★**Dam — Lynn, Mass.** — Universal Tide Power Co., 69 Canal St., Boston, let contract building rein.-con. hydraulic dam, to M. Seretto, 3 Tremont Row, Boston. About $300,000.

Heating Apparatus, etc.—Brooklyn, N. Y.—Bd. Educ., New York City, received bids Oct. 18th installing (a) heating and ventilating, (b) temperature apparatus, (c) electric elevator, (d) plumbing and drainage, in P. S. 73, here, from Gillis & Geoghagan, 527 West Bway., New York City, (a) $191,485; E. Ruetzler Co., (a) $193,976; J. C. Williams, 261 West 126th St., New York City, (a) $197,447; Johnson Serv. Co., 123 East 27th St., New York City, (b) $8,956; Bishop & Babcock, (b) $8,958; Otis Elevator Co., 11th Ave. and 26th St., New York City, (c) $16,820; J. A. Graf, 394 Waverly Pl., (d) $22,472; N. Niebrauer, Jr., (d) $29,574; J. J. Kenney, 236 West 20th St., New York City, (d) $32,700. Noted Oct. 14.

Piles, etc.—Brooklyn, N. Y.—E. S. Walsh, Supt. Pub. Wks., Capitol, Albany, received bids Oct. 13, driving foundation piles for proposed grain elevator, building bulkhead wall along Henry St. slip and dredging Henry St. Basin, at Gowanus Bay (Terminal Contr. 79), from Raymond Concrete Pile Co., 90 West St., $428,269; A. N. Spooner & Son, Inc., Pier 11, North River, $445,519; Phoenix Constr. Co., 41 Park Row, $449,625; all contractors in New York City. Noted Sept. 16.

★**Asphalt Plant—New York, N. Y.**—H. Bruckner, pres. Bronx Boro., let contract furnishing labor and material building asphalt plant on Edgewater Rd. near Garrison Ave., to M. Del Balso, 1434 Bryant Ave., $54,570, steel stiff leg derrick, to O'Rourke Crane Co., $12,900; bulkhead for plant, to Riverside Contg. Co., 164 Montague St., Brooklyn, $28,716. Noted Oct. 7.

Electrical Equipment—New York, N. Y.—Bd. Educ. received bids Oct. 18, installing electrical equipment in P. S. 38, Bronx, from Jandous Electric Equipment Co., 109 West 31st St., $47,212; Crocker Natl. Co., 1270 Bway., $48,660; T. F. Jackson, Inc., 99 John St., $50,595. Noted Oct. 7.

Ferryboat—New York, N. Y.—G. A. Whalen, Comr. Plant & Structures, Municipal Bldg., received bids Oct. 13, building steeel screw ferryboat, from S. I. Shipbuilding Corp., 3075 Richmond Terrace, Port Richmond, $827,900; Tebo Yacht Basin Corp., foot 24th St., Brooklyn, $896,000; Virginia Yacht Building Corp., $916,935. Noted Oct. 7.

★**Limestone—New York, N. Y.**—H. H. Curran, pres. Manhattan Boro., let contract furnishing and delivering 2,000 ton limestone, to R. M. Soper, 1476 Bway., $20,840. Noted Oct. 14.

★**Rapid Transit—New York, N. Y.**—Pub. Serv. Comn., 49 Lafayette St., let contract rebuilding portion of 4th Ave.-Bway. Rapid Transit R.R., to Booth & Flynn, 17 Battery Pl., $521,365. Noted Sept. 30.

★**Yard—New York, N. Y.**—Pub. Serv. Comn., 49 Lafayette St., let contract building portion 7th and Lexington Aves. Rapid Transit R. R., to O. Daniels, Woolworth Bldg. About $596,000. Noted Sept. 16.

Piers—Oswego, N. Y.—E. S. Walsh, Supt. Pub. Wks., Capitol, Albany, received only bid Oct. 13, building concrete foundation piers for proposed grain elevator on Barge Canal Terminal Pier here (Terminal Contr. 80), from Brown & Lowe and Law Bros., Foster Ave., Schenectady, $336,412. Noted Sept. 16.

Gasholder—Md., Baltimore—Consolidated Gas, Electric Light & Power Co., Lexington Bldg., will build concrete and steel gasholder at Spring Garden plant. Work will be done by day labor under supervision of G. Beadenkopf, ch. engr. About $300,000.

★**Cable—Cleveland, O.**—City let contract furnishing 53,961 ft. underground lead cable, to Standard Underground Cable Co., $22,173.

★**Foundation—Toledo, O.**—Bd. Educ. let contract erecting and completing excavation and rough concrete work, including 1st floor slab on South Side High School, Daniels St. and Western Ave., to Jellins & Kopiltke, Toledo, $212,891. Total cost over $1,000,000. Noted Sept. 23.

★**Poles—Detroit, Mich**—Street Ry. Comn., City Hall, let contract furnishing seventeen hundred 30 ft. trolley poles (steel tubes), at $68 apiece, and four hundred 30 ft. heavy poles, $90, to Natl. Tube Co., Frick Bldg., Pittsburgh, Pa., total $151,680.

Breakwater—Chicago, Ill.—South Park Comrs. 57th St. and Cottage Grove Ave., received bids building inner breakwater along shore of Lake Michigan from 11th Pl. to 24th St., (a) Sect. 1 involves 1,330 lin.ft. breakwater, (b) Sect. 2, 2,533 lin.ft., (3) Sect. 3, 3,627 lin.ft., from Great Lakes Dredge & Dock Co., 104 South Michigan Ave., (a) $211,470, (b) $387,549, (c) $449,748; Central Dredging Co. Chicago (a) $259,350, (b) $471,138, (c) $478,764. Noted Aug. 19.

Lock—Chicago, Ill.—Dept. Pub. Wks. & Bldgs., Div. Waterways, 25 East Jackson Blvd., received bids Oct. 18, building Marseilles Lock, in Illinois River, from Green & Sons Co., 8 South Dearborn St., $1,373,000; Bates & Rogers, 37 West Van Buren St., $1,547,000; O. Daniels Co., 38 South Dearborn St., $1,610,000. Noted Sept. 16.

★**Foundation—St. Paul, Minn.**—Bd. Trustees, c/o J. Levy, pres., 41 East 7th St., let contract building foundation and first floor slab for 2 story, rein.-con. and brick, Jewish Home for Aged, at 75 Wilkin St., to E. Bjorklund, 786 Como Blvd. About $20,000.

★**Fill, etc.—Belmont, Mont.**—Great Northern Ry. Co., Railroad Bldg., St. Paul, Minn., let contract for bridge, filling tunnel and grading here, to G. Smith & Co., 1505 Pioneer Bldg., St. Paul. Cost to exceed $25,000.

★**Shed—Seattle, Wash.** — Seattle Port Comn. let contract building "west" transit shed to duplicate present "east" structure on Pier "B," 500 ft. long, 120 ft. wide, to Scherer & Carlson, 111 Pine St., $123,740. Noted Sept. 23.

★**Stadiums—Hamilton, Ont.**—City let contract building concrete and wood stadiums in Scott Park, to J. T. Drake, Hamilton, $54,300.

★**Wharf—Owen Sound, Ont.**—Dept. Pub. Wks., Ottawa, let contract building concrete and wood, to E. Conroy, Peterboro, $89,768. Noted Aug. 12.

★**Pier—Toronto, Ont.**—Dept. Pub. Wks., Western Blk., Ottawa, let contract building 466 ft. of superstructure of east pier, at eastern channel of Toronto Harbor, involving 2,000 cu.yd. rein.-con., to S. Boone Dredging & Constr. Co., Ltd., Excelsior life Bldg., $68,679.

OFFICIAL PROPOSALS

Bids: Oct. 29.

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Friday, October 29th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, as follows:

TERMINAL CONTRACT No. 26-A

For completing the terminal at Rouses Point.

Contract plant sheets 1 and 2.

The work shall be completed on or before July 1st, 1921.

TERMINAL CONTRACT No. 229

For constructing the foundation of the proposed terminal freighthouse at Rochester. Contract plans, sheets 1 and 2.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Supt. of Public Works.

Bids: Nov. 1.

Waterworks Improvement.

Defiance, O.

Notice is hereby given that sealed proposals will be received in accordance with the law at the office of the Director of Public Service of the City of Defiance, Ohio, until 12 o'clock noon, Central Standard Time, on the 1st day of November, A. D. 1920, for furnishing materials and performing the labor required for furnishing pumping machinery, installing pumping machinery, furnishing and installing piping, furnishing and installing electrical equipment and wiring and for furnishing and installing carbon dioxide gas generating and compressing apparatus at the City Water Works of the City of Defiance, Ohio, all in accordance with plans and specifications on file in the office of the Director of Public Service of the City of Defiance, and also in the office of the Consulting Engineers, Nicholas S. Hill, Jr., and S. F. Ferguson, 112 East 19th Street, New York City.

Copies of plans and specifications may be obtained from either the Director of Public Service or from the Consulting Engineers upon depositing $25.00, which sum will be refunded upon the return of plans and specifications in good condition within ten days after the date for the award of the contract, or else the entire deposit will be forfeited.

The work to be done includes:

Furnishing and delivering, f.o.b. cars Water Works side track, Defiance, Ohio, three centrifugal pumps with a capacity of from 2½ to 4 millions gallons daily, complete with motors or gasoline engines mounted on common base with the pumps, together with other small pumps. Unloading from cars and installing in the Pumping Station, on foundations provided by the City, the pumping equipment mentioned above, and furnishing and installing all suction, discharge, blow-off, exhaust, air, priming, cooling water, gasoline, drain and other piping required for their operation including valves, specials and appurtenances.

Furnishing and installing on foundation provided by the City, gasoline engine driven alternator and accessories. Furnishing and installing transformers, switchboard, circuit breakers, voltmeter, ammeter, interor and exterior power and light wiring, lamps, conduits, pole line, etc., necessary to provide complete electric power and light circuits at the Water Works plant.

Furnishing and in stalling apparatus for manufacturing and compressing carbon dioxide gas and delivering this gas to a system of piping provided by the City. Foundations will be provided by the City.

Each bid shall be accompanied by a bid bond from a reliable surety company, or a certified check upon some solvent bank in the City of Defiance, Ohio, made payable to the City of Defiance, Ohio, in an amount equal to five per cent (5%) of the bid tendered, as a guarantee that the bidder will, if an award is made to him, enter into a bona fide contract with the Director of Public Service of the City of Defiance, Ohio, to perform the work and furnish a satisfactory bond as a guaranty for its proper performance.

Bidders shall furnish, if required, satisfactory evidence of their experience and ability to perform work of the character required.

The Director of Public Service reserves the right to consider bids for ten days after receiving them before awarding the contract, and the right is reserved to reject any or all bids or to accept any which the Director of Public Service may deem advantageous to the City of Defiance.

Bids: Nov. 22

Lock and Dam Construction

OF
THE ILLINOIS WATERWAY
CONTRACT NO. 2

Chicago, Ill.

1. Sealed proposals for the construction of Starved Rock Lock and Dam, located in the Illinois River, two miles above Utica, and seven miles below Ottawa, La Salle County, Illinois, will be received at the Office of the Director of the Department of Public Works and Buildings, Division of Waterways, Room 1404, 25 East Jackson Boulevard, Chicago, Illinois, until twelve (12) o'clock noon, Central Standard Time of the twenty-second (22) day of November, 1920, and then publicly opened and read.

2. Copies of the plans, specifications, proposal blank, form of bond, and contract may be obtained by prospective bidders at the Office of the Department, Room 1404, 25 East Jackson Boulevard, Chicago, Illinois, upon depositing a check for Ten Dollars ($10.00), made payable to the Director of the Department of Public Works and Buildings, which sum will be returned within ten (10) days after the contract has been awarded, if the plans are returned in good condition within that time.

3. Each proposal shall be accompanied by a certified check or draft drawn on some responsible bank doing business in the City of Chicago, and made payable to the order of the Director of the Department of Public Works and Buildings, for five (5) per cent of the amount of the proposal. In lieu of a certified check or draft, the proposal may be accompanied by a bond executed in the form prescribed by the Department of Public Works and Buildings and with a Surety Company approved by the Department in the penal sum of ten (10) per cent of the amount of the proposal.

4. The Department of Public Works and Buildings reserves the right to reject any or all bids. The contract, if let, will be awarded to the lowest responsible bidder.

FRANK I. BENNETT,
Director, Department of Public Works and Buildings.
WILLIAM L. SACKETT,
Superintendent of Waterways.
M. G. BARNES,
Chief Engineer,
Division of Waterways.
October 21, 1920.

Bids: Oct. 26.

Drainage Ditch Construction.

Geneseo, Ill.

Sealed proposals will be received by the Commissioners of the Rock River Drainage and Levee District in the Counties of Henry and Whiteside and State of Illinois until the 26th day of October, A. D. 1920, and until 10 o'clock a.m. of said day, at which time the bids will be publicly opened at the office of Henry Waterman in Geneseo, Illinois, and the work awarded to the lowest responsible bidder. The work for which bids is desired consists of the construction of one main ditch and one lateral ditch requiring the removal of approximately 272,000 cubic yards of material. Plans and specifications for the work may be had from either the Commissioners, their Engineer or Attorney. The work will be paid for in cash, 80 per cent on monthly estimates and the balance upon the completion and final acceptance of the entire work awarded. All bids should be mailed or delivered to the Commissioners. The bids must be accompanied by a certified check or bank draft payable to the Treasurer of the District in the sum of $2,500.00. The right is reserved to reject any and all bids.

Geneseo, Illinois, October 5th, 1920.

LEVI S. ROPP, Geneseo, Ill., R. R. 6.
Chairman.
MARTIN L. FRANKS, Geneseo, Ill.
Secretary.
JAMES E. BRYANT, Hillsdale, Ill.
Commissioner.
H. E. REEVES, Engineer.
Le Claire, Iawo.
HENRY WATERMAN, Attorney.
Geneseo, Ill.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 1	Defiance, O.	Oct. 21
Nov. 8	Charlotte, Mich. Adv. Oct. 28.	Oct. 28
Nov. 16	Oxford, Mich. Adv. Oct. 14 and 28.	Oct. 21
Nov. 16	Oxford, Mich.	Oct. 28
Dec 1	Metuchen, N. J.	Oct 28

SEWERS

Nov. 1	East Gary, Ind.	Oct. 21
Nov. 1	Paterson, N. J.	Oct. 28
Nov. 3	Summit, N. J. Adv Oct. 21 and 28.	Oct. 28
Nov. 8	Syracuse, N. Y. Adv. Oct. 14 to 28.	Oct. 21
Nov. 9	Rayville, La.	Oct. 21
Nov. 10	Akron, O. Adv. Oct. 28.	Oct. 28

BRIDGES

Nov. 1	Jena, La.	Oct. 21
Nov. 3	Chatsworth, Ga.	Oct. 21
Nov. 3	Manning, S. C.	Oct. 21
Nov. 4	Ft. Worth, Tex.	Oct. 21
Nov. 5	Detroit, Mich. Adv. Oct. 14 to 28.	Oct. 21
Nov. 5	Norfolk, Va. Adv. Oct. 14 to 28.	Oct. 21
Nov. 8	Jefferson City, Mo. Adv. Oct. 28.	Oct. 28
Nov. 10	Long Branch, N. Y. Adv. Oct. 21 and 28.	Oct. 28
Nov 10	Bad Axe, Mich.	Oct. 28

STREETS AND ROADS

Oct. 29	New York Adv. Oct. 21 and 28.	Oct. 21
Oct. 29	Long Island Cty, N. Y.	Oct. 21
Oct. 30	Curwensville, Pa.	Oct. 28
Nov. 1	Indiana	Oct. 21
Nov. 3	Visalia, Cal.	Oct. 21
Nov. 3	Chatsworth, Ga.	Oct. 21
Nov. 3	New York, N. Y.	Oct. 28
Nov. 3	Tucson, Ariz.	Oct. 28
Nov. 3	Indiana	Oct. 28
Nov. 4	Ft. Worth, Tex.	Oct. 21
Nov. 4	Indiana	Oct. 28
Nov. 4	New York, N. Y.	Oct. 28
Nov. 5	Michigan	Oct. 28
Nov. 5	Montana	Oct. 28
Nov. 6	Junction City, Kan.	Oct. 14
Nov. 6	Lawrence, Kans.	Oct. 21
Nov. 6	Homer, La.	Oct. 28
Nov. 8	Arcadia, La.	Oct. 21
Nov. 8	Anahuac, Tex.	Oct. 21
Nov. 8	Pittsboro, N C.	Oct. 21
Nov. 8	Newberry, S. C.	Oct. 28
Nov. 8	Waxahachie, Tex.	Oct. 28
Nov. 8	San Marcos, Tex.	Oct. 28
Nov. 9	Maryland Adv. Oct. 28	Oct. 28
Nov. 9	Michigan	Oct. 28
Nov. 10	Alabama	Oct. 21
Nov. 11	Fredericksburg, Tex.	Oct. 21
Nov. 11	Arizona	Oct. 28
Nov. 12	Salina, Kans.	Oct. 21
Nov. 12	Birmingham, Ala.	Oct. 21
Nov. 13	Bay City, Tex.	Oct. 28
Nov. 15	Oskaloosa, Kan.	Oct. 21
Nov. 15	Indiana	Oct. 28
Nov. 16	Lyon, Kan.	Oct. 14
Nov. 16	St. Louis, Mo.	Oct. 28
Nov. 17	Providence, R. I. Adv. Oct. 28.	Oct. 28
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 5	Colorado Springs, Col.	Oct. 21

EXCAVATION AND DREDGING

Nov. 1	Tampa, Fla. Adv. Sept. 30 to Oct. 28.	Oct. 7
Nov. 4	Sterling, Ill.	Oct. 21
Nov. 6	Illiopolis, Ill.	Oct. 28
Nov. 9	Norwalk, O.	Oct. 21

INDUSTRIAL WORKS

Nov. 1	Webb City, Mo.	Sept. 16
Nov. 1	Augusta, Ga	Oct. 21
Nov. 1	Long Island City, N. Y.	Oct. 28

BUILDINGS

Nov. 1	East Conemaugh (Johnstown P. O.), Pa.	Oct. 21
Nov. 1	Providence, R. I.	Oct 28
Nov. 1	Detroit, Mich.	Oct. 28
Nov. 1	Winnipeg, Man.	Oct. 23
Nov. 8	Tulsa Okla.	Oct. 28
Nov. 9	Detroit, Mich.	Oct. 23
Nov. 12	Pocahontas, Ia.	Oct. 23
Nov. 13	Bedford, O.	Oct. 28
Nov. 15	Baltimore, Md.	Oct. 28
Nov. 15	Enid, Okla.	Oct. 23
Nov. 16	Shelby, Ia.	Oct. 28
Nov. 22	Buffalo, N. Y.	Oct. 28
Dec. 6	Ossining, N. Y.	Oct. 21
Dec. 10	Brooklyn, N. Y.	Oct. 21
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Oct 28
Jan. 2	Cortland, N. Y.	Oct. 21

FEDERAL GOVERNMENT WORK

Oct. 30	Hoisting Plant—Washington, D. C.	Sept. 16
Oct. 30	Cable Hangars—Washington, D. C.	Oct. 14
Nov. 2	Mailing Vestibule—Washington, Pa.	Oct. 21
Nov. 2	Lumber Storehouses—Phila., Pa. Adv. Oct. 21 and 28.	Oct. 21
Nov. 3	Steam Locomotive Crane—South Boston (Boston P. O.), Mass.	Oct. 21
Nov. 3	Heating System—Spec. 4189—Mare Island Cal.	Oct. 28
Nov. 3	Distributing System—Spec. 4294 — South Charleston, W. Va.	Oct. 23
Nov. 4	Steel Acetylene Buoy Bodies—Tompkinsville, N. Y.	Oct. 21
Nov. 4	Repairing Assay Office—New York, N. Y.	Oct. 21
Nov. 5	Earthwork — St. Louis, Mo. Adv. Oct. 7 to 28.	Oct. 7
Nov. 5	Steel Barges—Vicksburg, Miss. Adv. Oct. 14 to 28.	Oct. 14
Nov. 8	Post Office—Front Royal, Va.	Oct. 21
Nov. 9	Loading Shed—Bloomington, Ill.	Oct. 28
Nov. 9	Electric Lighting System—Phila., Pa. Adv. Oct. 28.	Oct. 28
Nov. 10	Mezzanine Floor—Indianapolis, Ind. Adv. Oct. 28.	Oct 28
Nov. 10	Pumping Facilities—Wash. D. C.	Oct. 14
Nov. 10	Centrifugal Pumps, etc. — Wash., D. C. Adv. Oct. 21 and 28	Oct 28
Nov. 10	Electric Traveling Bridge Crane—Spec. 4250—New York, N. Y.	Oct 28
Nov. 10	Steam Locomotive Crane — Spec. 4263—South Boston P O.), Mass.	Oct. 28
Nov. 11	Conduit, etc.—Wash., D. C.	Oct. 21
Nov. 15	Marine Hospital—Phila, Pa. Adv. Oct. 21 and 28.	Oct. 21
Nov. 15	Extending Mailing Vestibule, etc.—Akron, O.	Oct. 21
Nov. 15	Extension to Marine Hospital—Phila., Pa.	Oct. 23
Nov. 16	Extension to Mailing Vestibule—Portsmouth, O.	Oct. 28
Nov. 17	Marine Railway—Spec. 4254—Pearl Harbor, H. T.	Oct. 14
Nov. 17	Nurses Quarters—Spec. 4293—Puget Sound, Wash.	Oct. 28
Nov. 17	Ordnance Buildings—Spec. 4168—Pearl Harbor, H. T.	Oct. 14
Nov. 17	Remodeling Post Office and Court House—Sacramento, Cal.	Oct. 21
Nov. 18	Earthwork—St. Louis, Mo. Adv. Oct. 21 and 28.	Oct. 21
Nov. 18	Post Office—Athens, Tenn.	Oct. 28
Nov. 19	Altering Post Office and Custom House—Oswego, N. Y. Adv. Oct. 28.	Oct. 28

MISCELLANEOUS

Oct. 29	Terminal — Rouses Point, N. Y. Adv. Oct. 7 to 28.	Oct. 7
Oct. 29	Foundations — Rochester, N. Y. Adv. Oct. 7 to 28.	Oct. 14
Nov. 1	Basement—Casper, Wyo.	Oct. 21
Nov. 1	Smelting Improvements — Galena, Kan.	Oct. 21
Nov. 1	Ferryboat — New York N. Y.	Oct. 21
Nov. 1	Testing Machine, etc.—Detroit, Mich.	Oct. 28
Nov. 2	Supplies—Toronto, Ont.	Oct. 21
Nov. 2	Backfiller—Detroit, Mich.	Oct. 2[illegible]
Nov. 3	Springfield, Mass.	Oct. 21
Nov. 5	Dumping Scows—New York N. Y.	Oct. 21
Nov. 9	Power Plant Equipment — Michigan City, Ind. Adv. Oct. 28.	Oct. 23
Nov. 16	Head Gates—Baldwinsville, N. Y. Adv. Oct. 21 and 28.	Oct. 21
Nov. 16	Dockwall—Buffalo, N. Y.	Oct. 21
Nov. 22	Lock and Dam—Chicago, Ill. Adv. Oct. 21 and 28.	Oct. 21
Nov. 23	Heating, etc. —Ossining, N. Y. Adv. Oct. 28.	Oct. 28

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Conn., New Britain—City plans to develop first unit of underground waterway sources adjacent to the Whigville Reservoir pipe line. Work includes water sheds, wells, pumping plant, etc. J. D. Miller, city engr. Haxen-Whipple & Fuller, 30 East 42nd St., New York City, consult. engrs. Total cost to exceed $3,000,000.

Ky., Harrodsburg—City election, Nov. 2, to vote on $200,000 bonds to improve waterworks system and electric light and power plant. Greeley, Pearce & Hansen, 39 West Adams St., Chicago, Ill., engrs.

Ind., East Chicago—City having designs made by Greeley, Pearce & Hansen, engrs., 39 West Adams St., Chicago, Ill., for pumping station. About $150,000.

Mich., Hamtramck (Detroit P. O.)—Village plans to lay watermain extensions, involving 3,870 ft. 6 in. c.i. pipe, etc. About $25,000. G. Jerome, 1331 Majestic Bldg., Detroit, engr.

Mich. Ramsey—City having plans prepared by Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, for new waterworks system. About $75,000.

Mich., Trenton — City having plans prepared by C. W. Hubbell, engr., 2348 Penobscot Bldg., Detroit, for watermain extensions and filtration plant, to include laying c.i. pipe and building filter bed.

Ill., Sesser—City plans to build waterworks system. C. B. Mautz, Benton, engr.

Wis., Brandon—Village election Nov. 2, to vote on $50,000 bonds to build waterworks plant and sewerage system. Engineer not selected.

Wis., Janesville—City having plans prepared for addition to water supply system. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs.

Wis., Prairie du Chien—City having plans prepared for furnishing additional water supply, to include wells and new pumping station. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs.

Wis., Racine—Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, prepared report recommending abandonment of present water station, installation new pumps and filtration plant, new 36-in. intake from Lake Michigan, and $400,000 addition to distributing system. About $2,000,000. Above work now waiting on decision of City Council.

Wis., Sheboygan — Common Council instructed C. U. Boley, city engr., to investigate project of drilling wells at pumping station in preference to installing filtration plant. Work will include new pump house. About $25,000.

Wis., Stevens Point—Stevens Point Water Co., 526 North 8th St., Manitowoc, plans to improve water station here. Work includes new pumping station, etc. T. W. Gray, mgr. Engineer not selected.

Wis., West Allis (Milwaukee P. O.)—City having plans prepared building concrete reservoir and water mains in 38th Ave. Cost between $100,000 and $125,000. A. Schneider, city engr.

Minn., Osakis—City plans to build pumping station and purchase equipment. About $10,000. C. L. Pillsbury Co., 805 Metropolitan Life Bldg., Minneapolis, engrs.

Minn., St. Paul—City election Nov. 2, to vote on $3,000,000 bond issue to enlarge water plant, involving 8 mi. pipe line to Mississippi River, pumping station, filter plant, etc. O. Claussen, city engr.

Kan., Ottawa—City voted $165,000 bonds to improve water-works system and electric light plant. Engineer not selected. Noted Sept. 9.

Kan., Peabody—City had plans prepared for small pump house and 9 mi. c.i. mains. About $180,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

N. D., Dickinson—City voted $28,000 bonds to improve water-works system.

Mo., Plattsburg—City having surveys made by E. T. Archer Co., engrs., New England Bldg., Kansas City, for new waterworks plant. About $75,000.

Tex., Iowa Park—Town voted $55,000 bonds to build extensions to water-works system.

Tex., Paducah—Cottle Co. Chamber of Commerce and business interests have joined and plan to build waterworks system. About $150,000. H. E. Elrod Co., Interurban Bldg., Dallas, engrs.

Tex., Wichita Falls—City voted $200,000 bonds to extend waterworks system. J. Montgomery, city engr. Noted Oct. 7.

Okla., Spiro—City plans election to vote on $90,000 bonds to build waterworks and sewerage systems. H. G. Olmsted, 415 Oil Exch. Bldg., Oklahoma, engrs.

Okla., Tulsa—City plans election, in November, to vote on $350,000 bonds, to build six additional filter units, 10,000,000 gal. basin, 2,500,000 gal. concrete reservoir and two boilers. Holway Eng. Co., 230 Lynch Bldg., Tulsa, engrs.

Ont., London—City plans to develop sulphur well with plant for purifying water. About $30,000. H. V. Buchanan, Pub. Utilities Bd, engr.

BIDS DESIRED

Mich., Charlotte—Until Nov. 8, by H. O. Talbert, city clk., installing steam pumping engine and air compressor; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mich., Detroit** — Water Bd. will lay watermains in Floyd, Gable, Fisher, Lonyo, Grandy, Wyman, Shields and Martin Aves., involving 5,203 ft. 6-8 in. c.i. pipe. Work will be done by day labor.

★**Tex., Wichita Falls**—State Bd. Control, Austin, let contract building water supply plant, at Northwest Texas Insane Asylum, here, to James Constr. Co., Dallas, $45,300.

Wash., Bremerton—City let contract installing watermains, hydrants, valves, gates, etc., involving 20,000 ft. 6 in. wood pipe and 1,700 ft. c.i. pipe, to F. N. Badolato, Builders' Exch., Seattle; $53,505.

Sewers

PROPOSED WORK

N. H., Manchester—City plans to extend sewerage system in various streets. About $50,000. M. F. Shea, dir. pub. wks.

Mass., Lynn—City plans to extend sewerage system in Pearl St. About $25,000. Metcalf & Eddy, 14 Beacon St., Boston, engrs.

Mass., North Chelmsford—Town plans to build vitr. sewers in various streets. About $25,000. Architect not selected.

N. J., Verona (Montclair P. O.)—Essex Co. (Newark) having plans prepared for sewerage system and sewage disposal plant to connect Essex Mountain Sanitarium with Overbrook Hospital. About $15,000. F. J. Reimer, co. engr.

N. C., Idlewild—Comrs. Pub. Wks., Raleigh, plan to build 1½ mi. sewers and ½ mi. watermains in various streets, here. About $15,000. J. B. Bray, city engr.

S. C., Spartanburg—City voted $50,000 bonds to extend sewerage system. Noted May 6.

Ind., Bloomington — City having plans prepared and receives bids about Jan. 1, enlarging sewage disposal plant. About $60,000. Albord & Burdick, 8 South Dearborn St., Chicago, engrs. Noted March 11.

Ind., East Chicago—City having designs made by Greely, Pearce & Hansen, engrs., 39 West Adams St., Chicago, Ill., for sewage treatment plant. About $320,000.

Ill., Carbondale—City soon receives bids building extension to sewerage system. About $50,000. W. J. Brown, clk.

Ill., East Moline—City having plans prepared building 4 mi. 36-84 in. sewers in various streets. About $225,000. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs.

Ill., Kewanee—City having plans prepared for installation of intercepting sewers, tanks and sprinkling filters. About $250,000. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs. Noted March 11.

Ill., Rockford — City having plans prepared building intercepting sewers, cost $600,000, settling tanks and chlorination plant, $220,000. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs.

Ill., Sesser—City plans to build sewerage system. C. B. Mautz, Benton, engr.

Wis., Brandon—See "Waterworks."

Wis., Kiel—Village Council plans to build vitr. sewers in West Fremont and State Sts. About $18,000. Engineer not selected.

Wis., Oshkosh—City plans to extend sewerage system. About $45,000.

Neb., Lincoln—City having plans prepared by Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, for sewage disposal plant. About $330,000.

Tex., Weatherford—Town voted $25,000 bonds to build extension to sewerage system.

Tex., Wichita Falls—City voted $700,000 bonds to build extensions to sanitary sewerage system and $260,000 for extensions to storm sewers. J. Montgomery, city engr. Noted Oct. 7.

Okla., Spiro—See "Waterworks."

Okla., Waynoka—City having preliminary survey made by H. J. Olmsted & Co., engrs., 417 Oil Exch. Bldg., Oklahoma City, for erection of disposal plant, involving 8-12 in. tile pipe. Election in November to vote on $60,000 bonds for project.

BIDS DESIRED

N. J., Paterson—Until Nov. 1, by Passaic Valley Sewerage, Comrs., 128 Market St., Newark, building portion of Sect. 21, Prospect Branch Sewer, involving 210 lin.ft. earth and 100 cu.yd. rock excav., etc. J. H. Quigg, clk. Noted Aug. 26.

N. J., Summit—Until Nov. 3, by Common Council, building brick and concrete sewage pumping station. F. C. Kentz, clk.; advertised in this issue.

O., Akron—Until Nov. 10, by E. A. Zeisloft, dir. Pub. Serv., building Willow Run Trunk Sewer from Market to Exchange Sts. J. E. Root, engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Pub. Wks. Dept., City Hall Annex, let contract building vitr. sewerage system, in Farragut Rd. extension to A. Barnfaldi, 5 Parker Pl., Somerville, $37,398.

★**Mass., South Boston** (Boston P. O.)—City let contract building overflow extension in N and K Sts., Old Harbor, to Bay State Dredging Co., 62 Condor St., Boston, $51,393.

★**Conn., Hartford** — City let contract building vitr. sewers in Burnham, Euclid and Morningside Sts., to N. C. Casciano Co., 20 Lilley Rd., West Hartford. About $15,000.

★**Conn., Waterbury**—City let contract building vitr. sewer in Woodruff and Revere Sts., to S. D. Simone, P. O. Box 551. About $15,000.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Oct. 20, building sewers in (a) Pierce Ave. from 4th to 5th Aves., (b) Beeckman St. from State to Mitchel Aves., (c) South St. from tracks of Long Island R.R. to Rockaway Turnpike and in Rockaway Turnpike from South St. to Lincoln Ave., (d) regulating and grading sidewalk space and laying sidewalks in Maspeth Ave. from Cleremont Ave. to Grand St., from C. Kurth, (a) $1,269, (d) $1,890; J. F. Clancy, (a) $1,329, (b) $6,746; Green Contg. Co., 734 Vernon Ave., Brooklyn, (a) $1,663, (b) $7,708, (c) Type "B," $46,732; Pease Bros., (a) $1,763, (b) $6,459, (c) Type "A," $54,842, Type "B," $45,842, (d) $2,860; Kennedy & Smith, 94 Main St., Flushing, (a) $1,816, (b) $7,183, (c) Type "B," $45,644, (d) $3,495; Rotti & Co., (c) Type "A," $35,850, "Type "B," $35,850; J. H. Johnson, (c) Type "B," $37,078; A. Paino, (c) Type "B," $42,558; T. King, (c) Type "B," $42,624; Scott Bros. (d) $2,840. Noted Oct. 14.

★**N. Y., Long Island City**—M. E. Connolly, pres. Queens Boro., let contract building sewer in Lurting St., to J. F. Clancy, $33,955; Fulton St., to J. H. Johnson, Inc., $5,008. Noted Oct 14.

★**N. Y., Marcy**—State Hospital Comm., Capitol, Albany, let contract building underground sewerage and water supply con-

Sewers (Continued)

nections at Utica State Hospital, here, to Scott Bros., Arlington Blk., Rome, $445,-745. Noted Oct. 14.

N. Y., Middletown—State Hospital Comn., Capitol, Albany, received bids Oct. 20, building underground sewer connections at State Hospital, here, from T. E. O'Brien, 6311 5th Ave., Brooklyn, $25,700; R. B. Nellis Scotia, (Schenectady P. O.) $27,400. E. W. Tompkins & Co., 27 Grand St., Albany, $38,000. Noted Oct. 7.

Mich., Detroit—City received bids furnishing labor and material (except iron manhole rings and covers) building complete with backfill, Lateral Sewer 3,310 between Livernois, Canterbury and Pembroke Sts. and Seven Mile Rd., (b) 3,314 between Arlington, Maine, Carpenter and Davison Sts., (c) 3,316 between Greeley, Dequindre, Davison and Drake Sts., (d) 3,333 between Lumley, Springwells and Kirkwood Sts., (e) 3,334 between Springfield St. and alley east of Fairview, Shoemaker and Hearns Sts., (f) 3,337 between Woodward, Bauman and Carmel Sts. and Seven Mile Rd., (g) 3,339 between John R., Greendale and Hildale Sts. and tracks of Grand Trunk R.R., (h) 3,341 between John R. St. and alley 1,300 ft. east of Savannah and Greendale Sts., (i) 3,354 between Charleston, Exeter Sts., Seven Mile Rd. and point 190 ft. north of Lantz St., (j) 3,355 between Exeter St., alley east of Derby St., Seven Mile Rd. and tracks of Grand Trunk R.R., (k) 3,360 between Coventry, Lindale and Lantz Sts. and Seven Mile Rd., (l) 3,361 between tracks of Grand Trunk R.R., Lantz, John R. and Coventry Sts., (m) 3,362 between Oakland, Hawthorne, Lantz and State Sts., (n) 3,363 between Seven Mile Rd., Lindale, Irvington and Lantz Sts., (o) 3,364 between Coventry, Irvington, Lantz and State Fair Sts., (p) 3,365 between John R., Coventry, Lantz and State Fair Sts., (q) 3,366 between Cecil, Braden, Martin and Michigan Sts. and point north of Horatio St., (r) 3,367 between Beaconsfield, Rifle Range, Munich and Mack Sts., (s) 3,369 between Buckingham, Bedford, Warren and Harper Sts., from R. D. Baker, 1454 Penobscot Bldg., (a) $228,750, (b) $36,719, (c) $78,849, (d) $14,693, (i) $30,000, (j) $23,773, (m) $16,000, (n) $31,082, (q) $35,000; W. Blanck & Co., 827 Ford Bldg., (a) $155,814, (b) $35,719, (c) $64,382, (f) $26,172, (h) $19,960, (j) $20,125, (q) $20,938; V. Teetaert, 5230 Notre Dame St., (a) $136,630, (e) $14,920, (r) $42,266; Liberty Constr. Co., 917 Chamber of Commerce, (d) $14,-915, (e) $18,950, (f) $33,212, (g) $18,845, (h) $23,997, (o) $16,400 (s) $70,000; S. A. Duponvich, c/o Dept. Pub. Wks., Detroit, (d) $13,100; Lennane Bros., 809 Union Trust Bldg., (e) $18,271; Otis Cement Constr. Co., 806 Hammond Bldg., (f) $25,-146, (g) $14,980 (h) $15,936, (i) $24,591, (j) $16,996; Western Constr. Co., 1208 Ford Bldg., (g) $18,992, (i) $25,956, (k) $8,798, (l) $5,393, (m) $15,850, (n) $23,-990, (o) $13,840, (p) $3,923; McCordic Constr. Co., 400 Penobscot Bldg., (k) $7,775, (l) $4,833, (m) $13,306, (n) $23,688, (o) $13,031, (p) $3,828; Lennane & McIlvenna, 1205 Book Bldg., (k) $8,000 (l) $4,900 (p) $3,850; Langley & Barton, Penobscot Bldg., (r) $42,358, (s) $62,638; Detroit Contr. Co., 827 Ford Bldg., (r) $39,800, (s) $72,165. Noted Oct. 21.

★**Ill., Chicago**—Sanitary Dist., 910 South Michigan Ave., let contract building Calumet Sewage Treatment Plant, to T. J. Forschner Contg. Co. 125th St. and Michigan Ave., $4,900,527; installing conduits in Calumet sewage disposal plant, to Amer. Sewer & Drain Constr. Co., 2816 North Washtenaw Ave., $588,227.

★**Wis., Cedarburg**—City let contract building new sewerage and water-works system, to Brogan & Burns, Green Bay. About $83,000.

★**Wis., Manitowoc**—City let contract excavacating and laying storm and domestic sewers in Philippen St. from 10th to 14th Sts., to Nelesen & Braunel, 306 North 8th St. About $16,500.

★**Wis., Wauwatosa**—Milwaukee Co. (Milwaukee) let contract remodeling sewage disposal plant, here, to Kroening Constr. Co. Majestic Bldg., Milwaukee, $27,252. Noted Oct. 14.

★**Minn., Freeport**—City let contract building 2 mi. sanitary sewerage system, involving 5,852 lin ft 8-10 in. vitr. pipe, 110 lin.ft. 8 in. Class "A" water pipe, 11,667 lin.ft. excav. twenty-three 5 ft manholes, etc., to Schruth & Jackson, 633 Plymouth Bldg., Minneapolis. About $17,000

★**Tex., Dallas**—City let contract building storm sewers in South Lamar St., from Young to Powhatan Sts.; and Cadiz St., from Mill Creek to Austin St., to Cramer & Cullum, Dallas, $29,665.

★**Tex., Wichita Falls**—State Bd. Control, Austin, let contract building sewage disposal plant, at Northwest Texas Insane Asylum, here, to James Constr. Co., Dallas, $47,700.

Wash., Seattle—City received bids building sewers in Hinds St., et al. (a) clay pipe, (b) concrete pipe, from Fiorito Bros., 6022 2nd St., N. W.; (a) $46,095, (b) $43,547; Coluccio & Erickson, Seattle, (a) $46,436, (b) $43,577; Sweeney & Galucci, Seattle, (a) $47,625, (b) $44,264.

Bridges

PROPOSED WORK

Conn., Bridgeport—City plans to build steel bridge with concrete foundation, over Pequonnock River, on East Washington Ave. About $150,000. Private plans.

N. Y., Mays Landing—Bd. Freeholders Atlantic Co. plans to build steel bridge on Mays Landing-Pleasantville Rd. About $45,000. A. H. Nelson, Guarantee Trust Bldg., Atlantic City, engr.

North Carolina—State Highway Comn., Raleigh, plans to build one 70 ft. rein.-con., arch bridge, (solid barrel arch and earth filled spandrels), 18 ft. roadway, on Federal Aid Project 96, Yancey Co., also small rein.-con. bridges and culverts, on Federal Aid Project 48 B, Northampton Co. About $15,000 and $16,000 respectively. W. S. Fallis, state highway engr.

North Carolina—State Highway Comn., Raleigh, plans to build 315 ft. rein.-con. bridge over Roanoke River, at Edwards Ferry, between Halifax and Northampton Counties, cost $125,000; rein.-con. bridges and culverts on Federal Aid Project 68, Sampson Co., $295,000. W. S. Fallis, state highway engr.

Ia., Manchester—Delaware Co. soon receives bids building 174 ft. concrete bridge over Maquoketa River, to have 26 ft. roadway and pedestrian walk on each side. About $50,000. Noted May 27.

Kan., Abilene—City and Comrs. Dickinson Co. having plans prepared by Marsh Eng. Co., engrs., 206 Masonic Temple, Des Moines, for 120 ft. rein.-con. girder bridge, on 3rd St., to have three 40 ft. spans, 28 ft. roadway and two 5 ft. walks. About $35,000.

BIDS DESIRED

N. Y., Long Beach—Until Nov. 10, by Bd. Supervs Nassau Co., Mineola Court House, Mineola, building bascule bridge over Wreck Lead, here. J. Merritt, clk.; advertised in this issue.

Pa., Pittsburgh—Pittsburgh Ry. Co., 435 6th Ave., receiving bids building 110 ft., rein.-con. and steel highway bridge, 31 ft. wide, over Oak Grace Sta. About $30,000.

Mich., Bad Axe—Until Nov. 10, by F. F. Rogers, state highway comr. at office of Bd. Rd. Comrs., Huron Co., building 2 concrete abutments and one 100 ft. low truss with 18 ft. roadway, over Pigeon River, McKinley Twp., involving 38 cu.yd. rein.-con., 309 cu.yd. concrete, 87,000 lb. steel and 200 cu.yd. channel change.

Mo., Jefferson City—Until Nov. 8, by Clerk Cole Co., Court House, building steel bridge over Osage River, near Huber's Ferry, Federal Aid Project 12. E. F. C. Harding, Co. engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Pa., Williamsport** — Lycoming Co. let contract improving Jersey Shore Bridge, involving building creosoted wood floor, constructing sidewalks, painting, etc., to Standard Eng. Co., Toledo, O., $20,744.

★**W. Va., Moundsville**—See "Streets and Roads."

★**North Carolina**—State Highway Comn., at div. office, Greensboro, let contract building small rein.-con. bridges and culverts, on Federal Aid Project 98 A, Moore Co., to J E. Lane & Co, Altavista, Va., $87,-940. Noted Oct 21.

★**Ia., Chariton**—Lucas Co. let contract building one 20 x 20 ft. skew I-beam bridge, one I-beam bridge with two 24 ft. and one 32 ft. spans, 20 ft. roadway, also one 20 x 50 ft. pony truss bridge, to F. E. Marsh & Co., Jefferson, $19,500. Work involves 320 cu. yd. rein.-con., 2,464 lin.ft. wooden piling, 31.3 ton structural steel and 10.8 ton steel bars.

★**S. D., Yankton** — Meriden Highway Bridge Co., Yankton, let contract building substructure for steel and concrete bridge over Missouri River, double deck length, including approaches, 5,820 ft., span length 1,680 ft., to Missouri Valley Bridge & Iron Co., 4th and Walnut Sts., Leavenworth, Kan., $397,500. Total cost, $1,500,000.

★**Kan., Lyndon**—Osage Co. let contract building 114 ft. bridge, 20 ft. roadway, near Quenemo, to C. C. Clark, North Topeka, $23,033; 160 ft. bridge, 20 ft. roadway, 4 mi. north of Quenemo, to Maxwell Constr. Co., Columbus, $28,210. Noted Sept. 30.

★**Ariz., Wickenburg** — State Highway Dept., Phoenix, let contract building two 100 ft. steel trusses for span across Hassayampa River, on Federal Aid Project 31, to Allied Contr. Co., Inc., Omaha, $17,398 Noted Oct. 21.

Streets and Roads

PROPOSED WORK

Mass., Lynn—City plans to widen Merrimac St. About $50,000. W. L. Vennard, city engr.

Conn., Milford—Town plans to pave various streets. About $110,000. Private plans.

New Jersey—State Highway Dept., Trenton, plans to expend $70,000 on experimental road building in South Jersey and Perth Amboy. (No bids on above project.)

Va., Tazewell—Tazewell Co. plans to pave 1 1/5 mi. West Graham Rd., concrete. About $35,000. H. L. Clairborne, Fredericksburg, engr.

North Carolina—State Highway Comn., Raleigh, plans to improve 11.6 mi. road from Stokes-Surry Co. line, via Pinnacle and King to Stokes-Forsyth Co. line, Federal Aid Project 121, 18 ft. wide, Stokes Co. Work includes clearing and grubbing, common and rock excav., one 70 ft. and one 400 ft. bridge, concrete culverts, etc About $130,000. W. S Fallis, state highway engr.

North Carolina—State Highway Comn., Raleigh, had plans prepared for 12.5 mi. road between Leechville and point north of Swann Quarter, Federal Aid Project 88, 30 ft. wide, involving 91 acres clearing and grubbing, 6,410 cu.yd. common excav., 160,-750 cu.yd. borrow (or dredging), nine 3 x 3-4 x 8 ft. rein.-con. culverts, two 40 ft. rein.-con. deck girder, one 18 ft. and one 20 ft. rein.-con. slab bridges, cost $160,000; 4.2 mi. road running from Swan Quarter, north to connect with above-mentioned road, Federal Aid Project 87, 30 ft wide, Hyde Co., 137,644 cu.yd. earth borrow, 1,172 18-24 in. pipe, 466 cu.yd. Class A concrete, 34,280 lb. reinforcing steel, 390 ft. untreated timber piling, etc., $130,000. W. S. Fallis, state highway engr.

S. C., Charleston—Comrs. Charleston Co. plan to build road from city line here to Otranto Fork, 80 ft. wide. J. W. Martin, Charleston, engr.

S. C., Spartanburg—City voted $300,000 bonds to improve various streets. Noted May 6.

Fla., Sebring—Town plans election to vote on $115,000 bonds to pave 14-17 mi. Scenic Highway, Lake Rudy Blvd., Clinch Show Drive, Ida Branch, Wall, Orange, et al. Sts., 9 and 15 ft. wide, vitr. brick, concrete curbing. Total cost, $345,000.

Fla., Tarpon Springs—City plans election to vote on $61,000 bonds to pave 2.6 mi Lemon, Lime, Orange, Pine, Park, Chillito, Hibiscus, et al. Sts., Lewis, Grosse, Safford and Ring Aves., 18 ft. wide. Work includes vitr. brick pavement and 5.2 mi. concrete curbing

Fla., Tavares—Comrs. Lake Co. plan election to vote on $625,000 bonds to build 24 mi. road from Mt. Dora to Tavares, Eustis, St. Johns River, Cassia and Sorrento, 16 ft. wide, asphalt and sand clay. E. J. Close, Tavares, engr.

O., Cleveland—City plans to grade, drain, curb and pave with brick on concrete base East 117th St. from Union to Craven Aves. and East 107th St. from Euclid to Wilbur Aves. About $105,250. R. Hoffman, 618 City Hall, engr.

O., Cleveland—City plans to grade, drain and pave Willowdale Ave. and West 18th St. between West 25th St. and Forestdale Ave.; Baltic Rd. between West Blvd. and West 110th St., sheet asphalt on concrete

Streets and Roads (Continued)

base, cost $144,000; Chester Ave. from East 17th to East 21st Sts., Carroll Ave. from West 25th to West 28th Sts., asphalt or brick on concrete base, $102,000. R. Hoffman, 618 City Hall, engr.

O., Cleveland—City plans to grade, drain, curb and pave Oakwood Rd. from Dundee to Eddy Rds., Fidelity Ave. from West 105th to West 110th Sts., Montana Ave. from West 58th St. to westerly end, brick on concrete base, cost $56,000; East 106th St. from Union to Elliott Aves; Evelyn Ave. from Scranton Rd. to end of pavement, Hood Ave. from West 21st to West 28th Sts., brick or bituminous concrete on concrete base, $84,000. R. Hoffman, City Hall, engr.

Ill., West Frankfort—Denning Twp. voted $60,000 bonds to build concrete road west of here. C. B. Mautz, Benton, engr.

Ia., Lamont—City soon receives bids paving 25 blocks, rein.-con., asphaltic concrete, bitulithic or brick. About $80,000. Shockley Eng. Co., 801 Graphic Arts Bldg., Kansas City, Mo., engrs.

Minn., International Falls—City plans to expend about $200,000 for street improvements next year.

Kan., Fredonia — Wilson Co. had plans prepared improving 2.26 mi. road, 4 mi. west of here, 16 ft. wide, involving 9,736 cu.yd. earth and 600 cu.yd. borrow excav., 21,769 sq.yd. feather edge gravel, 130 cu. yd. Class "A," 77 cu.yd. Class "C" and 6 cu.yd. handrail concrete, 11,780 lb. steel, 224 ft. 15-18 in. vitr. clay pipe, etc.

Neb., Wisner—City rejected bids received Oct. 7, paving streets in Dists. 1, 2 and 3. Work will be readvertised in spring. Noted Sept. 23.

Missouri—State Highway Dept., Jefferson City, plans to build 8.5 mi. Alexandria-Wayland Rd. (Wayland Special Rd. Dist.), Clark Co., involving 34,000 cu.yd. earth excav., 62,022 sq.yd. gravel pavement, 15 culverts, cost $81,261; 1.75 mi. Keokuk-Wayland Rd. (Wayland Special Rd. Dist.), Clark Co., 9,000 cu.yd. earth excav., 16,521 sq.yd. gravel pavement, 3 culverts, one 30 ft. concrete bridge, $35,410; 4 mi. Jefferson Highway (Blue Star Special Rd. Dist.), Barton Co., 4,848 cu.yd. earth excav., 28,160 sq.yd. Joplin chats pavement, 8 in. deep, 12 ft. wide, 2 culverts, extensions to 5 old culverts, one 30 ft. rein.-con. bridge, $16,000; 7 mi. Carthage-Springfield Rd. (Avilla Special Rd. Dist.) Jasper Co., 22,765 cu.yd. earth excav., 42,280 sq.yd. gravel surfacing, 7 culverts, extensions to 14 old culverts, $29,400; 6 mi. Carthage-Springfield Rd. (Carthage Special Rd. Dist.) 100 cu.yd. rock excav., 36,240 sq.yd. gravel pavement, 5 in. deep, 12 ft. wide, 7 culverts, extensions to 10 old culverts, $31,200; 13.5 mi. Kings Highway, Pemiscot Co., 26,500 cu.yd. earth excav., 26 culverts, one 70 ft. and one 55 ft. steel, two 35 ft., one 25 ft. and one 40 ft. concrete bridges, $43,089; 22 mi. Cape Girardeau-Springfield Rd., Bollinger Co., 100,000 cu.yd. excav. 10 per cent rock, 77,440 sq.yd. gravel pavement, 70 culverts, one 300 ft. concrete, one 150 ft. and one 60 ft. steel bridges, $154,455.

Missouri—State Highway Dept., Sedalia, received no bids Oct. 15 building 4.76 mi. Sedalia-Marshall Rd., 24 ft. wide, Federal Aid Project 122, Pettis Co., cost $57,270. Noted Sept. 30.

Mo., Columbia—Boone Co. having surveys made for grading and building bridges on 40 mi. road, 24 ft. wide. Elston, Axon & Russell, 309-11 McDaniel Bldg., Springfield, engrs.

Mo., Eminence—Shannon Co. having surveys made for grading and building bridges on 20 mi. road, 24 ft. wide. Elston, Axon & Russell, McDaniel Bldg., Springfield, engrs.

Mo., Greenfield—Dade Co. having plans prepared for graveling 32 mi. road, 24 ft. wide. Elston, Axon & Russell, 309-11 McDaniel Bldg., Springfield, engrs.

Mo., Herman—Gasconade Co. having surveys made for grading and building bridges on 20 mi. road, 24 ft. wide. Elston, Axon & Russell, 309-311 McDaniel Bldg., Springfield, engrs.

Mo., Linn — Osage Co. having surveys made grading and building bridges on 15 mi. road, 24 ft. wide. Elston, Axon & Russell, McDaniel Bldg., Springfield, engrs.

Mo., Salem—Dent Co. having surveys made for grading and building bridges on 18 mi. road 24 ft. wide. Elston, Axon & Russell, McDaniel Bldg., Springfield, engrs.

Mo., Trenton—City plans to pave 21 block East 7th and La Clede Sts., 4 blocks 36 ft. wide, 17 blocks 24 ft. wide, tarvia pavement, concrete curb and gutter. Engineer not selected.

Mo., Van Buren—Carter Co. having plans prepared for grading and building bridges on 4 mi. road, 24 ft. wide. Elston, Axton & Russell, McDaniel Bldg., Springfield, engrs.

Tex., Kaufman—Kaufman Co. rejected bids received Sept. 28, surfacing with ⅜-in. bituminous topping, 10.54 mi. Highway 40 through Precinct 1, and 16.21 mi Highway 15, Federal Aid Project 130. Noted Sept. 2 and 9.

Tex., Marlin—Falls Co. rejected bids received Sept. 30, bituminous topping 6.78 mi. Highway 2 through Precinct 1. Work will be readvertised. Noted Oct. 14.

Tex., Paris—Lamar Co. rejected bids received Sept. 24, grading, surfacing and draining 4.8 mi. Highway 19 east and west through here; 4.85 mi. Highway 5 north and south through here. Work will be readvertised. W. M. Fooshu, co. engr. Noted Oct. 7.

Tex., Sanderson—Terrell Co. voted $250,000 bonds to build link across county on Robert E. Lee Highway.

Tex., Tyler—Smith Co. rejected bids received Oct. 5, building 2.45 mi. Highway 37 north from Linsdale. Above action taken on account of unstable and declining condition of market for bonds. Work postponed until later date. D. K. Caldwell, co. engr. Noted Sept. 30.

Tex., Wichita Falls—City voted $340,000 bonds to pave various streets. J. Montgomery, city engr. Noted Oct. 7.

Cal., San Diego—San Diego Electric Ry. Co., Union Bldg., San Diego, plans to expend $40,000 during fiscal year on repaving along tracks and replacing tracks with heavy rails.

BIDS DESIRED

R. I., Providence—Until Nov. 17, by Water Supply Bd., City Hall, surfacing 3.4 mi. Plainfield Pike, bituminous concrete. F. E. Winsor, ch. engr.; advertised in this issue.

N. Y., New York—Until Nov. 3, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with granite block on concrete foundation roadway of Chambers St., curb to rail, from Greenwich to West Sts. and Canal St., between tracks, from Bowery to Centre St. and from Centre St. to Bway.

N. Y., New York—Until Nov. 4, by H. H. Curran, pres. Manhattan Boro., regulating and repaving with sheet asphalt on concrete foundation, roadway of 54th St. from 7th to 9th Aves. Noted Oct. 21.

Pa., Curwensville—Until Oct. 30, by G. W. Anderson, pres. Bd. Supervs. Pike Twp., building 3,000 ft. road from Bloom Farm to Ferguson Twp., 18 ft. wide, bituminous. About $18,000. J. A. Dale, Curwensville, engr.

Maryland—Until Nov. 9, by State Rds. Comn., 601 Garrett Bldg., Baltimore, grading and draining 2.25 mi. state highway from end of Contr. 520 toward New Windsor, Carroll Co., Contr. CI-27. J. N. Mackall, chn.; advertised in this issue.

S. C., Newberry—Until Nov. 8, by J. C. Samples, superv. Newberry Co., clearing and top soiling 4.231 mi. Piedmont Highway, Federal Aid Project 65. L. M. Weisiger, Laurens, engr.

La., Homer—Until Nov. 8, by Highway Dept., Bd. State Engrs., 332 Maison Blanche Annex, New Orleans, building 17.75 mi. Sect. A, Homer-Arcadia Highway, and 17.26 mi. Sect. B, Homer-Magnolia Highway. D. Buie, state highway engr.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Nov. 3, Knox Co., Vincennes, 3,075 ft. C. J. Thompson Rd., Vincennes Twp., concrete; 11,668 ft. F. J. Kapps Rd., Vincennes Twp., concrete. J. S. Nicholson, aud.

Nov. 4, Porter Co., Valparaiso, 0.73 mi. C. W. Hall et al. Rd., Center Twp., gravel; 2.77 mi. R. M. Phillips Rd., Porter Twp., gravel. B. H. Kinne, aud.

Nov. 15, Lake Co., Crown Point, D. Brown et al. Rd., North Twp., gravel. G. M. Foland, aud.

Michigan—Until Nov. 5, by State Highway Comn. at dist office, 221 Pratt Bldg., Kalamazoo, placing beach gravel adjacent to Federal Aid Project 32, Allegan Co., involving 18,000 cu.yd. gravel stock piles.

Michigan—Until Nov. 9, by State Highway Comn. at office of Bd. Comrs. Muskegon Co., Muskegon, grading and drain 7.936 mi. Federal Aid Project 43, Sect Muskegon Co., involving 41,830 cu.yd. co excav., 1,101 lin.ft. pipe culverts, etc. No Oct. 21.

Michigan—Until Nov. 9, by State Highway Dept., at dist office, Haskins Blk., Cadillac, grading, draining and surfacing 3.4 mi. State Trunk Line Rd. 13-9, Sect. Wexford Co., involving 33,306 cu.yd. ear excav., 32,597 sq.yd. base course grave slag gravel or stone gravel surface.

Minn., Duluth—Until Jan. 2, by St Louis Co., widening, improving and building concrete culverts on 31 mi. Mesaba Trunk Rd. between Iron Junction and Proctor; widening, improving and graveling 3 mi. Meadowlands Trunk Rd. between Hibbing and Meadowlands. About $150,000 and $125,000 respectively. R. W. Acton co. engr.

Montana—Until Nov. 5, by State Highway Comn., Helena, building 5 mi. Federal Aid Project 88, Sanders Co., involving 38,128 cu.yd. excav., 30,305 sta. yd. overhaul 2,049 cu.yd. gravel surfacing, 33 cu.yd Class "B" concrete in headwalls, 801 lin.ft 12-24 in. pipe culvert, 26 cu.yd. Class "A" and 48 cu.yd. Class "B" concrete in bridges, 29,575 ft. lumber in guard rail, 14,516 ft. lumber in bridges, etc. About $30,000. J. N. Edy, state highway engr.

Mo., St. Louis—Until Nov. 16, by city, improving 3,000 ft. Natural Bridge Rd. from Union Blvd. to Clara Ave., 25 ft. wide, involving 8,335 sq.yd. vitr. brick and 3,000 lin.ft. granite curbing. About $62,200. W. W. Horner, city engr.

Tex., Bay City—Until Nov. 13, by J. F. Perry, judge Matagorda Co., surfacing and draining 7.31 mi. Highway 12-A, Federal Aid Project 135, involving 74.16 cu.yd. 1:2:4 concrete, 13,720 cu.yd. shell, 5,750 lb. reinforcing steel and 33,169 cu.yd. earth borrow. About $53,735. J. C. Carrington, Bay City, co. engr. Noted June 10

Tex., San Marcos—Until Nov. 8, by J. R. Wilhelm, judge Hays Co., grading, surfacing and draining 13.35 mi. Fredericksburg Rd., involving 24.4 acres grubbing, 344 cu. yd. rubble masonry, 10,800 lb. reinforcing steel, 21,955 cu.yd. earth, 422 cu.yd. solid rock and 1,348 cu.yd. loose rock excav., 166.5 cu.yd. 1:2:3½, 69.8 cu.yd. 1:2:4 and 70.6 cu.yd. 1:2½:5 concrete, etc. About $40,445. J. W. Puckett, Buda, co. engr.

Tex., San Marcos—Until Nov. 8, by J. W. Wilhelm, judge Hays Co. grading, surfacing and building concrete culverts on 3.7 mi. Highway 20-A, involving 11 acres clearing and grubbing, 23 cu.yd. concrete, 414 lb. reinforcing steel, 6,188 cu.yd. crushed rock at quarry, 9,191 cu.yd. borrow, 6,348 cu.yd. earth and 501 cu.yd. rock excav., etc. About $24,000. J. W. Puckett, Buda, co. engr.

Tex., Waxahachie—Until Nov. 8, by F. L. Wilson, judge Ellis Co., gravel surfacing 23 mi. Rd. Dist. 3, involving 43,000 cu.yd. gravel; grading, gravel surfacing and draining 8.5 mi. Ennis-Waxahachie Rd. and 7 mi. K. Fearls Rd., involving 45,000 cu.yd. grading, 700 cu.yd. concrete in culverts, 36,000 cu.yd. gravel, etc. G. G. Edwards, Ennis Natl. Bank Bldg., Ennis, engr.

Arizona—Until Nov. 11, by T. Maddock, state highway engr., at office of Bd. Superv Apache Co. (St. John), building Sect. A, Holbrook-St. Johns Highway, Federal Aid Project 6, near Hunt, 20 ft. wide, Apache Co., involving 1800 cu.yd. earth excav., 9,700 cu.yd. borrow, 170 cu.yd. concrete and 5,600 cu.yd. gravel surfacing, etc.

Ariz., Tucson—Until Nov. 3, by Pima Co. Highway Comn., New City Hall, building 8 mi. Aravaca Rd. beginning on Tucson-Nogales Highway, 2 mi. south of Continental and extending west toward Aravaca, involving 32,000 cu.yd. grading, 361 cu.yd. concrete, 11,700 cu.yd. surfacing and other incidental work. R. E. Fishburn, chn.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Massachusetts**—State Dept. Pub. Wks., Div. Highways, Boston, let contracts paving 5,000 ft. state highway, Oxford, bituminous macadam, to Hassam Paving Co., 17 Federal St., Worcester, $41,000; 700 ft. state road, Shrewsbury, bituminous macadam, to A. Palladino, 51 Circuit Ave., Newton Highlands, $9,414. Noted Oct. 21.

★**Mass., Boston**—City let contract grading and paving sidewalks in Irving West Adams Park (Roslindale), to A. G. Tomasello, 69 Gibson St., Dorchester, $17,210;

Streets and Roads (Continued)

building brick walks and oak seats in Parkman memorial bandstand, on Common, to J. C. Coleman & Sons Co., 1620 Tremont St., Roxbury, $25,000.

★**Mass., West Roxbury** (Boston P. O.)—Dept. Pub. Wks., City Hall Annex, Boston, let contract paving Castleton, Halifax and Zamora Sts., sheet asphalt, to J. Kelly Co., 5 Ulmer St., Roxbury, $23,316.

★**Connecticut** — State Highway Dept., Hartford, let contract graveling 2,950 ft. Mill Plain Rd., Danbury, to L. Loughi & Bros., 43 Center St., Torrington, $17,904. Noted Oct. 14.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., receved bids Oct. 20, repaving Richmond Turnpike from Louis St. to Clove Lake, from C. Vanderbilt, $109,000; W. P. McDonald, Port Richmond, $115,138; Awixa Corp., $117,334. Noted Oct. 14.

★**N. J., Livingston**—Essex Co. (Newark) let contract grading, curbing and excavating Laurel Ave., to Nesto Contg. Co., 64 State St., Newark, $17,750.

★**N. J., New Brunswick**—Middlesex Co. let contract paving .5 mi. Lincoln Blvd., 22 ft. wide, to M. I. Demarest, Sewaren, $31,253.

★**N. J., Phillipsburg**—Phillipsburg Transit Co. let contract laying 3,960 ft. brick on concrete bed, 21 in. each side of rails, to Korp & Korp, Phillipsburg. About $20,000.

★**W. Va., Moundsville**—Comrs. Marshall Co. let contract grading and draining Round Bottom Rd., Clay Dist., to J. W. Travis and A. R. Acker, Moundsville; building 25 ft. arch, to Luten Bridge Co., Clarksburg. About $25,000.

★**North Carolina**—State Highway Comn., div. office, Greensboro, let contract improving 9.64 mi., Federal Aid Project 101B, 18 ft. wide, Randolph Co., and 21.82 mi. road betweeen Pittsboro and Chatham-Randolph Co. line, 18 ft. wide, Chatham Co., to J. T. Plott, Greensboro, $62,560 and $125,370, respectively; 5 mi. road from Sparta to Glade Creek, Federal Aid Project 125A, 12 ft. wide, Alleghany Co., to W. E. Graham, Mt. Ulla, $139,510; 11.93 mi. road from Virginia State line to Yanceyville, Federal Aid Project 112, 18 ft. wide, Caswell Co., to J. M. Gregory & Co., Laurens, S. C., $63,300. Noted Oct. 21.

North Carolina—State Highway Comn., at dir. office Kinston, received bids Oct. 20, improving (1) 11 mi. road between Duplin-Pender Co. line, via Burgard to New Hanover line, Federal Aid Project 81, 18 ft. wide, Pender Co., involving (a) 31 acres clearing and grubbing, 112,200 cu.yd. common excav. and borrow, 576 ft. 15 and 24 in. terra cotta pipe, 68,800 cu.yd. topsoiling, etc., (b) 1,908 cu.yd. Class A concrete, 160,790 lb. reinforcing steel, 1,400 lin.ft. expansion plates and bolts, 2,250 ft. untreated timber piles, etc.; (2) 12.03 mi. road from Broad River Bridge via Reelsboro to Bayboro, Federal Aid Project 90, 30 ft. wide, Pamlico Co., (a) 21 acres clearing and grubbing, 55,730 cu.yd. excav. and borrow, etc., (b) 991 cu.yd. Class A concrete, 84,440 lb. reinforcing steel, 1,100 lb. expansion plates and bolts, 2,790 ft. untreated timber piling, etc.; (3) 9.57 mi. road between Ayden and Greenville, via Winterville, Federal Aid Project 65, 30 ft. wide, Pitt Co., (a) 11 acres clearing and grubbing, 56,885 cu.yd. excav. and borrow, 43,500 cu.yd. sta. overhaul, (b) 844 cu.yd. Class A concrete, 63,570 lb. reinforcing steel, 500 lb. expansion plates and bolts, 1,410 ft. untreated timber piling, etc., from Porter & Boyd, Realty Bldg., Charlotte, (1a and b), $249,024 (2a and b), $116,922; Eagle Eng. Co., New Bern, (2b) $57,697; Hudwell & Hodges, New Bern, (2a) $58,177; Porter & Peck, Greenville, (3a), $49,897.

★**N. C., Asheville**—City let contract improving main streets, involving 7,500 cu.yd. excav. and grading, 24,600 sq.yd. sheet asphalt, 5,500 lin.ft. combination concrete curb and gutter, 2,500 sq.yd. sidewalk, etc., to R. G. Lassiter, Oxford. About $124,600.

★**S. C., Charleston**—Comrs. Charleston Co. will build 7 mi. Mary and Johns Island Rd., concrete. About $400,000. Work will be done by day labor. J. W. Martin, Charleston, engr.

★**S. C., Darlington**—Comrs. Darlington Co. let contract topsoiling 30 mi. road from Darlington to Chesterfield Co. line, sand clay, to J. T. Plott, Greensboro, N. C. About $140,000. Noted Sept. 30.

SEWAGE TREATMENT PLANT—CHICAGO, ILL.

Bids were received by Sanitary District of Chicago, 910 South Michigan Ave., Oct. 7th for constructing Calumet Sewage Treatment Plant, from (A) T. J. Forschner Contg. Co., 125th St. and Michigan Ave., (awarded contract); (B) Ready & Callahan Coal Co., 133 West Washington Ave.; (C) Marquette Constr. Co., 111 West Washington St. The unit bids were as follows:

	A	B	C
150,000 cu.yd. earth excavation	$6.90	$8.00	$9.25
5 cu.yd. rock excavation	5.00	5.00	5.00
7,500 sq.yd. macadam pavement	7.00	6.00	5.00
750 sq.yd. stone walks	3.40	3.50	2.50
18 inlet basins	80.00	135.00	125.00
1,250 cu.yd. concrete, Class "A"	59.00	73.00	79.00
28,000 cu.yd. concrete, Class "B"	64.00	72.00	75.00
250 cu.yd. concrete, class "C"	25.00	32.00	54.00
3,000,000 lb. reinforcing steel	.23	.22	.15
350,000 lb. reinforcing mesh	.25	.27	.25
40,000 lb. miscellaneous steel	.15	.30	.32
40,000 lb. iron castings	.30	.28	.20
850 lin.ft. 6-in. cast-iron water pipes	7.00	5.50	5.50
165,000 lb. cast-iron pipe	.20	.20	.20
150 lin.ft. 8-in. tile pipe	1.50	1.00	1.00
800 lin.ft. 12-in. tile pipe	3.00	2.00	1.50
150 lin.ft. 24-in. tile pipe	6.50	5.00	4.00
3,000 lin.ft. 4-in. tile underdrain	1.00	2.00	.90
100 cu.yd. brick masonry	60.00	55.00	65.00
3,000 cu.yd. sand fill	7.00	9.00	9.00
40,000 lb. galvanizing	.20	.20	.15
Venturi meters (lump sum)	79,892.00	65,000.00	55,000.00
Sedimentation tank equipment (lump sum)	493,290.00	410,000.00	475,000.00
Sludge bed equipment (lump sum)	79,874.00	70,000.00	60,000.00
Aëration tank equipment (lump sum)	59,910.00	55,000.00	60,000.00
Aëration settling tank equipment (lump sum)	49,928.00	35,000.00	40,000.00
Sprinkling filter (lump sum)	133,784.00	130,000.00	98,000.00
Dosing tank and sec. settling tank equipment (lump sum)	44,946.00	35,000.00	45,000.00
Air piping (lump sum)	33,957.00	31,000.00	30,000.00
Supply, effluent, sludge and drain piping (lump sum)	28,964.00	20,500.00	26,000.00
Industrial railway (lump sum)	55,917.00	57,000.00	40,000.00
10M. feet b.m. sheeting	50.00	50.00	50.00
Extended totals	$4,900,527	$5,138,705	$5,211,025

SEWAGE CONDUITS—CHICAGO, ILL.

Bids were received by Sanitary District of Chicago, 910 South Michigan Ave., Oct. 7th, for installing sewage conduits in connection with the Calumet Sewage Disposal Plant, from (A) Amer. Sewer & Drain Constr. Co., 2816 North Washtenaw Ave., (awarded contract); (B) Nash Bros., 10 South La Salle St.; (C) T. J. Forschner Contg. Co., 125th St. and Michigan Ave. The unit bids were as follows:

	A	B	C
1,600 lin.ft. 3-barreled conduit—low level	$242.50	$257.00	$265.00
720 lin.ft. 3-barreled conduit—high level	174.50	188.50	210.00
120 lin.ft. 9-foot conduit	103.00	126.00	118.50
Connection at Calumet pumping station (lump sum)	11,424.25	15,120.00	15,500.00
Junction chamber at Cal. Treat. Wks. (lump sum)	3,272.50	4,250.00	11,000.00
125 lin.ft. standard manholes	15.00	18.00	16.50
250,000 lb. reinforcing steel	.11	.18	.22
6,000 lb. castings and miscellaneous metals	.14	.20	.20
100 M. ft. b.m. timbering	129.00	135.00	137.50
50 cu.yd. additional excavation, open cut	10.00	14.00	10.50
10 cu.yd. additional excavation, tunnel	21.00	16.00	22.50
100 cu.yd. additional concrete, class B, open cut	20.00	24.00	27.50
10 cu.yd. additional concrete, class B, tunnel	28.00	31.00	33.75
10 cu.yd. additional concrete, class C, open cut	21.00	26.00	23.75
10 cu.yd. additional concrete, class C, tunnel	24.00	27.50	32.75
10 cu.yd. brick work	57.50	50.00	65.00
Extended totals	$588,227	$666,845	$692,985

★**Ohio**—State Highway Comn., Columbus, let contract grading, building bridges and culverts and paving roads in following counties:

Athens Co., Sect. "R" Logan-Athens Rd., 0.637 mi., brick on rolled foundation, to F. Beckler, Athens, $41,093.

Clermont Co., Sect. "N-2" Milford-Hillsboro Rd., 3.548 mi., waterbound macadam, W. Hogan, Milford, O., $100,100.

Sect. "A" Milford-Vera Cruz Rd., 2.433 mi., waterbound macadam, C. L. Wright, Cincinnati, $69,552.

Hancock Co., Sect. "D" Lima-Sandusky Rd., 6.047 mi., rein.-con., Dorsey Constr. Co., Findlay, $258,763.

Hocking Co., Sect. "P-1" Logan-New Lexington Rd., 5.351 mi., bituminous macadam, J. Petrie, Logan, $214,276.

Sect. "N" Logan-Chillicothe Rd., 6.53 mi., waterbound gravel, Curry & Hayes, Eaton, $151,797.

Lorain Co., Sect. "O" Medina-Norwalk Rd., 2.5 mi., waterbound macadam, Aldrich, Ellison & Betts, Spencer, $63,264.

Mercer Co., Sect. "K-1" Celina-Greenville Rd., 1.5 mi., rein.-con., M. L. Hinton Co., Celina, $65,035.

Pike Co., Sect. "A" Waverly-Coopersville Rd., 6.1403 mi., waterbound gravel, W. D. Winchell Co., 337 Siebert St., Columbus, $40,349.

Sect. "B" Waverly-Coopersville Rd., 6.734 mi., waterbound gravel, C. A. Arthur, Jackson, $34,707.

Summit Co., Sect. "A" Akron-Youngstown Rd., 2.49 mi., bituminous concrete, Highway Constr. Co., 903 Lorain Co., Bank Bldg., Elyria, $122,696.

Sect. "Q" Akron-Medina Rd., 2.27 mi., rein.-con., W. A. Lyon, Ravenna, $129,167.

Williams Co., Sect. "D" Bryan-Wauseon Rd., 1.582 mi., bituminous macadam, J. A. Elder, Bryan, $67,017.

Meigs Co., Sect. "L" Pomeroy-Athens Rd., 2.839 mi., grading, constructing bridges and culverts, Stone & Constr. Co., Maumee, $42,703.

Sect. "M" Pomeroy-Athens Rd., 4.007 mi., grading roadway and constructing bridges and culverts, J. P. Long, Centerburg, $79,166.

Lake Co., Sect. "A" Painesville-Ravenna Rd., 4.735 mi., grading, constructing bridges and culverts, Wilms-Hogan Constr. Co., Cleveland, $29,491.

Defiance Co., Sect. "E" Bryan-Ft. Wayne Rd. 1.77 mi., constructing bituminous macadam top course and shaping berms and ditches, D. M. Roach, Defiance, $21,686.

Jefferson Co., Sect. "J" Ohio River Rd., 0.085 mi., removing rock cliff and sealing clay seam, H. Brown & Allen, Ellsworth Station, O., $11,265. Noted. Oct. 14.

★**O., Cleveland**—City let contract surfacing East 118th St., involving 2,090 sq.yd. asphalt, to Cleveland Trinidad Paving Co., The Arcade, $15,928.

★**O., Westerville**—Franklin Co., Columbus, let contracts grading, draining and paving with brick, 2,087 ft. Sect. 1 State St., 30 ft. wide, also 1,038 ft. Sect. 2 State St., 30 ft. wide, to W. E. Schwartz, Sunbury Pike, Columbus, $58,943 and $31,525 respectively. Noted Oct. 21.

★**O., Youngstown**—Mahoning Co. let contract repaving, 1,200 ft. Mahoning Ave.

Streets and Roads (Continued)

bridge, 60 ft. wide, creosote wood block, to Capitol Constr. Co., Dollar Bank Bldg., $73,890.

★**Ind., Terre Haute**—City let contracts improving 1,400 ft. North 25th St., 20 ft. wide, and 1 mi. North 19th St., to Foulkes Contg. Co., 705 Ohio St., $14,000 and $69,000 respectively. Noted Aug. 19.

★**Mich., Lake City**—Bd. Rd. Comrs. Missaukee Co. let contract grading, draining and surfacing 5.406 mi. State Trunk Line Rd. 55-2, Sect. B, 16 ft. wide, to C. L. Simon and P. J. Theisen, Big Rapids, $48,958. Noted Oct. 7.

★**Wisconsin** — State Highway Comn., Madison, let contract graveling 2.71 mi. Madison-Sauk City Rd. (Springfield Hill), Federal Aid Project 12, Dane Co., to G. E. Fitton & Son, 838 East Johnson St., Madison, $18,738. Work involves 4,931 cu.yd. gravel surfacing, at $3.80 per cu.yd. Noted Oct. 7.

★**Wisconsin**—State Highway Comn., Madison, let contract improving Alma-Mondovi Rd., Federal Aid Project 135, Buffalo Co., to Ofstie & Mulheron, Spring Valley, $46,092.

★**Ia, Sioux City**—City let contract paving 6,600 sq.yd. Leech St., to Dayton Constr. Co., Kansas City, Mo. About $30,000.

★**Minn., Shakopee**—Scott Co. let contract building 7 mi. Federal Aid Project 93, State Rd. 9, involving 6 acres clearing, 4 acres grubbing, 181,000 cu.yd. excav., 418,000 cu.yd. overhaul, 11,500 cu.yd. gravel surfacing, etc., to J. Cox, 567 Gilfillian Bldg., St. Paul, $102,448.

★**N. D., Carrington**—Comrs. Foster Co. let contract grading 5 mi. Federal Aid Project 102, 24 ft. wide to Stanley Bros. Grand Forks, $16,845.

★**N. D., Stanley**—Comrs. Mountrail Co. let contract building 12 mi. Federal Aid Project 75, to Stanley Bros., Grand Forks. Work involves 119,246 cu.yd. excav., at $.60 per cu.yd., 9,335 cu.yd. overhaul, $.10, etc., total cost, about $90,000

Missouri—State Highway Dept., Fayette, received no bids Oct. 13, building 1 mi. Natl. Old Trails Rd., 24 ft. wide, Federal Aid Project 95, Howard Co. About $14,459. Noted Sept. 30.

★**Missouri**—State Highway Dept., Jefferson City, let contract building 1.1 mi. road from Novinger, westward, 24 ft. wide, State Aid Project S 20.6, Adair Co., to W. Stoecker, City Hall Bldg., Webster Groves, $16,735. Noted Oct. 21.

Missouri—State Highway Dept., Keytesville, received bids Oct. 13, building (1) 1.6 mi. Sect. 2 state road from Chariton River southeastward, State Aid Project S 20.8, Chariton Co., involving (a) 4,806 cu.yd. earth excav., (b) 11,624 cu.yd. borrow, (c) 2.2 cu.yd. Class "C" concrete masonry, etc. (2) 1.13 mi. Sect. 1 state road from Mussel Fork Creek westward, State Aid Project S 20.8, Chariton Co., (a) 896 cu.yd. earth excav., (b) 37,101 cu.yd. borrow, etc., from C. Parker, Keytesville, (1a) $0.60 per cu.yd., (1b) $0.50, (1c) $30, (2a) $0.60, (2b) $0.50, total cost $8,948, (2) $9,982; W. E. Gaugh and H. Washam, Moberly, (1a) $0.65, (1b) $0.55, (1c) $30, (2a) $0.65, (2b) $0.55, total cost (1) $9,766, (2) $21,981; T. Maloney, St. Louis, (1a) $0.60, (1b) $0.60, (1c) $25, (2a) $0.60, (2b) 0.60, total cost (1) $10,100, (2) $24,594. Noted Sept. 30.

★**Missouri**—State Highway Dept., St. Joseph, let contract grading and building culverts on 20.02 mi. St. Joseph-Atchison Rd., Buchanan Co., to M. Costello, South 22nd St., St. Joseph, $156,774. Former contracts cancelled.

★**Tex., Ft. Worth**—Tarrant Co. let contract grading and surfacing 2.27 mi Ft. Worth-Webb Rd., involving 28,000 sq.yd. asphaltic concrete, to Womack Constr. Co., Ft. Worth, $31,472.

★**Tex., Jourdanton**—Atascosa Co. let contract grading, surfacing and draining 13.47 mi. Highway 9 from Pleasanton to Bexar Co., 16 ft. wide, to W. T. Montgomery, Alamo, Bank Bldg., San Antonio, $187,639; including 10% for engineering and contingencies, also freight charges on gravel.

Work involves 26.8 acres clearing and grubing, 55,183 cu.yd. earth borrow excav., 31,610 cu.yd. gravel, 523.2 cu.yd. Class "A" and 93.8 cu.yd. Class "B" concrete. Noted Aug. 19.

★**Tex., Marlin**—Falls Co. let contract grading, surfacing and draining 6.78 mi. Highway 2 through Precinct 1, 17 ft. wide, to Phipps & Whatley, Marlin, $97,151; including 10% for engineering and contingencies. Noted Oct. 14.

★**Tex., Paris**—Lamar Co. let contracts for (1) improving 27.7 mi. Highway 5 from Fannin Co. to Red River, involving 7.82 acres clearing and grubbing, 3,250 cu.yd. ditching and 173,177 cu.yd. borrow, (2) 22.16 mi. Highway 19 from Delta Co. to Oklahoma state line, 29.6 acres clearing and grubbing, 1,850 cu.yd. ditching, 165,066 cu.yd. borrow excav., etc., to Smith Bros. and Healey Constr. Co., c/o Smith Bros., Crockett, (1) $61,144, (2) $68,718, both including 10% for engineering and contingencies. Noted Oct. 7.

Tex., Rockport—Aransas Co. received bids Oct. 8, improving 9.51 mi. Rockport-Aransas Rd., 16 ft. wide, (a) 9,515 mi. reshaping shoulders, surfacing, hauling and placing 23,168 cu.yd. mud shell, (b) furnishing mud shell, from Heldemfels Bros., Rockport, (b) 16,086; Aransas Shell Constr. Co., Aransas Pass, (a) $49,380; Miller Constr. Co., Port Lavaca, (a) $51,500. Noted Sept. 30.

★**Tex., San Antonio**—Bexar Co. let contract surfacing 6.2 mi. Highway 9, Pleasanton Rd., 1 in. rock asphalt treatment, to Chapin-Coglazier Constr. Co., Moore Bldg., $43,542; including 10% for engineering and contingencies. Noted Oct 21.

★**Tex., San Antonio**—City let contracts grading, curbing and paving .52 mi. New Braunfels Ave., from Commerce to Dilworth Aves., and .37 mi. Jones Ave., from Kendall to Layer Sts., to Uvalde Rock Asphalt Co., San Antonio, $40,165 and $34,934, respectively; .86 mi. Ruiz St., from Laredo to Trinity Sts., .44 mi. McCullough Ave., from Cypress to Dewey Sts. and .54 mi. Brooklyn Ave., from Oakland to Cypress Sts., to Southwest Bitulithic Co., Gunter Bldg., $83,529, $43,568 and $40,177, respectively. Noted Sept. 23.

Tex., San Antonio—City received bids Sept. 27, grading, curbing, paving, etc., .41 mi. Cypress St., from Brooklyn to McCullough Aves., and Dallas St., from Romana St. to Brooklyn Ave., from Uvalde Rock Asphalt Co., San Antonio, $33,431; Southwest Bitulithic Co., Gunter Bldg., $36,188. Work involves 6,800 sq.yd. bituminous or rock asphalt and 4,050 lin.ft. concrete curbing. Noted Sept. 23.

New Mexico—State Highway Dept., Capitol Bldg., Santa Fe, let contract to Lee Moor Contg. Co., 302 Two Republics Bldg., El Paso, Tex., building 5.871 mi. road between Bernalillo and south line of Sandoval Co., Federal Aid Project 36, Sandoval Co., $39,862, 8 mi. road between Lordsburg and Steins, Federal Aid Project 44, Hidalgo Co., $44,509; to French & Harvey, Santa Fe, building 5.599 mi. road between east end of Project 19 and Dona Co. line, Federal Aid Project 45, Luna Co., $39,701, 11.572 mi. road between Valmont and Escondido, Federal Aid Project 49, Otero Co., $42,952. Noted Sept. 30.

★**Washington** — State Highway Comn., Olympia, let contract grading and graveling 1.61 mi. Inland Empire Highway from Richland to Kennewick, Benton Co., to Root & Joslin, Spokane, $29,517. Noted Sept. 23.

★**Wash., Seattle**—A. H. Dimock, engr., 424 35th St., let contract grading Bothell Way, et al., involving 7.5 acres clearing and grubbing, and 20,000 cu.yd. excav., to G. Rerick, Lyon Bldg., $24,370. Noted Oct. 21.

★**Cal., San Diego**—Bd. Supervs. San Diego Co. let contract grading 3-B Julian Rd., to Hard Bros., Ripon, $62,523.

Railways

PROPOSED WORK

Pennsylvania — Altoona Logan Valley Electric Ry. Co., 11th St. and 12th Ave., Altoona, plans to build 3 mi. new line from Plank Rd., Logan Twp., to Harrison Ave., East End, Altoona. About $40,000. F. Tingley, Altoona, engr.

Excavation and Dredging

PROPOSED WORK

Miss., Lexington — Drainage — Holmes-Yazoo-Humphreys D. D. retained Morgan Eng. Co., engrs., Goodwyn Institute, Memphis, Tenn., to make surveys for drainage and flood protection system for 120,000 acres, in Holmes, Yazoo and Humphreys Counties.

Ark., Eudora—Drainage—Comrs. Grand Lake D. D., Chicot Co. rejected bids Sept. 27, building drainage system. R. H. Mossecy. Noted Sept. 7.

Cal., Colusa—Canal System—Glenn-Colusa Irrigation Dist. voted $2,587,000 bonds to purchase, improve and extend canal system of Sacramento Valley West Side Canal Co.

BIDS DESIRED

Ill., Illiopolis—Drainage—Until Nov. 6 by Drainage Comrs. D. D. 1, of Illiopolis and Lanesville Towns, Sangamon Co., for trenching, laying 7,840 ft. 39-42-in. segment block pipe drain, 3,080 ft. 36 in. sewer pipe drain, 5,678 ft. 24-30 in. drain tile, etc. J. W. Dappert, engr.

Industrial Works

PROPOSED WORK

Mass., Boston—Amer. Can. Co., 120 Bway, New York City, plans to build brick and steel factory, rein.-con. flooring, concrete foundation. About $250,000. Private plans.

Conn., Jewett City—Fisk Rubber Co., Chicopee Falls, plans to build concrete, brick and steel factory, rein.-con. flooring, concrete foundation here. G. B. Allen, 52 Vanderbilt Ave., New York City, engr.

N. Y., Maybrook—Central New England R.R. plans to enlarge engine house and improve track facilities at freight yards. About $300,000. Private plans.

Pa., Phila.—Keystone Table Top Co., c/o L. B. Rothchild, archt. and engr., 1225 Sansom St., plans to build 2 story, 35 x 140 ft. brick factory, on Callowhill and 3d Sts.

Pa., Phila.—Philadelphia Dyeing & Finishing Co., Frankford and Van Dike Sts., having preliminary plans prepared by M. W. Easby, archt., Crozer Bldg., for concrete, brick and steel factory, on Torresdale St. About $50,000.

Pa., Pittsburgh — Pittsburgh Malleable Iron Co., 57th St. and Allegheny River, plans to construct 202 x 322 ft. foundry building. About $500,000. F. Chase, 645 North Michigan Ave., Chicago, archt.

Pa., Williamsport—W. R. Hoehn Silk Co., 331 Pine St., plans to build a 2 story, 45 x 135 ft. brick mill, on Laurel St. along old canal. About $100,000. Contract for excavation let to W. E. Springman, Williamsport, $25,000.

Md., Baltimore—Horn Ice Cream Co., 44 Aisquith St., plans to build concrete and steel plant, rein.-con. flooring, concrete foundation, on Low and Aisquith Sts. About $300,000. Architect not selected.

Md., Baltimore—S. W. Snitzer, 3454 Reisterston Rd., soon lets contract building a 3 story, 60 x 90 ft. garage at 1419-23 Maryland Ave. About $50,000.

La., New Orleans—Amer. Can Co., 120 Bway., New York City, plans to build rein.-con. and steel factory, rein.-con. flooring, concrete foundation. About $250,000. Private plans.

Ky., Harrodsburg—See "Waterworks."

O., Cleveland—J. Babin, 827 Superior Ave., having plans prepared by N. Petti, archt., Williamson Bldg., for 2 story, 60 x 100 ft., rein.-con., brick and steel garage and commercial building, rein.-con. flooring, brick and concrete foundation, on Superior Ave. and East 105th St. About $100,000.

O., Cleveland—Berg-Clark Electric Co., 10207 Euclid Ave., plans to build 2 story, brick and steel factory and warehouse, brick foundation, on St. Clair Ave. and East 14th St. About $50,000. Private plans.

O., Cleveland — Folding Box Co., 1900 West 3rd St., had plans prepared by H. M. Morse, archt. and engr., Citizens Bldg., for 1 story, 100 x 400 ft., brick and steel factory, brick foundation. About $150,000. F. B. Stevens, pres.

O., Cleveland—Orban & Hunt, c/o Geo. Orban, 9512 Cedar Ave., plan to build 2 story, 60 x 80 ft. brick and steel factory and warehouse, brick foundation. About $60,000. Carter-Richards-Griffith Co., Illuminating Bldg., archts. and engrs.

O., East Cleveland (Cleveland P. O.—City election Nov. 2 to vote on $90,000 bonds to build 1 story light plant, brick and steel, brick foundation. Private plans.

Industrial Works (Continued)

Ind., Ft. Wayne—Craig Biscuit Co., 115-121 Montgomery St., plans to build bakery, on West Main St. along bank St. Mary's River. About $150,000. Architect not selected.

Ind., Scottsburg—Interstate Pub. Serv. Co., 510 Bd. Trade, Indianapolis, having sketches made for shops and carbarns here. About $300,000. Private plans.

Mich., Kalamazoo — Kalamazoo Loose Leaf Binder Co., 314 West Kalamazoo St., opens bids about Nov. 10, building 4 story, 100 x 140 ft. addition to factory. N. H. Stuart, purch. agt.

Wis., Fond du Lac—Fond du Lac Paper Co., c/o M. Green, 298 Forest Ave., plans to build 1 and 2 story, 100 x 300 ft., brick, rein.-con. and steel factory, concrete foundation, along bank of Lake Winnebago. About $100,000. Architect not selected, probably local architect.

Wis., Fond du Lac—Klinzing Barn Equipment Co., c/o J. F. Greenback, 52 South Main St., plans to build 4 story, 60 x 150 ft., brick, rein.-con. and steel factory, brick foundation. About $100,000. Architect not selected.

Wis., Jackson — Meehan Mfg. Co., 709 M. & M. Bldg., Milwaukee, having preliminary plans prepared by A. E. Mitterhausen, archt., 51st St., Milwaukee, for 1 story, 80 x 100 ft., brick, rein.-con. and steel plant, concrete foundation, on Main St., here. Cost between $50,000 and $100,000.

Wis., Milwaukee — J. and S. Polacheck, 250 West Water St., having plans prepared by Lesser & Schutte, archts. and engrs., Trust Co. Bldg., for 5 story, 20 x 130 ft. mercantile and manufacturing building, rein.-con. and brick, rein.-con. flooring, concrete and pile foundation, on West Water St. About $60,000.

Wis., Schleisingerville—Storck Ice Cream Mfg. Co. plans to remodel and enlarge present unit, also build 3 story, 60 x 85 ft. addition, brick, rein.-con. and steel, brick foundation, on Main St. Architect not selected.

Wis., Schleisingerville—Judell & Bogner, archts., 445 Milwaukee St., Milwaukee, opens bids about Oct. 30, building 1 story, 60 x 150 ft., brick, rein.-con. and steel factory, brick foundation, on Main St., for Zwebell Bros. Co. About $100,000.

Wis., Sheboygan—United Fruit Package Mfg. Co., 701 North 8th St., plans to build 2 story, 60 x 150 ft., brick, rein.-con. and steel factory, brick foundation, near here. About $50,000. Architect not selected.

Wis., Tomahawk—Tomahawk Pulp & Paper Co. preparing plans for 50 x 354 ft. main building, 37 x 136 ft. engine room, 47 x 98 ft. boiler room and 50 x 231 ft. machine room. V. E. Labbe, secy. Private plans.

Wis., Two Rivers—Wisconsin Pail & Basket Co. plans to build 2 story, 150 x 185 ft. factory, brick, rein.-con. and steel, brick foundation, on Main St. About $200,000. Architect not selected.

Wis., West Bend—West Bend Aluminum Co. having plans prepared by Federal Eng. Co., engrs., Stephenson Bldg., Milwaukee, for 2 story boiler and power house, brick, rein.-con. and steel, brick foundation, on Main St. About $75,000.

Minn., Mankato—Carney Cement Co., West Mankato, having plans prepared by R. K. Meade, engr., 11 East Fayette St., Baltimore, Md., for cement plant, concrete, brick and steel, to include mill building, machine shop, blacksmith shop, chemists building, sack warehouse, garage concrete coal hoppers and 16 steel kilns, 60 ft. high, 18 ft. diameter. About $150,000.

Minn., Ottertail — Ottertail Creamery Assn. receives bids in spring building 2 story, 54 x 62 ft. creamery, brick. About $50,000. M. Buetow and C. W. Kampfer, 106 West Central Ave., St. Paul, archts.

Mo., North Kansas City—Hooven & Allison Co. rejected bids received Oct. 4 building 1 story, 80 x 363 ft. factory, on Arnour Rd. and Forest St. Work will be readvertised next spring. C. B. Haven, Xenia, O., engr. Noted Sept. 16.

Tex., Austin—Home Ice & Cold Storage Co., 3d St., plans to improve plant, construct new buildings, install machinery, etc. About $200,000. A. M. Fitzpatrick, pres.

Tex, Dallas—B. Ablon, Cadiz and Santa Fe Sts., had plans prepared and opens bids about Jan. 1 constructing ice and cold storage plant, to include one 4 story, 100 x 150 ft. concrete building and four 1 and 2 story, 40 x 100 ft. buildings. About $500,000.

Tex., Dallas—Gulf Refining Co., Hickory St. and Texas & New Orleans Ry., had plans prepared for 3 story distributing plant, concrete, to include machine shop, underground tanks, etc. About $100,000.

Tex., Dallas—Mack Mfg. Co. plans to build factory, brick. About $1,000,000.

Tex., Ft. Worth—T. Holiday, Longview, preparing plans for hardwood lumber mill, storage yards, etc., at 800 North Houston St., here. About $250,000. Private plans.

Que., Montreal—Canada Cement Co., Herald Bldg., Craig St. W., plans to build 10 story, concrete, brick, steel and stone factory, at Herald Sq. About $450,000. Ross & MacDonald, Belmont St., archts.

Que., Montreal—Mountain St. Garage Co., Ltd., soon receives bids building addition to garage. About $100,000.

Que., Montreal—Wisers Distillery, Ltd., soon receives bids building brick and steel plant, concrete foundation. About $100,000.

Que., St. Therese—Dominion Furniture Manufacturers, Ltd., plan to extend plant. About $125,000.

Que., Sherbrooke—Sherbrooke Record Co. soon receives bids building 3 story, 50 x 75 ft. brick and steel plant, concrete foundation.

Ont., London—Middlesex Milk Producers, R. R. 2, Wilton Grove, plan to build creamery here. J. C. Nichol, pres. About $250,000. Architect not selected.

Ont., Strathroy—Andrews Wire Co. plans to build addition to factory. About $60,000. Private plans.

Ont., Tillsonburg—Canadian Cereal Mills Co., Stratford, plans to rebuild flour mills here, which were recently destroyed by fire. About $500,000.

Alta., Edmonton—San Francisco & McMillan Oil Refining Co., Ltd., plans to build plant. About $500,000.

BIDS DESIRED

Me., Auburn—H. S. Coombs, archt., 11 Lisbon St., Lewiston, receiving bids building 1 story, 80 x 100 ft. concrete, brick and steel garage, rein.-con. flooring, concrete foundation, on Franklin St., for Darling Automobile Co., 15 Turner St. About $40,000.

N. Y., Long Island City—Until Nov. 1, by J. M. Baker, archt. and engr., 9 Jackson Ave., building 4 story, 90 x 100 ft., brick and steel factory, rein.-con. flooring, concrete foundation, on 1st Ave. near Freeman, for J. Weldon. About $125,000. Noted Aug. 26.

N. Y., Rochester—J. C. Ancona, archt., 305 Cutler Bldg., receiving bids building 1 story, 120 x 400 ft. brick and steel factory, for Rochester Castings Corp. Noted Sept. 30.

N. J., Metuchen—Until Dec. 1, by D. Wortman, archt. and engr., 116 Lexington Ave., New York City, building 1 and 2 story, rein.-con., brick and steel addition to factory, rein.-con. flooring, concrete foundation, here, for General Ceramics Co., 50 Church St., New York City. About $400,000.

Wis., Fond du Lac — Sheboygan Dairy Products Co., South Water St., Sheboygan, and B. E. Mehner, archt., 6 East Division St., receiving bids building 2 story, 60 x 113 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on West Division St. About $100,000. Noted Oct. 21.

Wis., Racine—New York Market Co., 2907 Washington Blvd., receiving bids building 2 story, 94 x 112 ft. sausage factory, brick and concrete, concrete foundation. Packers Eng. Co., 431 South Dearborn St., Chicago, engrs.

Wis., Sheboygan—South Side Garage Co., South 12th St. and Indiana Ave., receiving bids building brick, rein.-con. and steel garage, brick foundation on Indiana Ave. About $75,000. Private plans. Noted Sept. 9.

★**Ill., Chicago**—Marshall & Fox, archts., 721 North Michigan Ave., receiving bids building 3 story, 296 x 310 ft. power plant, brick, rein.-con., steel and stone, concrete foundation, on 100th St. and Commonwealth Ave., for Commercial Edison Co., 72 West Adams St. Cost, $5,000, including equipment. Sargent & Laundry, 72 West Adams St., electrical engrs.

Ill., Chicago—Berlin, Swern & Randall, archts., 19 South La Salle St., receiving bids building 3 story, 100 x 160 ft. printing plant, rein.-con. and brick, rein.-con. flooring, concrete foundation, on East Huron St. and Fairbanks Ct., for Stearns Bros. & Co., 619 South La Salle St. About $200,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Danvers**—Commonwealth of Massachusetts, 36 State House, Boston, let contract building 1 story, 57 x 137 ft., concrete, brick and steel power plant, rein.-con. flooring, concrete foundation, at State Hospital here, to E. H. Porter Co., 13 Wallis St., Peabody. About $250,000. Noted July 22.

★**Mass., Lynn**—Gen. Electric Co., 84 State St., let contract building 1 story, 160 x 300 ft. addition to plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, to J. T. Wilson & Son, Nahant. About $150,000. Noted Oct. 14.

★**Mass., Somerville** (Boston P. O.)—Amer. Tube Wks., 440 Somerville Ave., let contract building 1½ story addition to mill, concrete, brick and steel, rein.-con. flooring, concrete foundation, to Whidden-Beekman Co., 100 Boylston St., Boston. About $75,000.

★**Mass., West Medford** (Boston P. O.)—Amer. Woolen Co., 245 State St., Boston, let contract building rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on Boston Ave., to Turner Constr. Co., 178 Tremont St., Boston. About $250,000.

★**Mass., Wrentham**—Commonwealth of Massachusetts, State Schoolhouse Dept., Boston, let contract building 1 story, 50 x 70 ft. cold storage plant, concrete, brick and steel, rein.-con flooring, concrete foundation, at state school, here, to J. A. Munroe, Washington St. North Attleboro. About $50,000. Noted Sept. 30.

Conn., Hartford—Bd. Contract & Supply received bids building 2 story, 50 x 125 ft. concrete, brick and steel machine shop, rein.-con flooring, concrete foundation, on John St., from T. F. Garrity, 847 Main St., $71,229; A. Purves, 15 Wells St., $72,268; Johnson-Wester Co., 159 Washington St., $72,600. Noted Oct. 7.

★**Conn., Meriden**—I. Moskowitz, 3 Perkins St., let contract building 3 story, brick and steel warehouse, concrete foundation, to L. Suzio Constr. Co., State and Brook Sts. About $65,000. Noted June 24.

★**Conn., New Haven**—Connecticut Adamant Plaster Co., River St., let contract building 2 story, 120 x 160 ft., concrete and steel plant, to Sperry Engr. Co., 82 Church St. About $150,000. Noted Oct. 7.

★**N. Y., Brooklyn** — J. E. Berwind, 1 Bway., New York City, let contract building 2 story printing plant, concrete, brick and steel, rein.-con. flooring concrete foundation on Sands St., here, to J. W. Bishop Co., 109 Foster St., Worcester, Mass. About $50,000.

★**N. Y., Brooklyn** — Colonial Mantle & Refrigerating Co., 494 Dumont Ave., will build 1 story, 40 x 100 ft. addition to factory, brick and steel, rein.-con. flooring, concrete foundation. About $40,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Martha Garage Corp., 1687 President St., will build 1 story, 105 x 130 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Dean St. About $50,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Shapiro & Aronson, c/o H. J. Nurick, archt. and engr., 772 Bway., New York City, will build 1 story, 100 x 200 ft., rein.-con., brick and steel factory and warehouse, on Glenmore Ave. About $50,000. Work will be done by day labor. Noted Sept. 2.

★**N. Y., Buffalo**—Angola Tire & Rubber Co., 270 North Division St., let contract building 2 story, 50 x 96 x 126 ft., brick addition to factory, to J. A. Zoll, 398 Bird Ave. About $55,000.

★**N. Y., Buffalo** — Natl. Lamp Wks. of Genl. Electric Co., 1495 Fillmore Ave., let contract building 2 story, 82 x 322 ft. concrete, brick and steel factory, at 757 East Ferry St., to Huntley & Derdenger, Electric Bldg. About $120,000.

★**N. Y., Buffalo**—Standard Oil Co. of New York, Elk and Gorham Sts., let contract building 4 story, 105 x 115 ft. addition to factory, concrete and brick, to J. W. Cowper Co., Fidelity Bldg. About $1[illegible],000.

Industrial Works (Continued)

★**N. Y., Glendale** (Brooklyn P. O.)—Rubel Bros., Inc., Glenmore Ave., Brooklyn, will build 2 story, 35 x 125 ft. addition to plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $50,000. Work will be done by day labor.

N. Y., New York—G. A. Whalen, comr. Plant & Structures, Municipal Bldg., received bids Oct. 21, constructing housing station, on Henry, Madison and Birmingham Sts., for Dept. Street Cleaning, from Wolfman & Greenbaum, 1643 Pacific St., Brooklyn, $112,000; G. Cole Co., $126,999; M. F. Kelly, 33 Old Bway., $128,600. Noted Oct. 14.

★**N. Y., New York**—Dollar Contg. Co., 25 West 140th St., will build 1 story, 50 x 150 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 150th St. About $50,000. Work will be done by day labor.

★**N. J., Maurer**—Barber Asphalt Paving Co., 233 Bway., New York City, let contract building 2 story, concrete and brick plant, here, to Levering & Garrigues, 552 West 23rd St., New York City. Noted Oct. 21.

★**Pa., Chester**—Crystal Ice & Storage Co. let contract constructing 1 story, 40 x 80 ft., 60 ft. high, concrete and steel storage building, to W. G. Koelle & Co., 26th and Oxford Sts., Phila. About $50,000.

★**Pa., Hatboro**—Roberts & Mandor Stove Co., 11th and Washington Sts., Phila., let contract building 1 story, 60 x 100 ft. addition to foundry, brick and steel, here, to Austin Co., Bulletin Bldg., Phila.

★**Pa., Phila.** — Baeder & Adamson Co., Richmond and Allegheny Sts., will alter and build addition to 1 story, 50 x 120 ft. and 75 x 95 ft. glue factory, brick and steel. About $56,000. Work will be done by day labor.

★**Pa., Pittsburgh** — Pittsburgh Gage & Supply Co., 30th and Liberty Sts., let contract constructing 1½ story, 140 x 140 ft. storage building, brick and steel, brick and concrete foundation, to Austin Co., Union Arcade. Cost between $175,000 and $200,000.

★**D. C., Wash.**—Amer. Ice Co., c/o Knickerbocker Ice Co., 1480 Bway., New York City, let contract building 85 x 113 ft. brick and steel warehouse, 70 ft. high, to W. P. Libscombe Co., Dist. Natl. Bank Bldg. About $150,000.

★**N. C., Greensboro** — Armour Fertilizer Co. let contract building 1 story, 80 x 180 ft. concrete, brick and steel fertilizer plant and storage building, to Austin Co., Bulletin Bldg., Phila. About $150,000.

★**La., Shreveport**—United States Window Glass Co., Morgantown, W. Va., will build brick, concrete and steel factory, here. About $500,000. Work will be done by day labor.

★**O., Cleveland**—Cyclone Fence Co., East 55th St., let contract building 1 story, 60 x 80 ft., brick and steel addition to factory, brick foundation, to H. K. Ferguson Co., 6523 Euclid Ave. About $40,000.

★**O., Dayton**—Computing Scale Co., Huffman Ave., let contract building 5 story, rein.-con. and brick factory, rein.-con. flooring, on East Huffman Ave., to F. H. Smith, Reibold Bldg. About $150,000.

★**O., Warren**—Metallic Bedstead Co. let contract building 1 story, 90 x 440 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, brick and concrete foundation, to Boldt Constr. Co., 6110 Euclid Ave., Cleveland. About $150,000.

★**Ill., Chicago**—R. C. Ostergren, archt., 155 North Clark St., let contract to C. B. Johnson & Son, 111 West Washington St., building 1 story, 150 x 270 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on Washtenaw and Belmont Aves., for Alemite Die Casting & Mfg. Co., 341 West Chicago Ave. About $150,000. Noted March 18.

★**Ill., Chicago**—Illinois Glass Co., 402 West Randolph St., let contract building 1 and 2 story, 215 x 270 ft., brick and mill construction factory, concrete foundation, at 2601 North Crawford Ave., to Dahl-Stedman Co., 11 South La Salle St. Noted Dec. 26.

★**Ill., Decatur**—L. P. Holladay Co. let contract building 1 story, 80 x 400 ft., concrete and steel plant, to L. S. Baker & Bros., Decatur. About $75,000.

LOCKS—CHICAGO, ILL.

Bids were received by Dept. of Pub. Wks. & Bldgs., 37 East Jackson Blvd., Oct. 1[illegible] for constructing Marseilles Lock in Illinois River, from (A) Green & Sons Co., McCormick Bldg.; (B) Bates & Rogers, 37 West Van Buren St.; (C) Oscar Dan[illegible] Co., 38 South Dearborn St. The unit bids were as follows:

		A	B	C
Clearing (lump sum)		$10,000.00	$7,650.00	$12,000.[illegible]
Cofferdam, etc. (lump sum)		50,000.00	62,000.00	12,000.[illegible]
263,000 cu.yd.	excavation	2.00	2.00	2.[illegible]
10,000 sq.ft.	channeling	1.00	1.00	0.[illegible]
2,400 sq.yd.	embankment	3.50	1.20	1.[illegible]
1,400 sq.yd.	stone paving	3.50	3.25	3.[illegible]
50 m. ft.	pine and fir timber	100.00	135.00	80.[illegible]
23 m. ft.	white oak timber	250.00	185.00	400.[illegible]
126,000 lbs.	structural steel	0.20	0.18	0.14
51,000 lbs.	steel castings	0.40	0.28	0.3[illegible]
14,600 lbs.	grey iron castings	0.30	0.27	0.13
500 cu.yd.	No. 1 concrete	12.50	18.75	12.5[illegible]
62,600 cu.yd.	No. 2 concrete	10.80	13.60	13.00
500 cu.yd.	No. 3 concrete	10.30	13.25	16.00
89,000 lbs.	metal reinforcement	0.12	0.09	0.07
1,000 bbls.	Portland cement	2.75	3.25	2.50
500 ft.	wood fence	1.00	1.00	0.70
2,500 ft.	wire fence	1.00	1.35	0.60
1,900 ft.	6 in. vitrified pipe	1.00	1.00	0.70
900 lbs.	pipe railing	0.50	0.80	0.70
1,000 ft.	3 in. fibre conduit	1.00	0.40	0.45
1 ft.	vaine plate	500.00	300.00	400.00
2 acres	seeding	250.00	90.00	100.00
Extended totals		$1,373,115	$1,547,152	$1,610,588

★**Ill., Mt. Vernon** — Davidson Flour Co., St. Louis, Mo., let contract constructing 4 story, 80 x 150 ft., rein.-con. and brick plant, rein.-con. flooring, concrete foundation, here, to T. Stark & Co., 1103 1st Ave. W., Cedar Rapids, Ia. About $150,000.

★**Wis., Camp Douglas**—H. C. Hengals, state military archt., 425 East Walter St., Milwaukee, let contract to Immel Constr. Co., North Main St., Fond du Lac, building 1 story, 44 x 208 ft., brick and concrete, warehouse, concrete flooring and foundation, for Wisconsin Natl. Guard. Cost $49,527. Noted Sept. 30.

★**Wis., Fond du Lac**—Wisconsin Milk Co. will build 2 story, 60 x 113 ft. dairy plant, rein.-con. About $60,000. Work will be done by day labor.

★**Wis., Kauwauna**—Moloch Co. let contract constructing foundry and machine shop, each 1 story, 80 x 200 ft., concrete, to Hansen Co., 113 West Walnut St., Green Bay. About $100,000.

★**Wis., Kenosha**—Wisconsin Oxygen & Hydrogen Co., c/o White, White, White & Co., archts. and engrs., Kenosha, will build 1 story, 45 x 167 ft., brick and mill construction factory, concrete foundation. Work will be done by day labor.

★**Wis., Plymouth**—Plymouth Fdry & Machine Co. let general contract building 1 story, 150 x 162 ft., brick, rein.-con. and steel foundry and machine shop, rein.-con. flooring, concrete foundation, on Stafford St., to W. Runge, Main St. About $100,000.

★**Wis., Shawano**—Shawano Motor Car Co. let general contract building 2 story, 72 x 150 ft., brick, rein.-con. and steel garage, rein.-con. flooring, concrete foundation, on Main St., to F. Schoenrock & Sons, Main St., New London. About $100,000.

★**Wis., Sheboygan**—Vollrath Co., 13th St. and Michigan Ave., let contract building 1 story, 180 x 200 ft., brick, rein.-con. and steel shop, rein.-con. flooring, brick foundation, on Michigan Ave., to D. P. Robinson Co., 61 Bway, New York City. About $100,000.

★**Mo., St. Louis**—St. Louis Screw Co., Clarence and Bulwer Sts., will build 1 story, 160 x 160 ft., brick and steel factory, at 6912 North Bway. Work will be done by day labor.

★**Ont., Elmira**—Elmira Creamery Co. let contract building 2 story, 80 x 92 ft. concrete addition to creamery, to C. Wilken, Elmira. About $100,000.

Buildings

PROPOSED WORK

Me., Portland—Parish House—Methodist Church plans to build 2 story, brick and steel, on Chestnut St. About $75,000. A. C. Goddard, pastor. Architect not selected.

N. H., Manchester—Auditorium—A. K. Johnson, 1387 Beacon St., Brookline, plans to build 1 story, 80 x 100 ft. concrete, brick and steel, concrete foundation, on Hanover St., here. About $100,000. J. D. Leland, 185 Devonshire St., Boston, archt.

N. H., Manchester—School—Bd. Educ. plans to build 2 story, brick, on Michigan Ave., Youngsville Dist. C. R. Whitcher, 814 Elm St., archt.

Mass., Dedham—Club—Dedham Country and Polo Club rejected bids building 3 story, 40 x 95 ft., brick and frame on Westfield St. About $100,000. Project postponed until spring. G. Lowell, 12 West St., Boston, archt. Noted Sept. 16.

Mass., Holyoke—Clubhouse—Y. M. H. A. plans to build brick and steel. About $100,000. B. S. Evarts, pres. Architect not selected.

Mass., Huntington—Store and Hotel—Diamond & Regas, Main St., plans to build 3 story, brick and steel. Architect not selected.

Mass., Hyde Park (Boston P. O.)—Municipal—Pub. Bldgs. Dept., Boston, having plans prepared by Desmond & Lord, archts., 15 Beacon St., Boston, for 3 story, 75 x 165 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Everett Sq. About $350,000.

Mass., Leominster — Theatre — Leominster Theatre, Inc., plans to build 1 story, 70 x 155 ft. brick and steel, on Maple St. About $125,000. Funk & Wilcox, 1148 Old South Bldg., Boston, archts.

Conn., Hartford — Athenaeum — Wadsworth Athenaeum, 624 Main St., plans to build addition. About $300,000. Architect not selected.

Conn., Hartford—Auditorium—Bushnell Memorial Assn., 108 Gillett St., plans to build 1 and 2 story, brick, steel, concrete and stone, on Trinity St. and Capitol Ave. About $500,000. Architect not announced.

Conn., Hartford—Office—Amer. Sumatra Tobacco Co., Burnside Ave., plans to build 6 story, concrete, brick and steel, on Commerce, Grove and Mechanic Sts. About $500,000. Architect not selected.

Conn., Hartford—Office—Orient Insurance Co., 20 Trinity St., plans to build 6 story, brick, steel and concrete, on Clinton St. About $300,000. Architect not selected.

Conn., New Haven—Hotel—J. D. Kauffman Co., 42 Church St., plans to build 7 story, brick and concrete. About $300,000. J. Weinstein, 6 Church St., archt.

Conn., Storrs (Eagleville P. O.)—Dormitory—Connecticut Agricultural College had plans prepared and soon receives bids building 3 story, 53 x 110 x 186 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on campus. About $335,000. D. K. Perry, 27 West Main St., New Britain, archts. Noted Sept. 30.

N. Y., Buffalo — Institution — Canisius College, Main and Jefferson Sts., receives bids latter part of December, building first unit of addition to institution. About $1,000,000. M. J. Ahern, pres. Noted June 3.

N. Y., New York—Hospital and Nurses Home—French Hospital, 450 West 34th St., plans to build 7 story, 100 x 100 ft., brick.

Buildings (Continued)

steel and stone addition, brick foundation, at 441 West 33d St. C. H. Gilbert, 1 Madison Ave., archt. and engr.

N. Y., New York—Office—B. S. Johnson, c/o Maynicke & Franke, archts. and engrs., 25 East 26th St., having plans prepared for additional story to brick and stone, on 21st St. and Bway. About $80,000.

N. Y., New York—Office and Store—J. M. Gidding & Co., 5th Ave. and 46th St., plans to build 12 story, brick, steel and stone, concrete foundation, on 5th Ave. between 56th and 57th Sts. Severence & Van Allen, 111 East 40th St., archts. and engrs.

N. Y., New York—Theatre—T. W. Lamb, archt., 644 8th Ave., soon lets contract altering brick and stone, at 22 West 63d St., for F. H. Whitney, 501 5th Ave. About $75,000.

N. Y., Poughkeepsie — Store — Luckey Platt & Co., 332 Main St., receives bids in spring building 6 story, 50 x 150 ft., concrete and brick. E. C. Smith, 39 Market St., archt.

N. Y., Yonkers—High School—Bd. Educ., High School Bldg., plans to build brick and stone, brick foundation. About $300,000. J. H. Claxton, secy. Architect not selected.

N. J., Camden—Y. M. C. A., 566 Federal St., plans to build new home. About $135,000. W. W. Frey, pres. Architect not selected.

N. J., Gibbstown — School — Bd. Educ. plans to build brick and steel. About $125,000. H. A. Hill, Broad St. Bank, Trenton, archt.

N. J., Millville—School—Bd. Educ. plans to build 2 story, 20 room, school and auditorium. A. H. Moses, 8 Springfield Ave., Merchantville, archt.

N. J., Shiloh—School—Bd. Educ. plans to build school. About $80,000. H. A. Hill, Broad St. Bank, Trenton, archt.

Pa., Chambersburg—School—School Bd. rejected bids Oct. 21, building 1 story, 10 room, brick, concrete foundation. Plans will be revised and work readvertised. H. G. Kilmer, 402 Trust Bldg., archt. Noted Oct. 7.

Pa., Harrisburg — Hotel — Penn Harris Hotel, 3d and Walnut Sts., plans to build 12 story, 50 x 200 ft. addition, brick, steel and stone, concrete foundation. W. L. Stoddart, 9 East 40th St., New York City, archt and engr.

Pa., Lock Haven — Temple — Masonic Temple Assn., c/o Stearns & Woodnut, archts., St. Girard Bldg., Phila., having plans prepared for 4 story, 60 x 130 ft., brick and stone. Cost to exceed $100,000.

Pa., Unionville—School—Consolidated Bd. Educ., East and West Marlboro, Newlin and Pocopsin, having preliminary plans prepared by Ritter & Shay, archts. and engrs., North Amer. Bldg., Phila., for 2 story vocatonal school, brick. Cost to exceed $100,000.

Pa., Williamsport—Hotel—F. E. Plankenhorn, 4th St. and Government Pl., plans to alter and build addition (increasing space from 32 to 100 rooms), to Sterling Hotel. About $100,000.

Md., Baltimore—Hospital—Church Home and Infirmary, Bway. and Fairmont Ave., plans to build 6 story addition, concrete and brick, concrete foundation. About $600,000. Wyatt & Nolting, 1012 Keyser Bldg., archts.

Md., Hamilton (Baltimore P. O.)—Church — Protestant-Episcopal Church of Messiah having plans prepared by Mottu & White, archts., 324 North Charles St., Baltimore, for 1 and 2 story, 52 x 122 ft. church, and 2 story, 48 x 114 ft. parish hall, concrete and brick, stone and concrete foundation, on Harford Rd. and White Ave. About $150,000. R. Wroth, 215 East Preston St., Baltimore, pastor.

D. C., Wash.—Schools—Dist. Comrs. had plans prepared by S. Ashford, archt., 1412 21st St., for two 2 story, 8 room brick and stone schools, one in Takoma Park, cost $200,000; other in Burrville, $190,000.

W. Va., Bluefield—College—Baptist Educational Comn., plans to construct 18 buildings on 60 acre site. About $750,000. Architect not selected.

N. C., Asheville — Hotel — E. W. Grove plans to build commercial hotel on Haywood St. About $500,000.

Ga., Newnan — **Hospital** — **Newman** Coweta County Hospital soon receives bids building rein.-con. and brick, rein.-con. flooring, concrete foundation. About $100,000. H. C. Arnall, pres.

Ala., Auburn—College—Alabama Polytechnic Institute plans to build 3 story agricultural college to replace one destroyed by fire. About $100,000.

O., Akron — Hospital — Bd. Hospital Trustees, Summit Co., purchased 83 acre site and plans to build hospital. About $1,000,000. E. C. Shaw, chn.

O., Akron—Theatre and Commercial—Swirsky & Miller, archts., Herberich Bldg., preparing plans for 5 story, on Buchtel and Main Sts. About $500,000. Owner's name withheld.

O., Armstrongs Mills—School—Bd. Educ., Washington Twp., having plans prepared by F. S. Rusk, archt., 16 South 3rd St., Columbus, for 2 story, 6 room, fireproof. About $80,000. M. Perkins, pres.

O., Bellaire—School—Bd. Educ., Key Ridge Dist., Meade Twp., having plans prepared by F. S. Rusk, archt., 16 South 3rd St., Columbus, for 2 story, 6 room, 62 x 100 ft., fireproof. About $100,000. W. G. Simpson, Farmers & Merchants Bank Bldg., pres.

O., Cleveland—Bank and Commercial—Cleveland Trust Co., c/o A. McCaslin, East 9th St. and Euclid Ave., plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Fulton Rd. and Poe Ave. About $100,000. Architect and engineer not selected.

O., Cleveland—Church—Euclid Ave. Baptist Church, Euclid Ave. and East 18th St., plans to build 1 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $300,000. Architect not selected.

O., Cleveland—Commercial—See "Industrial Works."

O., Cleveland—Commercial—Prane Realty Co., c/o J. H. Dickman, 214 Williamson Bldg., purchased site and plans to build brick and steel, brick foundation, at 742 Hamilton Ave. About $200,000. Architect not selected.

O., Cleveland — Commercial — Princeton Realty & Investment Co., c/o A. W. Henry, Cuyahoga Bldg., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 3640 Prospect Ave. About $150,000. Architect not selected.

O., Cleveland — Commercial — Western Realty Co., c/o H. D. Koblitz, The Arcade, purchased site and plans to build rein.-con., brick and steel, rein.-con. flooring, concrete and brick foundation, at 1102 Superior Ave. About $100,000. Architect not selected.

O., Cleveland—Commercial and Offices—M. Marmerstein, Williamson Bldg., having plans prepared by W. S. Ferguson, archt., 1900 Euclid Ave., for 6 story, 75 x 160 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 3812 Euclid Ave. About $200,000.

O., Cleveland—Market and Commercial—Woodland Ave. Market Co., 5808 Woodland Ave., plans to build 1 and 2 story, 65 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 7500 Woodland Ave. About $100,000. M. Auldschuld, 5116 Woodland Ave., archt.

O., Kent—High School—Bd. Educ. having plans prepared by Mills & Millspaugh, archts., 67 East Long St., Columbus, for 2 story, 160 x 200 ft., brick and concrete, to include chemical laboratory. About $275,000 H. W. Bowers, clk.

O., Smithville—School—Bd. Educ., Court House, Wooster, having plans prepared by O. D. Howard, archt., 8 East Broad St., Columbus, for 2 story, brick and concrete, here. About $75,000.

O., Syracuse—Church—Methodist Episcopal Congregation having plans prepared by R. Sims, archt., Grand Theatre Bldg., Columbus, for 52 x 75 ft. brick and stone. About $75,000. H. K. Sayre, pastor.

O., West Park—Schools—Bd. Educ. plans to build two 3 story grade schools, cost $1,000,000, also one 3 story high school, $1,000,000, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. F. W. Featherstone, clk. Architect not selected.

O., Willshire—School—Bd. Educ. having plans prepared by O. D. Howard, archt., 8 East Broad St., Columbus, for 2 story, brick and concrete. About $125,000. W. Schumm, clk.

O., Youngstown—Theatre—Miles Theatre Corp., East 9th and Prospect Sts., Cleveland, plans to build 3 story, 300 x 400 ft., on Federal St. About $1,500,000.

Ind., Decatur—Sales—F. Reppert having plans prepared by O. Hoffman, archt., Decatur, for 2 story, 100 x 150 ft., brick and stone. About $100,000.

Ind., Indianapolis — Lodge — Prather Lodge, F. & A. M., Northwestern State Bank Bldg., plans to build lodge on 42nd St. About $75,000. Architect not selected.

Ind., South Bend—Hotel—Tavern Hotel Co. having plans prepared by R. F. France, archt., 155 North Clark St., Chicago, for

HIGHWAY—OREGON

Bids were received by State Highway Comn., Portland, for constructing Oregon City-Multnomah Co. line section of Pacific Highway, Clackamas Co., from (A) Scandia Shipbuilding Co., Marshfield, (awarded contract); (B) Cummins & La Pointe, McMinnville; (C) United Contg. Co., North Western Bank Bldg., Portland. The unit bids were as follows:

	A	B	C
6,500 cu.yd. common excavation	$1.08	$1.20	$1.25
1,500 cu.yd. solid rock excavation	1.65	3.00	3.50
5,000 cu.yd. st. overhaul	.06	.10	.05
60,500 sq.yd. type "A" pavement	3.03	3.17	3.35
18,000 lin.ft. expansion joints	.17	.16	.10
157,000 lb. bar reinforcement in place	.06	.10	.10
8,000 sq.yd. placing concrete in two strips	.30	.20	.10
1,550 cu.yd. new broken stone, loose meas.	3.95	5.00	3.95
300 cu.yd. reclaimed rock and gravel	1.20	5.00	.95
60,000 lin.ft. shoulder construction	.08½	.06	.06
250 cu.yd. shoulder drains	4.56	6.00	4.35
Extended totals	$220,713	$239,115	$245,695

Bids were received by State Highway Dept., Portland, (lowest 3) for constructing Lowen-Crane section of Central Oregon Highway, Harney Co., from (A) Porter & Conley, Ry. Exch. Bldg., Portland, (awarded contract); (B) Security Constr. Co., La Grande; (C) Morrison-Knudsen Co., Boise, Idaho.

	A	B	C M
Clearing and grubbing (60 RW) (lump sum)	$3,200.00	$2,000.00	$1,000.00
79,000 cu.yd. common excavation	.50	.56	.50
1,000 cu.yd. st. overhaul	.15	.05	.10
1,300 lin.ft. 12-in. plain concrete pipe	1.50	1.50	
140 lin.ft. 18-in. reinforced concrete pipe	3.20	2.60	
124 lin.ft. 24-in. reinforced concrete pipe	4.25	3.75	
1,300 lin.ft. 12-in. corrugated galvanized iron pipe	2.35	2.80	2.50
140 lin.ft. 18-in. corrugated galvanized iron pipe	3.70	4.25	3.50
124 lin.ft. 24-in. corrugated galvanized iron pipe	4.85	5.32	4.50
6 cu.yd. class "B" concrete	40.00	25.00	20.00
60 cu.yd. class "C" concrete	40.00	25.00	38.00
12 M.ft.b.m. lumber and timber in place	100.00	70.00	120.00
23,000 cu.yd. broken stone surfacing	4.25	4.28	5.25
Extended totals reinforced concrete pipe	$147,365	$149,999	
Extended totals corrugated galvanized iron pipe	148,614	152,112	169,608

Buildings (Continued)

10 story, 85 x 165 ft., rein.-con., concrete foundation. About $750,000. Noted June 10.

Mich., Detroit—Mercantile—Frank & Sedar, c/o Smith, Hinchman & Grylls, archts., 710 Washington Arcade, having revised plans prepared for 8 story, 60 x 100 ft, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Woodward Ave. Noted Oct. 14.

Ill., Chicago—Post Office Terminal—Union Station Co. having preliminary plans prepared by Graham, Anderson, Probst & White, archts., Ry. Exch. Bldg., for 6 story, 80 x 800 ft., between Harrison and Van Buren Sts., west of river. About $5,000,000. Building will be leased to Federal Government.

Ill., Chicago—Temple and Community House—Isaiah Temple, 4714 Grand Blvd., plans to build temple and community house, on 51st St. and Greenwood Ave. About $500,000. Architect not selected.

Ill., Oak Park—Hospital—West Suburban Hospital, c/o Holmes & Flinn, archts., 8 South Dearborn St., had plans prepared for 6 story, 35 x 90 ft., rein.-con. and brick addition, rein.-con. flooring, concrete foundation. About $100,000.

Wis., De Pere — Church — Episcopal Church, c/o R. Weller, bishop, Fond du Lac, having preliminary plans prepared by R. A. Crain, archt., Boston, Mass., for 2 story, 60 x 150 ft., brick, rein.-con. and steel, concrete foundation on Main St., here. About $100,000.

Wis., Eagle River—School—School Dist. plans to build concrete and brick high school, concrete foundation. About $150,000. Architect and engineer not selected.

Wis., Kenosha—Theatre and Commercial—C. Mantkus, 216 Sheridan Rd., having preliminary plans prepared by C. Augustine, archt. and engr., Kenosha, for 2 story, 140 x 150 ft., concrete, brick and steel, concrete flooring and foundation. About $400,000.

Wis., Marshfield — Church — Methodist Church, 205 East 3rd St., having plans prepared by W. L. Alban, archt., Endicott Bldg., St. Paul, Minn., for 80 x 80 ft., brick and steel, concrete foundation. Cost between $75,000 and $100,000.

Wis., Mayville—High School—Free High School Dist. plans to build 60 x 280 ft., brick, rein.-con. and steel, concrete foundation. About $200,000. Architect not selected.

Wis., Milwaukee—Mercantile, etc.—See "Industrial Works."

Wis., Milwaukee—Recreation—Nazareth Lutheran Church, 851 25th St., having preliminary plans prepared by E. Weyland, archt. and engr., Caswell Blk., for 2 story, concrete and brick, rein.-con. flooring, concrete foundation, on 25th St. About $75,000.

Wis., Milwaukee — Theatre — Newman Theatre Co., 1118 Main St., Kansas City, Mo., plans to build addition to Butterfly Theatre, here, brick, rein.-con. and steel, concrete foundation. About $100,000. Architect not selected.

Wis., Milwaukee—Theatre—Saxe Amusement Co., 160 5th St., having plans prepared by M. Tullgren & Sons, archts., 425 East Water St., for 1 story, 75 x 150 ft. concrete and brick, rein.-con. flooring, concrete foundation, on 3d St. and North Ave. About $150,000.

Wis., Oconomowoc — Armory — Second Separate Rifle Co. having plans prepared by H. C. Hengels, state military archt. and engr., 425 East Water St., Milwaukee, for 1 and 2 story, 70 x 120 ft., brick, concrete and steel, concrete foundation. About $75,000.

Wis., Sheboygan — School — Evangelical Lutheran St. Paul Church, c/o W. Freitag, chn. building comn., 1528 Blocki Ct., plans to construct 2 story, 70 x 85 ft., rein.-con. and steel, brick foundation. About $100,000. Architect not selected.

Wis., Shorewood (Milwaukee P. O.)—Armory—Wisconsin Natl. Guard, c/o H. C. Hengels, archt. and engr., 425 East Water St., Milwaukee, having preliminary plans prepared for two 2 story, 40 x 75 ft. additions to armory, concrete and brick, concrete foundations. About $70,000.

Wis., Stevens Point—Office—Wisconsin Retail Hardware Dealers' Mutual Fire Insurance Co., Strongs Ave., having plans prepared by Childs & Smith, archts., 64 East Van Buren St., Chicago, 2 story, rein.-con. and brick. About $100,000.

Wis., Stevens Point—High School—Bd. Educ. plans to build 1st unit of high school. About 150,000. Architect and engineer not selected.

Minn., Aitkin—Court House—Aitkin Co. having plans prepared by Toltz, King & Day, archts., 1410 Pioneer Bldg., St. Paul, for rein.-con. and brick. About $400,000.

Minn., Minneapolis — Administration — State Bd. Control, St. Paul, receives bids about Nov. 5, building 4 story, rein.-con., brick and stone, here. About $500,000. C. L. Pillsbury Co., 805 Metropolitan Life Bldg., engrs. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt. Noted July 22.

Minn., Minneapolis—Home—James Ballantyne Post, Amer. Legion, c/o L. P. Burlinham, 219 South 4th St., plans to build home on Lake St. and Nicollet Ave. About $80,000. Architect not selected.

Minn., Minneapolis—Theatre—Kirchhoff & Rose, archts. and engrs., Majestic Bldg., Milwaukee, Wis., opens bids about Nov. 1, building 2 and 3 story, 115 x 180 ft. rein.-con., brick and steel, concrete foundation, on Hennepin Ave., here, for M. Beck, 1564 Bway., New York. About $500,000.

Minn., Renville—High School—B. R. Holmberg, clk. Bd. Educ., receives bids about Dec. 1, building 2 story, 90 x 240 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $300,000. Croft & Boerner, Lonsdale Bldg., Duluth Bldg., Duluth, archts. and engrs.

Kan., Ellsworth — Hospital — Ellsworth Hospital Co. plans to build 3 story, 38 x 94 ft. rein.-con., brick foundation C. W. Shaver, Salina, engr. and archt.

Kan., Oswego—High School—Bd. Educ. having plans prepared and soon receives bids building 2 story, brick, rein.-con. and stone, rein.-con. flooring. About $150,000. T. W. Williamson, 418 Central Natl. Bank Bldg., Topeka, archt.

Kan., Pittsburg—Memorial—City plans election in spring to vote on $250,000 bonds to construct memorial building.

Kan., Pratt—Temple—Mason Bldg. Assn. plans to build rein.-con., brick and steel, rein.-con. flooring. About $100,000. Architect to be selected soon.

Kan., Rosedale—Hospital—J. A. Kimball, Topeka, having plans prepared and soon receives bids building 3 story, 46 x 164 ft., terra cotta or stone and rein.-con., rein.-con. flooring here. About $200,000. R. L. Gamble, 1415 Fillmore St., Topeka, archt.

Kan., Stockton—Court House—Roks Co. plans election in November to vote on $250,000 bonds to build 3 story, 80 x 100 ft., concrete, brick and steel, rein.-con. flooring, stone foundation. F. C. Squires, 630 Kansas Ave., Topeka, archt.

Kan., White City — High School — Bd. Educ. having plans prepared by J. H. Felt, archt., Kansas City, Mo., for 2 story, concrete, brick and steel. Bonds for $75,000 voted for project. H. Randles, clk.

Kan., Wichita—Standing Grain Thresher Co., Union Nat. Bank Bldg., plans to build thresher factory. About $250,000. A. J. Windlate, Nickerson, pres. Engineer and architect not selected.

Neb., Gering—Schools—Bd. Educ. soon receives bids building two 2 story, rein.-con., brick and steel, rein.-con. flooring. Total cost, $120,000. Pederson & Baker, Gering, archts. Noted Aug. 26.

Neb., Nebraska City—Community Hall—City voted $100,000 bonds to build soldiers memorial. Noted Aug. 26.

S. D., Harrold—High School—City voted $75,000 bonds to build high school.

Mo., Kansas City—Temple—Congregation B'Nai Jedudah, Linwood and Flora Sts., soon lets contract building 2 story, 88 x 109 ft. rein.-con., brick and steel annex, brick and concrete foundation. About $150,000. Greenbaum, Hardy & Schumacher, Kansas City, archts.

Mo., St. Louis—Office—J. F. Queeny, pres. Monsanto Chemical Wks., plans to remodel Old Southern Hotel, 6 story, 150 x 300 ft., fireproof, on Bway. and Walnut St. About $500,000. Address C. B. Ricketts (owner's agent), Ry. Exch. Bldg. Architect not selected.

Ark., Little Rock—Bank—Union & Mercantile Trust Co., 201 West 2nd St., receives bids in winter, building 50 x 140 ft., stone and marble, on 4th and Main. About $300,000. Thompson & Harding, South Trust Bldg., and Mann & Stern, A. O. U. W. Bldg., archts.

Tex., Dallas—Office—T. J. Britton, Elm St., plans to build 10 or 12 story, x 160 ft., on Live Oak and Ervay. About $500,000. Architect not selected.

Tex., Houston — Bank — Federal Reserve Bank, Commerce and Martin Sts., Dallas, opens bids about Jan. 1, building 4 story, 100 x 100 ft. branch, on Caroline and Texas Sts., here. About $500,000. W. F. Ramsey, Dallas, agt.

Tex., Ranger—High School—City voted $250,000 bonds to build new high school.

Tex., Wichita Falls—Hospital—City voted $75,000 bonds to build hospital.

Okla., Oklahoma City—Theatre—S. A. Lynch plans to build 2 story, 50 x 140 ft. concrete, brick and steel, rein.-con. flooring, on West Main St. About $100,000.

Okla., Okmulgee—Library—City soon receives bids building 1 story, 45 x 100 ft., rein.-con., brick, steel and stone, rein.-con. flooring. About $150,000. Address A. D. Kennedy, Okmulgee. Smith, Rea & Lovitt, 602 Finance Bldg., Kansas City, Mo., archts. Noted Oct. 7.

Col., Johnston—High School—Bd. Educ. had plans prepared by Montjoy, French & Frewen, archts., Chamber Commerce Bldg., Denver, building 2 story, 130 x 150 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation. About $100,000.

Wash., Seattle—Auditorium—B. P. O. E. No. 92 plans to build 1 and 3 story, 111 x 180 ft., on 4th and Madison Sts. About $175,000. Architect not selected.

BIDS DESIRED

R. I., Providence—School—Until Nov. 1, by Pub. Bldg. Dept., constructing 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Jastram Ave. Private plans. Noted Oct. 14.

N. Y., Albany—Bank—Fuller & Robinson, archts., 95 State St., receiving bids altering 2 story, 68 x 78 ft., on Lark St. and Washington Ave., for Natl. Commercial Bank & Trust Co. About $200,000.

N. Y., Buffalo—Hotel—Until Nov. 22, by G. B. Post, archt. and engr., 101 Park Ave., New York City, building 17 story, 84 x 130 x 279 x 292 x 348 ft., brick, steel and limestone, concrete foundation, on Delaware Ave., Niagara Sq., Franklin and Mohawk Sts., for Hotel Statler Co., Washington St. About $5,500,000. Noted May 20.

Md., Baltimore—Office—Until Nov. 15, by C. N. Fritz, archt., 2010 Lexington Bldg., constructing 10 story, 90 x 140 ft., steel, brick and stone, concrete foundation, on Courtland and Franklin Sts., for Standard Oil Co., Pratt and South Sts. About $850,000. Noted Aug. 26.

O., Bedford—High School—Until Nov. 13, by Bd. Educ., building 2 story, 135 x 185 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $250,000. H. P. Hamilton, 1127 Guardian Bldg., Cleveland, archt.

Ind., Indianapolis—Church—St. Joan of Arc Church receiving bids building 2 story, 60 x 108 ft., rein.-con., brick and steel, at 500 East 42nd St. About $100,000. D. A. Bohlen & Son, Majestic Bldg., archts.

Ind., Indianapolis—School—Bd. School Comrs. receiving bids building 2 story, 75 x 75 ft., rein.-con., brick, steel and terra cotta, rein.-con. flooring, on 30th St. About $100,000. M. Harrison, 500 Bd. Trade Bldg., archt. Snider & Rotz, 703 Merchants Bank Bldg., engr.

Mich., Detroit—Hospital—Until Nov. 1, by A. Kahn, archt., Marquette Bldg., constructing 6 story, 115 x 154 ft., rein.-con., brick and stone addition, rein.-con. flooring, concrete foundation, on John R. St., for Harper Hospital. About $350,000.

Mich., Detroit—School—Until Nov. 9, by Bd. Educ., 59 Bway., furnishing labor and material building 2 story, 40 x 150 ft., rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on Longwood Ave. About $75,000. Malcolmson, Higginbotham & Palmer, 405 Moffat Bldg., archts. Noted Oct. 14.

Ia., Pocahontas—Court House—Until Nov. 12, by C. Gilchrist, aud. Pocahontas Co., building 2 story, 80 x 125 ft., rein.-con.,

Buildings (Continued)

brick and stone. About $400,000. Proudfoot, Bird & Rawson, 810 Hubbell Bldg., Des Moines, archts. Noted May 6.

Ia., Shelby—School—Until Nov. 16, by Bd. Educ., building 2 story, rein.-con. and brick. About $75,000. M. E. Clapp, pres. J. Latenser & Sons, 626 Peters Trust Bldg., Omaha, Neb., archts.

Minn., Duluth—Theatre—Until Jan. 2, by Clinton Investment Co., Lyceum Bldg., constructing 2 story, 50 x 140 ft., rein.-con., tile and brick, rein.-con. flooring, concrete foundation, on West Superior St. About $135,000. W. P. Allred, 205 Ferguson Bldg., archt.

Okla., Enid—Temple—Until Nov. 15, by R. W. Shaw, archt., Beck Bldg., constructing 4 story, 100 x 150 ft., rein.-con., brick, steel and stone and terra cotta, rein.-con. flooring, rock foundation, for Masonic Temple Assn. About $300,000.

Okla., Tulsa—School—Until Nov. 8, by Bd. Educ., building 4 story, concrete, brick and steel, rein.-con. flooring, rock foundation. About $800,000. G. Winkler, 414 Palace Pl., archt.

Man., Winnipeg—Home—Until Nov. 1, by Minister Pub. Wks., building 2 story, 163 x 171 x 255 ft. home for deaf and dumb, in Tuxedo Park, near here. About $600,000. T. D. Atchison & Co., 914 Boyd Bldg., archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Hinckley**—Administration—Prescott Memorial Assn. let contract building 1 story, brick and steel, concrete foundation, to H. Purinton Co., 40 Pleasant St., Waterville. About $125,000.

★**Mass., Blackstone** — Housing—Blackstone Mfg. Co. let contract building 3 story, brick and timber houses for workmen, concrete foundations, on County and Butler Sts., to J. C. N. Bouvier Co., 18 Sayles St., Woonsocket, R. I. About $100,000. Noted Oct. 14.

★**Mass., New Bedford** — Schools — Bd. Educ. let contracts building (1) P. S. 1 on Rochambeau St. (2) P. S. 2 on Mt. Pleasant St., each to be 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, to J. W. Bishop Co., 109 Foster St., Worcester, (1) $730,000, (2) $717,000. Noted Oct. 21.

★**Mass., Norton** — Dormitory — Wheaton College let contract building 4 story, 45 x 121 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on campus, to E. F. Miner Bldg. Co., 25 Foster St., Worcester. About $100,000.

★**R. I., Providence**—School—City let contract building 2 story, 74 x 190 ft. concrete, brick and steel, on Arthur Ave., to Hope Building Co., Weybosset St., $297,-900. Noted Apr. 1.

★**N. Y., Brooklyn**—Theatre—W. Small, 189 Montague St., will build brick and stone, brick foundation, on Grand Ave. extension. About $500,000. Work will be done by day labor. Noted June 10.

★**N. Y., Lawrence**—Bank—Bank of Lawrence let contract building 1½ story, 55 x 85 ft., brick, steel and stone, brick foundation, to Hoggson Bros., 485 5th Ave., New York City. About $150,000.

N. Y., New York—Office—W. H. Dudley & Co., 165 Duane St., let contract building 2 story, 35 x 110 ft., brick and stone, brick foundation, on Varick and Watts Sts., to J. Thatcher & Son, 60 Park Ave., Brooklyn. Noted Oct. 14.

★**N. Y., New York**—Store and Office—S. W. Peck, 1140 Bway., let contract altering 5 story, brick and stone, on West 34th St., to H. J. Pepper & Co., 1777 Bway. About $75,000.

★**N. Y., New York** — Theatres — Seneca Holding Corp., 485 5th Ave., will alter New York and Criterion Theatres, brick and steel, on Bway. between 44th and 45th Sts. About $500,000. Work will be done by day labor under supervision of R. B. Smith, engr., 452 5th Ave.

★**N. Y., Schenectady**—Theatre—F. F. Proctor, 1564 Bway., New York City, will build brick and steel, here. About $400,-000. Work will be done by day labor under supervision of J. M. Merron, archt. and engr., 1564 Bway., New York City. Noted Aug. 26.

★**Pa., Charleroi**—Bank—First Natl. Bank of Charleroi let contract building 4 story, 60 x 100 ft., brick and stone, brick foundation, to Kelly & Kelly, 12th St., Long Island City. Cost between $125,000 and $150,000. Noted July 22.

★**Pa., Cresson** — Housing—Pennsylvania Coal & Coke Co. let contract building forty 2 story, 20 x 30 ft., concrete and frame houses, to W. H. Fissel & Co., 1328 Bway., New York City. About $100,000.

★**Pa., State College**—Laboratory—Pennsylvania State College let contract building 2 story, 60 x 160 ft., brick and steel, to Austin Co., Bulletin Bldg., Phila. About $75,000.

Md., Baltimore—School—City received low bid building 3 story, 46 x 150 ft. concrete, brick and steel, concrete foundation, on Laurens and Calhoun Sts., from J. L. Robinson Constr. Co., 1130 West Lafayette Ave., $322,582.

★**W. Va., Hinton**—Bank and Office—Natl. Bank of Summers let contract building 2 story, brick and stone, to W. Egelhof, 101 Park Ave., New York City. About $100,000.

★**Ala., Birmingham** — Office — Jemison Real Estate Co. and Jemison Seibels Insurance Co., 211 North 20th St., let contract building 2 story, rein.-con. and Indiana limestone, on 3d Ave. and 21st St., to Smallman-Brice Constr. Co., 1811 3d Ave. About $100,000; cost plus percentage basis.

★**O., Canton**—Schools—Bd. Educ. let contracts building 3 story, 135 x 160 ft. on Belden Ave., and 3 story, 130 x 160 ft., on Grace Ave., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundations, to G. Whike & Son, Canton, $294,200 and $296,500 respectively.

★**O., Canton**—High School—City let contract building left wing and auditorium addition to Lehman High School, 2 story, 60 x 80 ft., rein.-con., brick and steel, to R. H. Evans, Schaffer Blk., $497,885.

★**O., Carey**—School—Bd. Educ. let general contract building 2 story, 97 x 100 ft., brick and concrete, to G. Kratz & Co., Lorain, $106,597; heating plant, to Amer. Warming & Ventilating Co., 1017 Summit St., Toledo, $10,980. Noted Oct. 21.

O., Cleveland—Bathhouse—City received bids Oct. 3, building 2 story, 50 x 96 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on West 14th St. and Starkweather Ave., from W. Moore Co., 1274 West 4th St., $133,000; Forschner Co., East 10th St. and St. Clair Ave., $139,000. Noted Sept. 30.

★**O., Cleveland**—Home—Hebrew Orthodox Home for Aged, c/o S. H. White, archt., Schofield Bldg., let contract building 2 story, 135 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 736 Lakeview Rd., to Bolton-Pratt Co., Columbia Bldg. About $300,-000. Noted May 13.

Mich., Detroit—Schools—Bd. Educ., 59 Bway., received bids Oct. 22, building addition to (a) school on Abbott St., (b) Majeska School, on Trombley and St. Aubin Aves., (c) Marxhausen School, all 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, from A. W. Kutche, 623 Ford Bldg., (a) $217,213, (c) $209,746; Bryant & Detwiler, 2336 Dime Bank Bldg., (a) $232,680; M. A. Mahoney, 400 Penobscot Bldg., (a) $233,606; Culbertson & Kelley, 809 Ford Bldg., (b) $195,680; Brayton Eng. Co., 907 Kresge Bldg., (b) $195,733, (c) $196,733; Corrick Bros., 507 Owen Bldg., (b) $202,700; F. N. Cooper, 400 Penobscot Bldg., (c) $190,000. Noted Oct. 14.

★**Ill., Chicago**—Home—St. Paul's Home for Aged, c/o Woltersdorf & Bernard, archts., 138 North La Salle St., let general contract building 3 story, 40 x 180 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Grace St. and California Ave., to R. C. Wieboldt, 1534 West Van Buren St. About $200,000.

★**Wis., Eau Claire**—Hotel—Eau Claire Hotel let contract building 8 story, 120 x 125 ft., brick, stone and steel, to B. H. Stahr Co. and Schneider Constr. Co., Eau Claire. About $500,000.

★**Ia., Sioux City**—Office—J. Mirkin, 4th and Lafayette Sts., let contract building 3 story, 80 x 144 ft., to B. E. Short, Sioux City. About $75,000.

Minn., Hackensack—School—Bd. Educ., c/o R. F. Ross, clk. School Dist., received bids building 2 story, 95 x 102 ft., rein-con., brick and tile, from Bracker Constr. Co., 638 Builders Exch., $65,708; Carlsted Bros., 542 Builders Exch., $68,497; Madsen & Peterson, 646 Builders Exch., $76,300. Noted Oct. 14.

★**Mo., Elvins**—School—Bd. Educ. let contract building 3 story, 45 x 150 ft., brick and steel, rein.-con. flooring, to McCarthy Constr. Co., Odd Fellows Bldg., St. Louis. About $96,000. Noted Sept 16.

★**Okla., Shawnee** — Engine House — City let contract building rein.-con., brick, steel and stone, rein.-con. flooring, to A. P. Carr, Shawnee. About $100,000.

★**Man., Portage la Prairie**—Custodial—Minister Pub. Wks., Parliament Bldgs., Winnipeg, let contract building brick and steel, at School for Feeble Minded, here, to Wyatt-Ireland, Ltd., 505 Merchants Bank Bldg., Winnipeg, $109,474.

Federal Government Work

PROPOSED WORK

D. C., Wash.—Hangars, etc.—Treas. Dept. plans to build new hangars, etc., at Bowling Field to replace those damaged by fire. About $1,000,000. J. A. Wetmore, superv. archt.

Va., Hampton Roads — Latrines — Spec. 4261—Bureau Yards & Docks, Navy Dept., Wash., D. C., receiving bids building two 24 x 94 ft. timber latrines, concrete flooring and footing, in Units I and T, at Naval Operating Base, here; $10 deposit required for plans and spec.

Fla., Pensacola — Mooring Mast — Spec. 4314—Bureau Yards & Docks, Navy Dept., Wash., D. C., receiving bids building structural steel mooring mast, to have guyed mast, 41 ft. high, supporting structural steel crutch, 27 ft. across open end, concrete foundation, etc., at Naval Air Station here; $10 deposit required for plans and spec.

Wis., Waukesha—Hospital—L. McQuilken, supt. U. S. Health Serv. Hospital 37, here, soon receives bids constructing 2 and 3 story, concrete and brick buildings here, rein.-con. flooring, concrete foundations, to be used for nurses attendants and doctors quarters. About $300,000.

BIDS DESIRED

Mass., South Boston (Boston P. O.)—Steam Locomotive Crane — Spec. 4263 — Until Nov. 10 (change of date), by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing at Naval Dry Dock, here. Noted Oct. 21.

N. Y., New York — Electric Traveling Bridge Crane—Spec. 4250—Until Nov. 10, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building electric traveling bridge crane for bulkhead handling ways No. 1 and for steel storage.

N. Y., Oswego—Altering Post Office and Custom House—Until Nov. 19, by Treas. Dept., at office of J. A. Wetmore, superv. archt., Wash., D. C., altering, here; advertised in this issue. Noted July 1.

Pa., Phila.—Electric Lighting System—Until Nov. 9, by H. J. Lumsden, officer in charge of constr., Frankford Arsenal, installing in new power plant; advertised in this issue.

Pa., Phila.—Extension to Marine Hospital—Until Nov. 15, by Treas. Dept., Wash., D. C., building extension to U. S. Marnie Hospital, here. J. A. Wetmore, acting superv. archt.

D. C., Wash.—Centrifugal Pumps, etc.—Until Nov. 10, at U. S. Engineers Office, 305 Southern Bldg., furnishing and installing electrically driven centrifugal pumps, motor generator sets, transformers and switchboards; advertised in this issue.

W. Va., South Charleston — Distributing System—Spec. 4294—Until Nov. 3, by Bureau Yards & Docks, Navy Dept., Wash., D. C. installing, here.

Tenn., Athens—Post Office—Until Nov. 18, by Treas. Dept., Wash., D. C., furnishing labor and material building U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

O., Portsmouth — Extension to Mailing Vestibule—Until Nov. 16, by Treas. Dept., Wash., D. C., building extension to mailing vestibule, driveway, etc., at U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Ind., Indianapolis—Mezzanine Floor—Until Nov. 10, by Treas. Dept., at office of J. A. Wetmore, superv. archt., Wash.,

Federal Government Work (Continued)

D. C., building in Post Office, here; advertised in this issue.

Ill., Bloomington — Loading Shed—Until Nov. 9, by Treas. Dept., Wash., D. C., building new loading shed at U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Wash., Puget Sound—Nurses Quarters—Spec. 4293—Until Nov. 17 (change of date), by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, here.

Cal., Mare Island—Heating System—Spec. 4189—Until Nov. 3, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing in structural shop, here; $10 deposit required for plans and spec.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

R. I., Newport—Piers and Dredging—Spec. 4090—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Oct. 20, dredging, building new pier, extending 2 piers, removing wharves and fender bulkheads, at Naval Torpedo Station, Goat Island, here, (1) work complete, from Booth & Chase & Co., 29 Bedford St., Fall River Mass., (1) $55,967, (150 days), (2) $0.80, (60 days), (3) $16,000, (60 days) (4) add $31 deduct $15, (5) add $0.50, deduct $0.25; Aberthaw Constr. Co., 27 School St., Boston, Mass., (1) $69,959, (210 days), (2) $0.85, (3) $15,311, (60 days), (4) $28, (5) $0.20; R. H. Beattie, 10 Purchase St., Fall River, Mass., (1) $74,540, (210 days), (2) $0.80, (3) $40,300, (120 days), (4) $27, (5) add $0.50, deduct $0.20. Noted Oct. 7.

N. Y., New York—Turret Foundation—Spec. 4295—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Oct. 20, building at Navy Yard, here, (1) work complete, from Phoenix Constr. Co., 41 Park Row, (1) $17,897, (30 days), (2) $30; F. A. Foster Co., 43 South 17th St., Phila., (1) $18,990, (30 days), (2) add $50, deduct $10, (1) add $1.50, deduct $0.05; Hyde & Baxter, 1311 G St., N. W., Wash., D. C., (1) $23,872, (75 days), (2) add $35 deduct $20, (3) add $0.90, deduct, $0.08. Noted Oct. 14 under "Wash., D. C."

N. Y., L. I., Sayville—Radio Quarters—Spec. 4311—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids building, here, from F. G. Fearon Co., Inc., 280 Madison Ave., New York City, $39,860, (90 days); Post & McCord, 101 Park Ave., New York City, $52,200, (90 days); B. J. Hickey, 355 East 149th St., New York City $52,301, (90 days). Noted Oct. 14.

★Pa., Pittsburgh — Lavatory — Treas. Dept., Wash., D. C., let contract for plumbing work in lavatory of U. S. Post Office, here, to Weldon & Kelly, 427 4th Ave., $17,865. Noted Oct. 14.

★Del., Cape Henlopen—Double Barracks—Spec. 4265—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building here, to W. A. Russell, Lewes, $18,190, (120 days).

D. C., Wash.—Foundation and substructure—Col. Ridley, Pub. Bldgs. and Ground, received bids Oct. 23, building foundation and substructure of coping for reflecting pool, in West Potomac Park, (1) work complete, from Cranford Paving Co., 2620 E St., N. W., (1) $77,823, (3) $1.75, (4) ($0.90 (note no steel shell); C. H. Tompkins, 1812 Park Rd., (1) $81,000, (2) $79,000, (3) $2, (4) $0.85, (note no steel shell); Boyle-Robertson Constr. Co., 601 Evans Bldg., (1) $82,000, (2) $81,278, (3) $2, (4) $0.75. Noted Sept. 30.

Va. Ft. Myer—Dry Cleaning Building—Chief of Construction, Quartermaster's Corps, War Trade Bldg., Wash., D. C., received bids Oct. 18, building, here, from W. E. Mooney, Evans Bldg., Wash., D. C., $4,849, (60 days); H. C. Ball, Dist. Natl. Bank Bldg., Wash., D. C., $5,367, (45 days); J. B. Knight Wash., D. C., $5,403, 90 days.) Noted Oct. 14.

W. Va., Wheeling—Lighting, Wiring, etc.—Treas. Dept., Wash., D. C., received bids Oct. 20, installing lighting, wiring, water piping, etc., at U. S. Post Office, Court House and Custom House, here, from W. Wilby, Selma, Ala., $4,535, (90 days); E. P. Warren & Co., Newport News, Va., $7,400, (120 days); W. Hare & Sons, 46 14th St., $9,446, (125 days). Noted Oct. 7.

★Fla., Jacksonville—Scotch Marine Boilers—U. S. Engineer let contract installing in dredge "Barnard," to Charleston Dry Dock & Machine Co., $95,800. Noted Sept. 23.

★Tenn., Memphis—Steel Barges—Mississippi River Coma., 1st and 2d Dists., Custom House, let contract furnishing steel barges, to Nashville Bridge Co., foot of Shelby Ave., Nashville, $85,960. Noted Sept. 16.

★Mo., St. Louis—Heating and Electrical Repairs — Treas. Dept., Wash., D. C., let contract for heating and electrical repairs, at Marine Hospital, here, to W. Wilby, Selma, Ala., $4,892.

★Tex., Galveston — Redredging — U. S. Engineer, War Dept., Wash., D. C., let contract redredging part of waterway from here to Corpus Christi, to J. Jacobson, Galveston, $4,000.

Col., Ft. Lyon—Concrete Pavement, etc.—Spec. 4257—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bid Oct. 20, building concrete pavement, relocating and extending pipe lines, at Naval Hospital, here, from Newport Contg. & Eng. Co., Law Bldg., Newport News, Va., $113,242, (150 days). Noted Sept. 30.

Cal., San Diego—Fire Alarm System—Spec. 4288—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bid building, here, from Gamewell Fire Alarm Telegraph Co., 70 East 45th St., New York City, $27,853, (90 days). Noted Oct. 7.

★Cal., San Francisco—Marine Hospital—Treas. Dept., Wash., D. C., let contract furnishing labor and material, altering and repairing Marine Hospital here, to H. Lawson, 344 4th Ave., $2,008.

Miscellaneous

PROPOSED WORK

Golf Course—Farmington, Conn.—Country Club of Farmington plans to build new 18 hole course, including grading, excavating, etc. About $35,000. J. L. Howard, pres.

Wall—Ossining, N. Y.—C. F. Rattigan, supt. State Prisons, Capitol, Albany, opens bids about Dec. 6, building stone and concrete wall here. About $500,000. L. F. Pilcher, Hall of Records, New York City, state archt.

Pavilion—Belmar, N. J.—Boro. Council receives bids about Nov. 15, building Pavilion No. 2, 2 story, 50 x 300 ft. About $60,000. C. B. Cook, Belmar, archt.

Memorial Tower, etc.—West Raleigh (Raleigh P. O.), N. C.—State College Alumni plans to build 100 ft. tower, with clock and chimes. About $50,000. E. B. Owen, secy.-treas.

Park Improvements—Spartanburg, S. C.—City voted $50,000 bonds for park improvements. Noted May 6.

Bathing Casino, Pier, etc.—Lake Worth, Fla.—City voted $100,000 bonds to build bathing casino, pier, etc.

Car Barns—Detroit, Mich.—Street Ry. Comn. plans to build brick, concrete and steel car barns for new municipal street car lines, on Shoemaker, Warren, Lillibridge and St. Jean Aves. About $300,000. W. C. Markham, 410 City Hall, engr.

Park Improvements—Manitowoc, Wis.—City having plans prepared improving 52 acres new Lincoln Park. About $399,000.

Recreation—Wayzata, Minn.—Village and Commercial Club having plans prepared by Morell & Nichols, archts., 901 Palace Bldg., Minneapolis, for recreation center, work includes street widening, sodding, tree planting, bathing facilities and building municipal pier.

Water Front Improvements — Aransas Pass, Tex.—City election, Nov. 9, to vote on $225,000 bonds to improve water front. R. Savage, Corpus Christi, atty.

Tunnel—Houston, Tex.—City Council having plans prepared for tunnel on North Main St., under railroad tracks, 21 ft. wide on each side of double structure, including space for street car tracks. About $200,000. J. C. McVea, city engr.

Incinerator—Wichita Falls, Tex.—City voted $25,000 bonds to build incinerator. J. Montgomery, city engr. Noted Oct. 7.

Playground Improvements — Wichita Falls, Tex.—City voted $35,000 bonds to improve playgrounds. J. Montgomery, city engr.

Swimming Pool—Ada, Okla.—City voted $15,000 bonds to build swimming pool. Johnson & Benham, Kansas City, Mo., engrs.

Bathhouse—La Jolla, Cal.—City having plans prepared by G. A. Hanssen, archt., San Diego, for brick bathhouse, equipment and improvements to water front. Cost between $25,000 and $30,000. Election will be called to vote on bonds for project.

Pumps—Montreal, Que.—Montreal Water Bd. soon receives bids for two 12,000,000 gal. and one 6,000,000 gal. pumps.

BIDS DESIRED

Heating, etc.—Ossining, N. Y.—Until Nov. 23, by C. F. Rattigan, supt. State Prisons, Capitol, Albany, for heating, sanitary and electric work, etc., at Sing Sing Prison, here; advertised in this issue.

Paving Bricks—Phila., Pa.—Sears Roebuck Co., Arthington St. and Homan Ave., Chicago, receiving bids on 160,000 paving bricks for new plant, here.

Foundation—Pittsburgh, Pa.—Pittsburgh Malleable Iron Co., 57th St. and Allegheny River, receiving bids on foundation for 202 x 322 ft. foundry. Total cost about $500,000. F. Chase, 645 North Michigan Ave., Chicago, archt.

Concrete Mixer—Cleveland, O.—H. C. Schrader Constr. Co., 1643 East 40th St., receiving bids for concrete mixer.

Power Plant Equipment—Michigan City, Ind.—Until Nov. 9, by city, for one 8,000,000 gal. high duty pumping engine, two water tube boilers and stokers, feed water heaters, boiler feed pumps and miscellaneous equipment. D. C. Ford, city engr.; advertised in this issue.

Backfiller—Detroit, Mich.—Until Nov. 2, by J. A. Martin, comr. Purchases & Supplies, City Hall, furnishing gasoline driven backfiller with 4 cylinder type engine and caterpiller traction with 35 ft. boom, for Dept. Pub. Wks.

Testing Machines, etc.—Detroit, Mich.—Until Nov. 1, by Dept. Purchases & Supplies, furnishing 1 Universal testing machine of 300,000 lb. capacity, with necessary tools and equipment. G. J. Finn, purch. agt.

Rock Crusher—Darlington, Wis.—City receiving bids for rock crusher, complete. R. E. Orton, mayor.

Tractor—Kenosha, Wis.—Kenosha Co. receiving bids for tractor for snow plow. J. Herzog, highway comr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Piles, Bulkhead, etc.—Brooklyn, N. Y.—E. S. Walsh, supt. Pub. Wks., Capitol, Albany, let contract driving foundation piles for proposed grain elevator, building concrete bulkhead wall along Henry St. and dredging Henry St. Basin, Gowanus Bay, here, Contr. T-79, to Raymond Concrete Pile Co., 90 West St., New York City, $428,269. Noted Oct. 21.

★Electric Generator Set, etc.—Marcy, N. Y.—State Hospital Comn., Capitol, Albany, let contract furnishing electric generator, etc., at Utica State Hospital, here, to Mack & Mack, 103 Park Ave., New York City, $23,513. Noted Oct. 14.

★Tunnels, etc.—Marcy, N. Y.—State Hospital Comn., Capitol, Albany, let contract building heating tunnels and furnishing pipe for steam, etc., at Utica State Hospital, here, to M. Kantrowitz, Market St., Albany, $705,092. Noted Oct. 14.

Pavilions—Randalls Island (New York P. O.), N. Y.—Dept. Pub. Welfare, Municipal Bldg., received bids Oct. 21, altering and repairing (1) Tredgold, (2) Nightingale Pavilions, (3) combined, from G. E. Ward, 417 East 34th St., New York City, (1) $35,000, (2) $34,844, (3) $69,873; Bertwin Constr. Co., 103 Park Ave., New York City, (1) $36,800, (2) $37,200, (3) $74,000; M. D. Lundin, 235 East 122nd St., New York City, (1) $36,389, (2) $36,498, (3) $72,489; S. Guidera, (2) $36,775. Noted Oct. 14.

★Plumbing System—Cleveland, O.—Bd. Educ., Rockwell Ave., let contract installing plumbing system in Miles Standish School, East 92d St. and Parkgate Ave., to Polowski Plumbing Co., East 40th St., $76,543.

★Portland Cement—Detroit, Mich.—Street Ry. Comn., 410 City Hall, let contract furnishing 40,000 bbl. Portland cement, to Universal Portland Cement Co., 210 South La Salle St., Chicago, and 10,000 bbl., to Wabash Portland Cement Co., 1824 Ford Bldg., at $3.71 per bbl. in cloth sacks, less $0.25 each for returned sacks.

Miscellaneous (Continued)

Foundation—Milwaukee, Wis.—Bd. Industrial Educ., 62 Mason St., received bids Oct. 21, building rein.-con. foundation, for 2nd unit of Continuation School, 7 story, 145 x 268 ft., 6th and Prairie Sts., from E. Steigerwald Co., 3607 Vliet St., $94,840. Noted Oct. 14, under "Buildings."

★Transmission Line, etc.—Sabin, Minn.—City let contract for materials for 18 mi. high tension transmission line from here to point near Fargo, N. D., and for electric distribution system here, to St. Paul Electric Co., 145 East 5th St., St. Paul. About $25,000.

★Pipeline — Beaumont, Kan. — Wichita Natural Gas Co., 349 North Main St., let contract laying 24 mi. 8 in. pipeline from gas field, here, north to New Youngfield and west to Eldorado, to Meredith Constr. Co., Eldorado. About $500,000.

Federal Power Commission Applications

Applications before the Federal Power Commission, Washington, D. C., up to and including September 28, 1920.

1. Dixie Power Co., Title Guaranty Bldg., St. Louis, Mo. License for dam and Power House, White River, Ark., for mining, transportation, etc.

2. C. W. Spoerry, Bonners Ferry, Idaho. Preliminary permit for power plant on Moyie River, Pend d'Oreille Natl. Forest, Idaho, for furnishing power and light to Bonners Ferry, and manufacture of chemicals.

3. Washington Irrigation & Development Co., c/o Electric Bond & Share Co., 71 Bway., New York City. Preliminary permit for reservoir and power house for electrification of railroads, supplying energy to individual plants, for operation of pumping plants to supply water to the arid lands of the region, and for public utility purposes.

4. Speel River Project, 418 Foxcroft Bldg., San Francisco, Cal. Preliminary permit for reservoirs, conduits, power houses, and transportation lines, Speel River, Tease Lake, Crater Lake, Long Lake, Tongass Natl. Forest, Alaska.

5. Rocky Mt. Power Co., c/o Sullivan & Cromwell, 49 Wall St., New York City. Preliminary permit for power project, Flathead Lake and Flathead River, Mont., for railways, electro-chemical and metallurgical industries, municipal, commercial, general utility and other purposes.

6. Niagara County Irrigation & Water Supply Co., c/o Thurman, Bulkley & Quigley (Attorneys for Applicant), 501 Union Trust Bldg., Wash., D. C. Preliminary permit for conduits, power houses, transmission lines, etc., Niagara River, N. Y.

7. Roanoke River Development Co., c/o H. G. Buchanan Pres., 318 Mutual Bldg., Richmond, Va. Preliminary permit for reservoirs, conduits, power houses, transmission lines, etc., Roanoke River, Va., for public utility.

8. St. Lawrence Transmission Co., Potsdam, N. Y. Preliminary permit for power project, St. Lawrence River, N. Y., for public service and private industries.

9. Pitt River Power Co., c/o Harr & Bates, Westory Bldg., 14th and F Sts., Wash., D. C. Preliminary permit for reservoirs, conduits, power houses, and transmission lines, Pitt River, Cal.

10. Sound Power Co., 25 Broad St., New York City. Preliminary permit for reservoirs, conduits and power house, Sultan River and Olney Creek, Wash., for manufacture of pulp and paper.

11. Straits Power Co., Room No. 1517, 25 Broad St., New York City. Preliminary permit for reservoir, conduit and power house, Solduc River and Crescent Lake, Wash., for manufacture of pulp and paper.

12. Big Horn Canyon Power & Irrigation Co., Hardin, Mont. Preliminary permit for Big Horn River, Mont.

13. Ford Motor Co., Dearborn, Mich. License for power plant at Government dam at Green Island, Hudson River, N. Y., for manufacturing.

14. Western New York Utilities Co., Inc., Medina, N. Y. Preliminary permit for diversion of additional 500 s.f. for power development, Erie Canal, N. Y., for public utility.

15. Hydraulic Race Co., Lockport, N. Y. License for diversion of 1,000 s.f. of water, Niagara River, N. Y., for public utility.

16. The Niagara Falls Power Co., Niagara Falls, N. Y. License for diversion of all water permitted under treaty of May 13, 1910, Niagara River, N. Y.

17. Western Tie & Timber Co., 905 Syndicate Trust Co., St. Louis, Mo. Preliminary permit for series of power plants and transmission lines, Current River, Mo

18. Idaho Power Co., c/o Marshall O. Leighton, McLachlen Bldg., Wash., D. C. Preliminary permit for reservoir, conduit and power house, Snake River (Twin Falls), Idaho, for public utility.

19. Idaho Power Co., c/o Marshall O. Leighton, McLachlen Bldg., Wash., D. C. Preliminary permit for reservoir, conduits and power houses, Snake River, (Upper Salmon Falls), Idaho, for public utility.

20. Utah Power & Light Co., c/o Marshall O. Leighton, McLachlen Bldg., Wash., D. C. Preliminary permit for Soda Point, Lava, Narrows, and Mink power projects, Bear River, Idaho, for public utility.

21. W. R. Banks, Lock Box 1005, Lamar, Mo. License for dams and conduits, Osage and Niangua Rivers, Mo.

22. Paul T. Brady, 165 Bway., New York City. Preliminary permit for dams and power houses, Delaware River, (Butler's Rift, Bushkill, Belvidere, Barryville-Shohola), N. Y., Pa., N. J., for public utility.

23. Louisville Power Corp., c/o Hugh L. Cooper, 101 Park Ave., New York City. Preliminary permit for dams, conduits, power houses, transmission lines, etc., St. Lawrence River, N. Y.

24. Lower Niagara River Power & Water Supply Co., c/o Hugh L. Cooper, 101 Park Ave., New York City. Preliminary permit for conduits, power houses, transmission lines, etc., Niagara River, N. Y.

25. Niagara, Lockport & Ontario Power Co., Marine Trust Co. Bldg., Buffalo, N. Y. Preliminary permit for conduits, power houses, transmission lines, etc., Niagara River, N. Y.

26. City of Buffalo, Buffalo, N. Y. Preliminary permit for hydro-electric plant, Niagara River, N. Y., for municipal use.

27. Courtland Prentice Chenault, Tulsa, Okla. Preliminary permit for power projects, Arkansas River, Okla., for public utility.

28. J. D. Markham, A. Kelsey, and J. F. Druar, 512-13-14 Globe Bldg., St. Paul, Minn. License for dam and power house, St. Croix River, Minn.

29. Saint Cloud Electric Power Co., c/o St. Cloud Water Power Co., St. Cloud, Minn. Preliminary permit for dam, lock, conduits, etc., Mississippi River, Minn., for public utility.

30. Beckman & Linden Eng. Corp., Atlas Bldg., 604 Mission Street, San Francisco, Cal. Preliminary permit for reservoir and power house, Colorado River, Ariz. and Cal.

31. Canada Syndicate, Ltd., and Duncan, Young & Co., Inc., c/o Duncan, Young & Co., Inc., 111 Bway., New York City. Preliminary permit for power, navigation and storage projects, Delaware River, N. J., Pa., and N. Y.

32. R. W. Hawley, Room 912 Commercial Bldg., 833 Market St., San Francisco, Cal. Preliminary permit for reservoirs, conduits, power houses, and transmission lines, Silver Creek, Cal.

33. C. A. Heberlein, Box 858, Prescott, Ariz. Preliminary permit for power project, Cataract Creek, Grand Canyon Natl. Park, Ariz.

34. Montana Water Power & Electric Co., 702 Spalding Bldg., Portland, Ore. Preliminary permit for power project, South Fork of Flathead or Pend d'Oreille River at outlet of Flathead Lake, Mont.

35. Northwestern Power & Mfg. Co., c/o Donworth, Todd & Higgins, Hoge Bldg., Seattle, Wash. Preliminary permit for reservoir, conduit and power house, Lake Crescent and Lyre River, Wash., for public utility.

36. Alex Polson, M. E. Reed and W. H. Abel, c/o W. H. Abel, Montesano, Wash. Preliminary permit for power project, Wynooche River, Wash., to develop a copper mine.

37. J. Kennard Thomson & Peter A. Porter, c/o Dewitt Clinton, Buffalo Savings Bank Bldg., Buffalo, N. Y. Preliminary permit for reservoir and power house, Niagara River, N. Y.

38. Crown Willamette Paper Co., Pittock Block, Portland, Ore. License for modification of dam and power house, Willamette River, Ore., for manufacture of wood pulp.

39. Millard F. Bowen, 117 Tennessee Ave., Wash., D. C. License for reservoirs, conduits, locks and power houses, Lake Erie, Niagara River and watersheds between Lake Ontario and Hudson River, N. Y., for navigation and power for unstated uses.

40. A. P. Connor, Five Cent Savings Bank Bldg., Springfield, Mass. Preliminary permit for power project, Connecticut River, Mass. and Conn.

41. Alabama Power Co., Birmingham, Ala. Preliminary permit for reservoir and power house, Coosa River, Ala.

42. The Cove Co., Box 557, Ocala, Fla. Preliminary permit for dam and power house, Withlacoochee River, Fla.

43. Big Bend Power Co., c/o F. C. Moon, Room 418 Lynch Bldg., Lynchburg, Va. Preliminary permit for power project, James River, Va.

44. Hugh L. Cooper, 101 Park Ave., New York City. Preliminary permit for reservoir, conduit and power house, Clark Fork of Columbia River, Wash.

45. The Niagara Gorge Power Co., 604 Ellicott Sq., Buffalo, N. Y. Preliminary permit for diversion of water for power purposes, Niagara River, N. Y.

46. W. A. Dromgold, York, Pa. Preliminary permit for dam and power house, Susquehanna River, Pa.

47. Moore's Creek Boulder Gold & Dredging Co., c/o Clinton H. Hartson, Boise, Idaho. License for transmission line, Idaho, to transmit electric energy to works of applicant for use in connection with its mining operations.

48. State of Illinois, c/o The Governor, Springfield, Ill. License for navigation and power project, Desplaines and Illinois Rivers, Ill., for improvement of navigation and development of power for unstated uses.

49. Tri-State Power & Milling Co., and Tri-State Power Co., Salem, Va. Preliminary permit for reservoir and power house, New River, Va. and W. Va.

50. Tongass Alaska Pulp & Paper Co., 817-823 Alaska Bldg., Seattle, Wash. Preliminary permit for reservoirs, conduits and power houses, Fish Creek, Swan Creek, Big Lake, Mirror Lake and Swan Lake, Tongass Natl. Forest, Alaska, for manufacture of pulp and paper.

51. Village of Grand Rapids, Grand Rapids, Minn. Preliminary permit for power plan at Government dam on Mississippi River, Minn., for municipal use.

52. City of Dothan, Dothan, Ala. Preliminary permit for power project, Choctawhatchee River, Ala., for municipal use.

53. W. T. Larimore, Leo E. Mills and Charles E. Bailey, Hugo, Okla. Preliminary permit for power project, Little River, Okla.

54. Washington Development Corp., 1020 L. C. Smith Bldg., Seattle, Wash. Preliminary permit for power and irrigation project, Dungeness River and West Fork Creek, Olympic Natl. Forest, Wash., for power and irrigation.

55. Reed Bingham, Box 228, Pensacola, Fla. Preliminary permit for power projects, Perdido, Styx and Blackwater Rivers, Ala. and Fla.

56. William F. Scheffel, Box 891, Wenatchee, Wash. Prelimnary permit for power and irrigation project, Columbia River, Wash., for power and irrigation.

57. Columbia Valley Power Co., c/o Robert O. Hayward, Pres., 28 Nassau St., New York City. Preliminary permit for dams, conduits, power houses, Deschutes River, Ore., for manufacturing and irrigation.

58. Luther Hill, Independence, Cal. License for dam, conduit, power house, Sawmill Creek, Cal., for pumping for irrigation for farm power and light.

59. Edw. L. Beyard, Seligman, Ariz. Preliminary permit, Colorado River, Ariz., Nev., Hualapai Indian Reservation.

60. L. J. Vogter, 3567 East "B" St., Tacoma, Wash. Preliminary permit, Orchard Lake (Shrimp Bay), Swan Lake (Carroll Inlet), Fish Creek (Thorne Arm), Shelockum Lake (Bailey Bay), Alaska, for manufacture of pulp and paper.

61. Wm. D. Grant, B. Y. Grant, Donald Sinclair, S. C. Shuvick, c/o William D. Grant, Wrangell, Alaska Preliminary permit, Crittenden Creek, Mill Creek, Bradfield River, Alaska, for mining, manufacture of pulp, paper, etc.

OFFICIAL PROPOSALS

Bids: Nov. 8.

Construction of Osage River Bridge

Jefferson City, Mo.

Sealed proposals addressed to the County Court of Cole Co., Missouri, and endorsed "Proposal for the Construction of the Osage River Bridge, Project No. 12," will be received by the court until 10 o'clock a.m., on the eighth day of November, 1920, and at that time will be publicly opened and read at the office of the County Clerk, in the County Court House, Jefferson City, Mo.

The bridge to be build under these specifications is to be locateed over the Osage River, a short distance south of Huber's Ferry, or Lisletown, Mo., about five (5) miles from the Missouri River. It is to be of structural steel, consisting of one one hundred (100) foot riveted-through-truss vertical-lift span, flanked on each side by two one hundred and forty (140) foot riveted-through truss spans and one sixty (60) foot riveted-pony truss span. The vertical lift span is of the Waddell type. The weight of the span is balanced by concrete counterweights, which are suspended from plough-steel cables which pass over sheaves near the tops of the towers and thence downward to the lift span. The span is to be operated by handpower. The river-pier foundations consist of concrete-filled cribs sunk by open dredging, resting on piles; while the end buried piers rest on spread footings. As shown on the drawings, the deck is to consist of one layer of longitudinal yellow pine plank, 4 in. thick, carried on six-by-eight (6 x 8) in. creosoted ties, two ft. six in. (2 ft. 6 in.) centres, resting on four (4) lines of steel stringers; but alternative bids will be asked on white-oak planks. The handrails are of gas pipe.

Material can be delivered by rail at Osage City, Mo., which is on the Osage River, about four (4) miles below the bridge site. There is a spur track leading to the boat landing for the Osage River boats above the Missouri Pacific Railroad bridge, and the river is navigable at all times of the year from the said boat landing to the bridge site.

Material can be landed from barges at the site on either side of the river. The ground at the west end of the bridge site is level for about six hundred (600) ft. from the end of the bridge, beyond which is a slight ridge. The level stretch is subject to overflow during extreme high water, but the ridge is not. The ground east of the bridge site rises slightly for some three hundred (300) ft., a point above extreme high water being reached about one hundred and fifty (150) ft. from the end of the bridge. Ample space for storge is to be found at either end of the bridge.

From the United States Government Lock and Dam, about two (2) miles up stream from the bridge site to the Missouri River the Osage River is practically a pool or lake under normal conditions. The record of gauge readings (shown on Sheet No. 1) taken just below the lock and dam from 1903 to 1907, indicate the probable variations in the water level. Complete daily records taken at this gauge for about twenty-five (25) years past are on file at the office of the United States Engineers, Kansas City, Mo., and may be examined by bidders at any time.

Occasionally a combination of high water in the Osage River with low water in the Missouri River produces considerable current at the bridge site, but such occurences are infrequent. They are most likely to happen from December to March.

The work to be done will be let under the following contracts to one or more bidders:

Contract No. 1—The manufacture and delivery of structural metal.

Contract No. 2—The manufacture and delivery of the machinery.

Contract No. 3—The construction of the substructure and deck, and the erection of the structural metal and machinery.

Each bidder may tender on any or all of the foregoing contracts.

Plans and specifications are on file and may be inspected in the office of the State Highway Department, Jefferson City, Mo.; the office of the Consulting Engineers, Waddell & Son, 934 Wyandotte Street, Kansas City, Mo., and at the office of the undersigned. A set of plans and specifications can be obtained from the Consulting Engineers upon deposit of ten dollars ($10.00), which amount will be refunded if both plans and specifications are returned in good condition. Proposals shall be submitteed on blank forms provided for the purpose by the undersigned, and shall be accompanied by certified checks or proposal bonds for ten (10) per cent of the engineer's estimate for the contract tendered upon.

The right is reserved by the County Court to reject any or all bids.

County Court of Cole County, Missouri.
E. F. C. HARDING,
County Highway Engineer.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Oct. 29.

Barge Canal Terminals

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Friday, October 29th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, as follows:

TERMINAL CONTRACT No. 26-A

For completing the terminal at Rouses Point.

Contract plant sheets 1 and 2.

The work shall be completed on or before July 1st, 1921.

TERMINAL CONTRACT No. 229

For constructing the foundation of the proposed terminal freighthouse at Rochester. Contract plans, sheets 1 and 2.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction [illegible] the proposal is made.

[illegible] be made to the person or p[illegible] whose proposal shall be lowest in cost to [illegible] state for doing the work, and which sha[illegible] comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Supt. of Public Works.

Bids: Nov. 8.

Installing Steam Pumping Engine and Air Compressor

Charlotte, Mich.

Sealed proposals will be received by the City Clerk of Charlotte up to 7 p.m. of Monday, the eighth day of November, 1920, for the installation of a steam pumping engine and air compressor.

The pump will be the horizontal, double-acting, duplex, crank and fly-wheel type, capacity 3,000,000 gal. The air compressor will be steam driven with a capacity of 500 cu.ft. of free air per minute.

The plans and specifications under which the work is to be done may be examined at the office of the City Clerk, Charlotte, Mich., or at the office of Russell A. Murdoch, Consulting Engineer, 603 Free Press Bldg., Detroit, Mich., and copies of the same may be obtained by making a deposit of $5, which will be refunded upon their return in good condition.

A certified check for a sum not less than 5 per cent of the amount of the proposal will be required with each proposal.

The right to accept any proposal, to reject any or all proposals and to waive defects in proposals, is reserved by the city.

L. S. DODGE,
Mayor.
HOWARD O. TOLBERT,
City Clerk.
Charlotte, Mich.
RUSSELL A. MURDOCH,
Consulting Engineer,
Detroit, Mich.

CONSTRUCTION NEWS

UPS AND DOWNS OF THE MARKET

STEEL RAILS—Quotations on standard rails remain the same as for the last few months. The upper quotation on 25- to 45 lb. sections is $3.75 per 100 lb., while the general maximum is $3.50.

PIPE—The Pittsburgh basing card on wrought pipe has not been superseded. Price of cast-iron pipe is practically the same as last month. Very few changes in sewer pipe.

WOOD BLOCKS—Slight decrease in New York owing to cheaper lumber.

CONCRETING MATERIALS—Sand and gravel maintain the same level in New York as per the last half year or so. Slight advance in St. Louis and decreases in Minneapolis and Detroit. Very few changes in price of crushed stone. No change in cement in New York, but there has been a drop of 74c. in Jersey City. Drops are also noticed in Minneapolis and Atlanta, with increases in St. Louis and Detroit. There are indications that cement will be lower before it is higher. Dallas reports a $1 decrease on crushed stone, which is now plentiful; sand is up 50c.

REINFORCING MATERIALS—Few changes noted. On reinforcing bars the maximum mill price has been reduced 25c. In Dallas a 12 per cent advance has just occurred, and new prices will be published next month.

COMMON BRICK—New York price still remains $22.70, but signs point to an increase. Decreases in Detroit and Atlanta. Up $3 in Dallas.

HOLLOW TILE—No changes in New York or Perth Amboy. Quotations resumed in St. Louis. Decline in Baltimore and Chicago.

STRUCTURAL MATERIAL—Situation quiet as winter approaches. Independent companies quote structural beams at $2.10, although this is not a rigid price. Price of rivets down in Chicago warehouse. The plate market is easier, with only a $1 difference in ton prices between independent and Steel Corporation quotations. New York warehouses announced a reduction on Oct. 27; structural shapes are now quoted at $4.30 as against the former price $4.58; floor plates are now $6.75, tank plates $4.50. Structural rivets are now $8.50 in Dallas, against former price of $7.50.

ROOFING MATERIALS—Although we note no price changes, it is predicted that tar felt will be reduced $10 per ton shortly.

STEEL SHEETS—The only change is in New York, where a decrease of 23c. per 100 lb. is noted on the minimum price of blue annealed sheets.

LUMBER—Rough Douglass fir has declined $3.50 in San Francisco. There has been a price adjustment in St. Louis and a general decrease on pine in Chicago, a slight increase in Baltimore, and decreases in Detroit and Minneapolis. Lumber has declined 25 per cent in New Orleans.

LABOR—Only wage changes noted are in Atlanta. Labor is generally more plentiful.

Price advances are indicated by **heavy type**; declines by *italics*

PIG IRON—Quotations compiled by The Matthew Addy Co.:

	Current	One Year Ago
CINCINNATI		
No. 2 Southern	$46.50	$36.60
Northern Basic	51.30	34.00
Southern Ohio No. 2	48.50	36.55
NEW YORK, tidewater delivery		
2X Virginia (silicon 2.25 to 2.75)	57.12	39.40
Southern No. 2 (silicon 2.25 to 2.75)	52.10	41.40
BIRMINGHAM		
No. 2 Foundry	42.00@45.00	33.00
PHILADELPHIA		
Eastern Pa	51.25*	38.10*
Virginia No. 2	50.00†	39.10†
Basic	51.00*	34.60*
Grey Forge	49.00*	34.60*
CHICAGO		
No. 2 Foundry Local	46.00	36.25
No. 2 Foundry Southern	50.00	38.00
PITTSBURGH, including freight charge from the Valley		
No. 2 Foundry Valley	49.56	....
Basic	48.96	34.40
Bessemer	51.96	35.40

* F.o.b. furnace. † Delivered.

RAILWAY SUPPLIES

STEEL RAILS—The following quotations are per ton f. o. b. Pittsburgh and Chicago for carload or larger lots. For less than carload lots 5c. per 100 lb. is charged extra:

	Pittsburgh		Chicago	
	Current	One Year Ago	Current†	One Year Ago
Standard bessemer rails	$55.00	$45.00	$45.00@$55.00	$45.00
Standard openhearth rails	57.00	47.00	47.00@ 57.00	47.00
Light rails, 8 to 10 lb.	2.88 @ **4.00***	2.585*	2.45 @ 3.50*	2.585
Light rails, 12 to 14 lb.	2.84 @ **3.84***	2.54*	2.41 @ 3.34*	2.54
Light rails, 25 to 45 lb.	2.75 @ **3.75***	2.45*	2.32 @ 3.25*	2.45

* Per 100 lb.

RAILWAY TIES—For fair-sized orders, the following prices per tie hold:

		7 In. x 9 In. by 8 Ft. 6 In.	6 In. x 8 In. by 8½ Ft.
Chicago	Plain	$2.00	$2.25
Chicago	Creosoted	2.25	2.50
San Francisco	Douglas Fir—Green	1.35	.96
San Francisco	Douglas Fir—Creosoted	2.70	1.92

Prices per tie at mills in St. Louis district:

Untreated A Grade White Oak 6x8x8		Untreated A Grade Red Oak 6x8x8	
No. 1	$0.80	No. 1	$0.60
No. 2	.90	No. 2	.70
No. 3	1.00	No. 3	.80
No. 4	1.25		
7x9x8 white oak			1.05
7x9x8 red oak (No. 4)	$0.80	No. 5	.87

Note:—Prices delivered in St. Louis, white oak 6 x 8 x 8, best grade, $2; 7 x 9 x 9, $2.25.

TRACK SUPPLIES—The following prices are base per 100 lb. f.o.b. Pittsburgh for carload lots, together with the warehouse prices at the places named:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago	St. Louis	San Francisco
Standard spikes, $\frac{9}{16}$-in. and larger	$4.00@4.25	$3.35	$3.40@4.00	$5.47½	$7.75
Track bolts	6.00@6.50	4.35	4.60@5.00	Premium	8.75
Standard section angle bars	3.00@4.00	3.00	2.75@3.40	Premium	5.45

PIPE

WROUGHT PIPE—The following discounts are to jobbers for carload lots on the Pittsburgh basing card:

BUTT WELD

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
¼ to 3	54 to 57½	41½ to 44	⅜	15½ to 25½	+1½ to 11½
			½	19½ to 29½	1½ to 11½
			¾ to 1½	24½ to 34½	8 to 18½

LAP WELD

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
2	47 to 50½	34½ to 38	2	20½ to 28½	6½ to 14½
2½ to 6	50 to 53½	37½ to 41	2½ to 6	22½ to 30½	9½ to 17½
7 to 12	47 to 50½	33½ to 37	7 to 12	19½ to 27½	6½ to 14½
13 and 14	37½ to 41				
15	35 to 38½				

BUTT WELD, EXTRA STRONG, PLAIN ENDS

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
¾ to 1½	52 to 55½	39½ to 43	¾ to 1	24½ to 34½	9½ to 19½
2 to 3	53 to 56½	40½ to 44			

LAP WELD, EXTRA STRONG, PLAIN ENDS

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
2	45 to 48½	33½ to 37	2	21½ to 29½	8½ to 16½
2½ to 4	48 to 51½	36½ to 40	2½ to 4	23½ to 31½	11½ to 19½
4½ to 6	47 to 50½	35½ to 39	4½ to 6	22½ to 30½	10½ to 18½
7 to 8	43 to 46½	29½ to 33	7 to 8	14½ to 22½	2½ to 10½
9 to 12	38 to 41½	24½ to 28	9 to 12	9½ to 17½	5½ to +2½

STEEL—From warehouses at the places named the following discounts hold for steel pipe:

	Black New York	Black Chicago	Black St. Louis
⅜ to 3 in. butt welded	40%	54@40%	37%
2½ to 6 in. lap welded	35%	50@40%	33⅓%

	Galvanized New York	Galvanized Chicago	Galvanized St. Louis
⅜ to 3 in. butt welded	24*%	40⅓@30%	22%
2½ to 6 in. lap welded	20%	37⅓%@27½	19%

Malleable fittings, Class B and C, from New York stock sell at + 32% list prices. Cast iron, standard sizes, net.

CAST-IRON PIPE—The following are prices per net ton for carload lots:

	New York Current	New York One Month Ago	New York One Year Ago	Chicago	St. Louis	San Francisco
4 in.	$87.22	$86.20	$57.30	$88.10	$84.70	$110.70
6 in. and over	77.22	81.20	54.30	83.10	80.70	105.70

Gas pipe and Class "A," $4 per ton extra; 16-ft. lengths, No. 1.

CLAY DRAIN TILE—The following prices are per 1000 lin.ft.:

Size, In.	New York Current	New York One Year Ago	St. Louis	Chicago	San Francisco	Dallas
3	$62.00	$35.00	$60.00	$60.00	.....	$69.00
4	77.50	51.00	70.00	80.00	$90.00	62.00
5	110.00	65.00	.....	100.00	115.00	84.00
6	140.00	90.00	125.00	120.00	150.00	110.00
8	228.00	130.00	195.00	180.00	250.00	181.00

SEWER PIPE—The following prices are in cents per foot for carload lots:

Size, In.	New York Current Delivered	New York Year Ago Delivered	St. Louis	Chicago	San Francisco	Dallas
3	$0.24	$0.102	....	$0.15	$0.14	....
4	.24	.102	....	.15	.175	$0.25
5	.36	.153	....	.225	.21	....
6	.36	.153	$0.21	.225	.245	.35
8	.56	.238	.30	.35	.35	.50
10	.84	.357	.42	.525	.49	.....
12	1.08	.459	.54	.625	.63	.90
15	1.61	.612	.806	.90	1.05	.....
18	2.30	.85	1.054	1.25	1.47	.....
20	2.76	1.02	1.426	1.50	1.96	.....
22	3.68	1.36	....	2.00	....	.....
24	4.14	1.53	1.86	2.25	2.52	.....
27	....	2.45	3.00	3.50	3.50	.....
30	....	2.664	3.65	4.00	4.20	.....
33	....	3.51	4.00	4.75	....	.....
36	....	3.9975	4.90	5.50	....	.....
	3	5	8	12	24	36
Boston	$1.65	$0.2475	$0.4225	$0.7425	$2.475	$6.875
Minneapolis	....	....	47	85	2.75	6.16
Denver	Quotations not available					
Seattle	....	....	40	80	2.88	....
Kansas City	No prices obtainable					
Los Angeles	.0975*	.1525*	.27	.48	.60*	.....
New Orleans	10 per cent off				15 per cent off	
Cincinnati	53 per cent off				38%	
Atlanta	.16*	.24*	37½	.64	2.44	.....
Montreal	....	....	35 per cent. off			
Detroit	....	....	51 per cent. off		49 per cent. off	
Baltimore delivered	....	....	36 per cent. off		30%	28%

* 4-in., 6-in., 30-in. respectively.

ROAD AND PAVING MATERIALS

ROAD OILS—Following are prices per gallon in tank cars 8000 gal. minimum f.o.b. place named:

	Current	One Year Ago
New York, 45% asphalt... (at terminal)	$0.13	$0.04½
New York, 65% asphalt. (" ")	.12	.06
New York, binder (" ")	.13	.06½
New York, flux (" ")	.13	.04¾
St. Louis, 40% asphalt	.12	.04½
Chicago, 40-50% asphalt	.08½	.05
Chicago, 60-70% asphalt	.08½	.05½
Dallas, 40-50% asphalt	.10	.07
Dallas, 60-70% asphalt	.13	.08
Dallas, 75-90% asphalt	.15	.10
San Francisco, binder	.13	....

ASPHALTUM—Price per ton in packages (350-lb. bbls. or 425-lb. drums), and in bulk in carload lots:

	Package	Bulk
New York (Bayonne, N. J.)	$36.50	$29.00
Boston	42.42	....
Chicago	37.50	30.00
San Francisco	19.00	13.00
Dallas	50.00	45.00
Seattle	27.00	....
Denver	....	50@60
Minneapolis	40.00	34.00
Kansas City	40.00	32.00
St. Louis	40@45	....
Baltimore	42.25	....
Los Angeles	21.15	....
Montreal	....	37.00
Atlanta	56.50	
Detroit	49.00	42.25
Maurer, N. J.	35.00	32.00
	42.00	41.00

PAVING STONE—

New York	5-in. granite	No quotations	
Chicago	About 4x8x4 dressed	$3.40	sq.yd.
	About 4x8x4 common	3.05	sq.yd.
San Francisco	Basalt block 4x7x8	65.00	per M
Kansas City	Granite	3.65	sq.yd.
Boston	5-in. granite	110.00	per M
Atlanta	Granite	2.00	sq.yd.
Detroit	Granite, 26½ blocks per sq. yd.	4.50	sq.yd.
Baltimore	Granite	2.50	sq.yd.
Montreal	Granite	5.90	sq.yd.
New Orleans	Granite	3.00	sq.yd.
Cincinnati	Granite	3.25	sq.yd.

FLAGGING—

New York	Bronx	$0.24	sq.ft.
	Manhattan	.25	sq.ft.
	Queens, 5 ft.	.26	sq.ft.
	6x20-in. cross-walk	.95	lin.ft.
Chicago	18 in. wide	.70	lin.ft.

CURBING—Bluestone per lineal foot, in New York, costs 70c. for 5x16 in., 80c for 5x18 in.

WOOD BLOCK PAVING—

	Size of Block	Treatment	Per Sq.Yd.
New York	3½	16	$4.02
New York	4	16	4.06
Boston	3	16	3.00
Chicago	4	16	3.75@4.00
Chicago	3½	16	3.25@3.50
St. Louis	3½	16	3.10
St. Louis	4	16	3.55
Seattle	4	16	Off market
Kansas City	4	16	3.00
Minneapolis	3½	16	3.42
Atlanta	3½	16	2.30
New Orleans	3	16	2.99
New Orleans	3½	16	3.42
New Orleans	4	16	3.85
Dallas	4	18	4.00
Baltimore	3½	16	3.80
Montreal	4	16	4.60
Detroit	3½	16	3.40

CONSTRUCTION MATERIALS

SAND AND GRAVEL—Price for cargo or carload lots is as follows, per cu.yd.:

	Gravel 1½ In. Current	Gravel 1½ In. One Yr. Ago	Gravel ¾ In. Current	Gravel ¾ In. One Yr. Ago	Sand Current	Sand One Yr. Ago
New York	$3.00	$2.00	$3.00	$2.00	$1.50	$1.25
Denver	2.00	1.60	1.80	1.60	1.60	1.25
Chicago	2.75	2.00	2.75	2.00	2.75	2.00
Kansas City	3.25	2.50	3.75	3.00	1.25†	1.00
St. Louis	1.65	1.78	1.70	1.82	1.70*	1.68
Seattle, per ton	1.25	1.20	1.25	1.25	1.25	1.05
Dallas	2.50	3.50	2.50	3.50	2.50	2.25
Minneapolis	2.00	1.25	....	1.35	1.25	.60
Cincinnati	....	....	1.50	....	1.45	1.35‡
San Francisco	1.50	1.15	1.50	1.15	1.50	1.00
Boston	3.50	1.60‡	3.00	1.65‡	2.75	....
New Orleans	3.60	2.40	....	2.40	1.85	1.20
Los Angeles	1.25	1.02	1.25	1.02	1.15	.70
Atlanta, per ton	3.12	2.25	....	....	1.62	1.15
Detroit	1.85*	2.50	1.85*	1.90	1.70*	2.50
Baltimore	1.40‡	1.54	1.60‡	1.60	.70	.65
Montreal, per ton	1.50‡	1.20	....	....	1.25‡	1.10

* Fine white sand, Pacific and Ottawa, per ton $6.
† Kaw River sand is $1.75 per yd. ‡ per ton.

CRUSHED STONE—Price for cargo or carload lots is as follows, per cu.yd.:

	1½ In. Current	1½ In. One Year Ago	¾ In. Current	¾ In. One Year Ago
New York	$1.90@2.00	$1.65@1.75	$2.15	$1.75@1.85
Chicago	2.75	2.00	2.75	2.00
St. Louis	2.00	1.50	2.00	1.50
Dallas	2.50	2.90	2.50	2.80
San Francisco	1.50	1.50	1.50	1.50
Boston	3.00*(del)	2.75	3.00 (del)	2.75
Minneapolis	2.25†	1.15	2.50†	1.25
Denver	....	....	....	1.60
Kansas City	2.35	2.25	2.35	2.35
Seattle (Del.)	3.50	2.00	3.50	2.00
Atlanta	3.25	2.55	3.50	2.65
Cincinnati	....	....	1.65	....
Los Angeles	1.60*	1.20	1.70*	1.12
Detroit	2.00	1.75	2.00*	1.75
Baltimore	1.80*	1.25	2.20*	1.50
Montreal	2.30*	1.90	2.55*	2.15

* Per ton. † Limestone; traprock, $1.60 and $1.80 per ton for 1½ and ¾-in.

CRUSHED SLAG—Price of crushed slag per net ton in carload lots:

	1½-In.	¾-In.	Roofing	Sand
Lebanon or Bethlehem, Pa	$1.00	$1.00	$2.50	$0.90
Easton, Pa	1.20	1.20	3.00	1.10
Buffalo, N. Y	1.25	1.00	2.00	1.00
East Canaan, Conn	1.25	1.35	3.50	1.10
Birmingham, Ala	1.25	1.25	2.05	1.00
Toledo, Ohio	1.50	1.50	.....	....

LIME—Warehouse prices:

	Hydrated per Ton Finished	Hydrated per Ton Common	Lump per 200-Lb Barrel Finished	Lump per 200-Lb Barrel Common
New York	$21.00	$20.00	$3.80*-atplant-$3.40*	
Kansas City	27.20	26.20	2.50	2.40
Chicago	....	....	....	1.65
St. Louis	27.00	21.00	....	2.75
Boston	27.50	25.25	3.70†	3.40†
Dallas	....	25.00	.....	2.50†
Cincinnati	17.20	16.20	.....	13.20‡
San Francisco	25.40	22.00	.....	2.25
Minneapolis	29.50	23.00	2.00	1.85
Denver	32.00	.....	1.05 (bu.)	..
Detroit	23.00	19.00	2.00†	1.80†
Seattle	30.00	.....	2.85†	.
Los Angeles	2.75†	2.20†	2.75†	2.00†
Baltimore	23.50 (East)	.....	....	13.00‡
Montreal	25.00	25.00	15.00‡	15.00‡
Atlanta	....	....	3.00†	2.75†
New Orleans	24.50	24.50	3.00	2.85

* 300-lb. barrels. †Per 180-lb. barrel. ‡ Per ton.

NOTE—Refund of 10c. per barrel with 25c per ton off on hydrated.

NATURAL CEMENT—Price to dealers for 500 bbl. or over, f. o. b., exclusive of bags:

	Current	One Year Ago
Minneapolis (Rosendale)	$3.00	$1.45
Kansas City (Ft. Scott)	1.60	1.50
New Orleans	3.36	2.52
Atlanta (Magnolia)	1.90	1.85
Cincinnati (Louisville)	2.85	1.35
Boston (Rosedale)	2.35	..

PORTLAND CEMENT—Current prices are for barrels in carload lots, *without* bags, to contractors:

	Current Without Bags	One Month Ago Without Bags	One Year Ago Without Bags
New York (del.)	$4.10	$4.10	$2.80
Jersey City (del.)	3.55	4.39	2.27
Boston	3.32	3.32	2.42
Chicago	2.35	2.35	2.00
Pittsburgh	2.42	2.42	2.05
Cleveland	2.73	2.73	2.32
Detroit	2.71	2.71	2.08
Indianapolis	2.61	2.57	2.27
Toledo	2.71	2.71	2.12
Milwaukee	2.59	2.59	2.11
Duluth	2.35	2.35	2.10
Peoria	2.63	2.63	2.12
Cedar Rapids	2.71	2.71	2.18
Davenport	2.67	2.67	2.14
St. Louis	3.45	3.00	2.20
San Francisco	3.09	3.09	2.43
New Orleans	4.60	5.00	2.36
Minneapolis	3.30	3.42	2.22
Denver	3.25	3.25	3.12
Kansas City	2.76	2.76	2.26
Seattle	3.12	3.12	2.68
Dallas	3.85	2.92	2.03
Atlanta	3.75	4.90	2.50
Cincinnati	2.85	2.85	2.35
Los Angeles	3.10	3.10	2.78
Baltimore (del)	4.59	4.59	2.90
Montreal (including bags)	3.00	3.00	2.50
Detroit	3.71	3.50	2.23

NOTE—Bag charge is generally 25c. each.

TRIANGLE MESH—Price per 100 sq.ft. in carload lots:

PLAIN 4-INCH by 4-INCH MESH

Style Number	Sectional Area Square Inches per Ft.	Width	Pittsburgh	New York*	Chicago†	St. Louis	Dallas	San Francisco
032	0.032		$1.24	$1.55	$0.98	$1.03	$1.13	$1.32
049	0.049		1.56	1.95	1.26	1.32	1.43	1.67
068	0.068		1.88	2.35	1.53	1.61	1.79	2.06
093	0.093		2.38	2.98	1.97	2.07	2.41	2.65
126	0.126		2.93	3.67	2.43	2.57	2.92	3.28
153	0.153		3.47	4.34	2.90	3.06	3.48	3.93
180	0.180		3.97	4.97	3.33	3.51	3.99	.....
245	0.245		5.21	6.52	4.40	4.64	5.27	.....
287	0.287		6.00	7.50	5.08	5.36	6.10	6.86
336	0.336		6.93	8.67	5.89	6.21	7.06	.....
395	0.395		8.02	10.03	6.83	7.20	8.19	.....
PAVING								
036P	0.036		$0.98	$1.23	$0.76	$0.79	$0.80	.....
053P	0.053		1.34	1.68	1.06	1.12	1.12	.....
072P	0.072		1.66	2.08	1.34	1.41	1.46	.....
097P	0.097		2.11	1.76	1.73	1.82	1.88	.....
049R	0.049		1.34	2.08	1.06	1.12	1.12	.....
067R	0.067		1.76	2.64	1.34	1.49	1.46	.....
089R	0.089		2.11	.....	1.73	1.82	1.88	.....

Made in 16-, 20-, 24-, 24-, 32-, 36-, 40-, 44-, 48-, 52- and 56-in. width in rolls 150-, 200- and 300-ft. lengths. Galvanized is about 10% higher.

Note—Triangle mesh again available in New York.

EXPANDED METAL LATH—Prices in carload lots per 100 yd. for painted are as follows:

Gage	Weight	New York‡ Current Carloads	New York‡ Current Less Carloads	Chicago	St. Louis	San Francisco	Dallas
27	233	$32.10	$32.20*	$33.60†	$35.00	$37.25	$32.75
26	250	33.45	33.65*	35.20†	36.00	.....	34.50
25	300	34.90	35.00*	36.90†	.....	40.50	36.75
24	340	36.50	36.65*	40.00†	39.00	46.25	39.25
22	450	39.60	39.80*	45.10†	.....	.....	43.30

* Delivered on job.
†Galvanized is $8 per 100 yd., additional.
***Note—Metal lath again available in New York.**

BARS, CONCRETE REINFORCING—Following quotations are per 100 lb.:

ROLLED FROM BILLETS

In.	Mill Pittsburgh	New York Current	Chicago	Dallas	San Francisco
¾ and larger	$2.35@$3.50	$3.63@$5.00	$3.48@$3.87	$3.87	$4.75 $5.30
⅝	2.40@3.50	3.68@5.00	3.53@3.92	3.92	4.80 5.35
½	2.45@3.50	3.73@5.00	3.58@3.97	3.97	4.95 5.40
⅜	2.60@3.50	3.88@5.00	3.63@4.12	4.12	5.00 5.55
¼	2.85@3.50	4.13@5.00	4.18@4.57	4.57	5.05 5.80

Warehouse, Uncut

Twisted bars cut to length take extra of 27½c. per 100 lb.

ROLLED FROM RAILS

	Chicago	St. Louis	Dallas		Chicago	St. Louis	Dallas
¾ in. and larger	$4.00	$4.00	$4.25	¾	$4.25	$4.25	.....
⅝	4.05	4.05	4.30	⅝			
½	4.10	4.10	.....	½			

BRICK—To contractors price per 1000 in cargo or carload lots is as follows:

	Common Current	Common One Month Ago	Common One Year Ago	Paving Block 3-inch	Paving Block 4-inch
New York (del)	$22.70	$22.70	.....	$57.20*	$63.30*
New Orleans	25.50	25.50	$19.00	....	....
Chicago	15.00	15.00	12.00	45.00	.
St. Louis, salmon	17.00†	17.00	12.00	.....	.....
Denver	15.00	15.00	14.00	.....	.....
Dallas	25.00	22.07	18.57	.....	.....
San Francisco	18.00	18.00	12.50	.....	44.38
Los Angeles	13.50	13.50	12.50	.....	.....
Boston	30.00	30.00	18.00	59.25*	66.25*
Minneapolis (del.)	24@26	24.00	14.50	.....	.....
Kansas City	22.00	22.00	16.00	.....	.....
Seattle	19.00	17.00	15.00	48.00	53.50
Cincinnati	24.00	24.00	17.00	.....	.....
Montreal (del.)	20.00	20.00	15.00	.....	.....
Detroit	20.00–22.00	22.00	17.25	40.00	48.00
Baltimore (del.)	20.00–25.00	22.50	18.00	.....	44.00‡
Atlanta	20.00	24.00	.....	.....	.....

*For paving blocks 3½x8½x3 and 3½x8½x4 respectively. †Hard brick $20.50 in St. Louis. ‡Vitrified, f. o. b. plant, Baltimore.

HOLLOW TILE—Price per block in carload lots for hollow building tile:

	New York Current on Trucks	New York One Year Ago	Chicago	St. Louis	San Francisco	Factory Perth Amboy N. J.
4x12x12	$0.2444*	$0.11475	$0.1147	$0.145	$.145	
6x12x12	.3259*	.153	.2021	.	.21	
8x12x12	.4345*	.204	.2425	.245	.29	.4358
10x12x12	.....	.....	.3032	...	.....	.5447
12x12x12	.....	.....	.3638	.36	.....	.6537

*Partition title. Less 5% for cash, 15 days.

	4x12x12	8x12x12	12x12x12
Boston	$0.195	$0.372	$0.496
Minneapolis	.1192	.2086	.3278
Cincinnati	.125	.2186	.3286
Kansas City	No prices obtainable		
Denver	Quotations withdrawn		
Seattle	.13	.175	.30
Los Angeles	.10	.175	....
New Orleans	.30	.40	.60
Detroit	.15	.27	.39
Montreal	.22	.30	.36
Baltimore	.2225	.4050	.7260
Atlanta	.142	.237	.....

STRUCTURAL MATERIAL—Following are base prices f.o.b. mill, Pittsburgh, together with quotations per 100 lb. from warehouses at places named:

	Mill Pittsburgh	New York Current	New York 1 Yr. Ago	St. Louis	Chicago	San Francisco
Beams, 3 to 15 in.	$2.45@3.10	$4.30	$3.47	$4.04	$3.97	$6.00
Channels, 3 to 15 in.	2.45@3.10	4.30	3.47	4.04	3.97	6.00
Angles, 3 to 6 in., ¼ in. thick	2.45@3.10	4.30	3.47	4.04	3.97	6.00
Tees, 3 in. and larger	2.45@3.75	4.35	3.52	4.09	4.02	6.00
Plates	2.65@4.00	4.50	3.67	4.24	4.17	6.30

RIVETS—The following quotations are per 100 lb.:

	Mill Pittsburgh	New York Current	New York One Yr. Ago	Warehouse Chicago	Warehouse St. Louis	Warehouse San Francisco	Warehouse Dallas
STRUCTURAL							
¾ in. and larger	$4.50	$6.11		$5.00	$5.69	$7.05	$7.50
CONE HEAD BOILER							
¾ in. and larger	$4.60	7.10	$4.82	5.10	5.79	7.15	7.50
¾ and 11/16	4.75	7.25	4.97	5.25	5.94	7.40	7.50
½ and 9/16	5.00	7.50	5.32	5.60	6.19	7.65	7.75

Lengths shorter than 1 in. take an extra of 50c. Lengths between 1 in. and 2 in. take an extra of 25c.

NAILS—The following quotations are per keg from warehouse:

	Mill Pittsburgh	New York	Chicago	San Francisco	Dallas	Montreal
Wire	$4.25	$8.50	$4.45	$6.45	$6.90	$4.95
Cut	....	10.00	8.00@11.00	8.95	6.40	5.00

PREPARED ROOFINGS—Standard grade rubbered surface, complete with nails and cement, costs per square as follows at maufacturing points:

	New York 1-Ply c.l.	New York 2-Ply l.c.l.	New York 3-Ply c.l.	Philadelphia 1-Ply c.l.	Philadelphia 2-Ply l.c.l.	Philadelphia 3-Ply c.l.
No. 1 grade	$2.50	$3.00	$3.55	$2.40	$2.90	$3.45
No. 2 grade	2.25	2.70	3.20	2.15	2.60	3.10

Slate-surfaced roofing (red and green) in rolls of 108 sq.ft. costs $4.50 per roll in carload lots and $4.75 for smaller quantities.

Shingles, red and green slate finish, cost $10.00 per square in earloads; $10.25 in smaller quantities, in Philadelphia.

ROOFING MATERIALS—Prices per ton f.o.b. New York and Chicago:

Tar felt (14 lb. per square of 100 sq.ft.) per roll	$3.55
Tar pitch (in 400-lb. bbl.) per 100 lb.	2.25
Asphalt pitch (in barrels) per ton	56.50
Asphalt felt (light) per ton	132.00
Asphalt felt (heavy) per ton	138.00

SHEETS—Quotations are in cents per pound in various cities from warehouse also the base quotations from mill:

Blue Annealed	Large Mill Lots Pittsburgh	St. Louis	Chicago	San Francisco	New York Current	New York One Yr. Ago
No. 10	$3.55@$7.50	$7.09	$7.13	$8.65	$7.00@$8.00	$4.82
No. 12	3.60@7.55	7.09	7.18	8.70	7.05@8.05	4.87
No. 14	3.65@7.60	7.09	7.23	8.75	7.10@8.10	4.92
No. 16	3.75@7.70	7.09	7.28	8.85	7.20@8.20	5.02
Black						
*Nos. 18 and 20	4.15@8.30	8.10	7.90	10.60	8.41@9.80	5.80
*Nos. 22 and 24	4.20@8.35	8.10	7.95	10.65	8.46@9.85	5.85
*No. 26	4.25@8.40	8.10	8.00	10.70	8.51@9.90	5.90
*No. 28	4.35@8.50	8.10	8.10	10.80	8.61@10.00	6.00
Galvanized						
No. 10	4.70@8.50	9.60	8.60	.....	8.91@11.50	6.25
No. 12	4.80@8.60	9.60	8.70	11.35	9.01@11.50	6.30
No. 14	4.80@8.60	9.60	8.70	11.35	9.01@11.50	6.35
Nos. 18 and 20	5.10@8.90	9.60	9.00	11.65	9.26@11.90	6.65
Nos. 22 and 24	5.25@9.05	9.60	9.15	11.80	9.41@12.05	6.80
*No. 26	5.40@9.20	9.60	9.30	11.95	9.56@12.20	6.95
*No. 28	5.70@9.50	9.60	9.60	12.25	9.86@12.50	7.25

*For painted corrugated sheets add 30c. per 1000 lb. for 5 to 28 gage; 25c. for 19 to 24 gages; for galvanized corrugated sheets add 15c., all gages.

LINSEED OIL—These prices are per gallon:

	New York Current	New York One Year Ago	Chicago Current	Chicago One Year Ago
Raw in barrel (5 bbl.)	$1.15	$1.75	$1.25	$1.92
5-gal. cans	1.30	1.90	1.50	2.07

WHITE AND RED LEAD—Base price per pound:

	Red Current Dry	Red Current In Oil	Red 1 Year Ago Dry	Red 1 Year Ago In Oil	White Current Dry and In Oil	White 1 Y
100-lb. keg	15.50	17.00	13.00	14.50	15.50	1
25 and 50-lb. kegs	15.75	17.25	13.25	14.75	15.75	1
12½-lb. keg	16.00	17.50	13.50	15.00	16.00	1
5-lb. cans	18.50	20.00	15.00	16.50	18.50	1
1-lb. cans	20.50	22.00	16.00	17.50	20.50	1

500 lb. lots less 10% discount; 2000 lb. lots less 10-2½% discount.

LUMBER

San Francisco—Prices of rough Douglas fir No. 1 common, in more than carload lots.

Lumber Prices in Yards at San Francisco

	6-8-12 and 14 Ft.	10-16-18 and 20 Ft.	22 and 24 Ft.	25 to 32 Ft.
3x3 and 4	$33.00	$33.50	$34.50	$36.50
3x6 and 8	34.00	34.50	35.50	37.50
4x4-6 and 8	34.50	35.50	36.50	38.50
3x10 and 12	34.50	35.50	36.50	38.50
3x14	35.00	36.00	37.00	39.00
4x10 and 12	34.50	35.50	36.50	38.50
4x14	35.50	36.50	37.50	39.50

	24 Ft. and Under	25 to 32 Ft.	33 to 40 Ft.
6x10	$34.00	$36.00	$37.00
6x14	35.50	37.50	38.00
8x10	34.00	36.00	37.00
8x14	35.50	37.50	38.00

New York, Chicago and St. Louis

	Southern Pine New York* 20 Ft. and Under	Southern Pine New York* 22-24 Ft.	Southern Pine Chicago 20 Ft. and Under	Southern Pine Chicago 22-24 Ft.	Yellow Pine St. Louis 20 Ft. and Under	Yellow Pine St. Louis 22-24 Ft.
3x 4 to 8x8	$55.00	$56.00	$60.00	$61.00	46.50@56.75	48.25@58.00
3x10 to 10x10	60.00	61.00	63.00	64.00	48.75@60.75	50.00@62.00
3x12 to 12x12	66.00	67.00	65.00	66.00	53.25@65.25	54.50@66.50
3x14 to 14x14	71.00	72.00	68.00	69.00	62.00@73.75	63.00@75.00
3x16 to 16x16	78.00	79.00	75.00	76.00	68.00@80.00	69.00@81.00
3x18 to 18x18	90.00	91.00	80.00	81.00	.....	.....
4x20 to 20x20	95.00	96.00	85.00	86.00	.....	.....

*Prices from Lumbermen's Bureau.

Over 24 ft.—Add $1 for each additional 2 ft. in length up to 40 ft for sizes 12 x 12 and under, for sizes over 12 x 12 add $2. for merchantable add $2 to sizes 10 x 10 and under. For prime add $2 to the price of merchantable for all sizes.

Other Cities

	8 x 8-In. x 20-Ft. and Under P.	8 x 8-In. x 20-Ft. and Under Fir	8 x 8-In. x 20-Ft. and Under Hemlock	8 x 8-In. x 20-Ft. and Under Spruce	12 x 12-In. 20 Ft. and Under P.	12 x 12-In. 20 Ft. and Under Fir
Boston	$73.00	$70.00	.....	$65.00	$85.00	$75.00
Kansas City	51.00	51.25	$51.25	51.25	60.00	51.25
Seattle	.....	32.00	.....	.....	.....	32.00
New Orleans	49.00	.....	.....	.....	48.00	.....
Baltimore	72.50	.....	.....	.....	82.50	.....
Cincinnati	45.00	50.00	50.00	.....	55.00	55.00
Montreal	87.00	87.00	70.00	85.00	79.00	110.00
Los Angeles †	.....	57.00	.....	.....	.....	59.00
Detroit	57.00	.....	.....	.....	67.25	67.25
Denver	.....	44.75	.....	.....	.....	44.75
Minneapolis	.....	46.00	52.00	.....	.....	46.00
Atlanta	45.00	.....	.....	.....	70.00	.....

	1-In. Rough, 10 In. x 16 Ft. and Under P.	1-In. Rough, 10 In. x 16 Ft. and Under Fir	1-In. Rough, 10 In. x 16 Ft. and Under Hemlock	2-In. T. and Gr. 10 In. x 16 Ft. P.	2-In. T. and Gr. 10 In. x 16 Ft. Fir
Boston	$110.00	.....	$52.00	$105.00	$85.00
Kansas City	102.00	106.50	106.50	113.00	112.75
Seattle	.....	37.50	.....	.....	38.50
New Orleans	75.00	.....	.....	50.00	.....
Baltimore	52.50@60	.....	.....	54@60	.....
Cincinnati	50.00	55.00	50.00	45.00	50.00
Montreal	80.00	80.00	70.00	85.00	85.00
Los Angeles	.....	58.00	.....	.....	.....
Detroit	41.00	.....	41.00	.....	44.00
Denver	.....	37.75	.....	.....	38.25
Minneapolis	.....	40.00	48.25	.....	35.75
Atlanta	50.00	.....	.....	45.00	.....

* Montreal—Up to 32 ft.; over which, $3.00 per M. increase up to 30 ft.

† Base price, 2 x 3's and 2 x 4's, 8 to 14 ft., is $54.00

Detroit—4 x 4 x 12, fir D, $50; rough fir, $53; 2 x 6 x 6, hemlock D sides, $50 2 x 12 x 18, rough fir, $52.50; 2 x 12 x 12, rough fir, $52; 2 x 4 x 16 fir D, $50

FREIGHT RATES

On finished steel products in the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, flat sheets (except planished), chains, etc., the following freight rates are effective in cents per 100 lb., in carloads of 36,000 lb.:

Boston	$0.41½	New Orleans	$0.51½
Buffalo	.29½	New York	.38
Chicago	.38	Pacific Coast (all rail)	1.66½†
Cincinnati	.33	Philadelphia	.35
Cleveland	.24	St. Louis	.47½
Denver	1.35*	St. Paul	.69½
Kansas City	.81½	Detroit	.33
		Baltimore	.33½

Note—Add 3% transportation tax. * Minimum carload, 40,000 lb.
† Minimum carload, 50,000 lb., structural steel only.

CONTRACTORS' SUPPLIES

STEEL SHEET PILING—The following price is base per 100 lb. f. o. b. Pittsburgh, with a comparison of a month and a year ago:

Current	One Month Ago	One Year Ago
$4.00@$4.50	$4.00@5.00	$2.55

WIRE ROPE—Discounts from list price on regular grades of bright and galvanized are as follows:

	New York
Hercules red strand, all constructions	20%
Patent flattened strand, special and cast steel	20%
Patent flattened strand, iron rope	5%
Plow steel round strand rope	30%
Special steel round strand rope	30%
Cast steel round strand rope	22½%
Iron strand and iron tiller	5%
Galvanized iron rigging and guy rope	+12%

San Francisco: Galvanized Iron Rigging and Guy Ropes, +17½%; Bright Plow, 25% off.

Chicago, + 10 on galvanized, 22½ — 2½ off on bright.

Western and California territory, 20%; plow steel, 22½% galvanized iron rigging and guy rope.

Montana, Idaho and Arizona, 15%; plow steel, 27½% galvanized iron rigging and guy rope.

MANILA ROPE—For rope smaller than ⅝-in. the price is ½ to 2c. extra; while for quantities amounting to less than 600 ft. there is an extra charge of 1c. The number of feet per pound for the various sizes is as follows: ⅜-in., 8 ft., ½-in., 6; ⅝-in., 4½; 1-in., 3½; 1¼-in., 2 ft. 10 in.; 1½-in., 2 ft. 4 in. Following is price per pound for ⅝-in. and larger, in 1200-ft. coils:

Boston	$0.32½	Kansas City	$0.30½
New York	.29	New Orleans	.28½
Chicago	.27½	Los Angeles	.31
Minneapolis	.29	Seattle	.28
San Francisco	.27	St. Louis	.26½
Atlanta	.30	Montreal	.35½
Denver	.30	Detroit	.26
Cincinnati	.35	Baltimore	.27½

EXPLOSIVES—Price per pound of dynamite in small lots and price per 25 lb. keg for black powder.

	Low Freezing 20%	Gelatin 40%	Gelatin 60%	Gelatin 80%	Black Powder
New York	.....	$0.33½	$0.36½	.....	$2.30
Boston	.....	.28	.31	$.34	
Kansas City	.2475	.27	.30	.34	2.40
Seattle	.18	.20½	.22½	.29½	2.60
Chicago	.2175	.2525	.2975	.34	2.45
Minneapolis	.2272	.2629	.2935	.....	2.90
St. Louis	.25	.285	.315	35.75	2.60
Denver	.2250	.26	.29	33.25	2.80
Dallas	.265*	275	.3025	....	2.60
Los Angeles	.22	.27	.31	.	2.95
Atlanta	.2575	.2925	.3225	.3650	
Baltimore	.2525	.2875	.3175	.36	2.10
Cincinnati	.2275	.2525	.2725	.....	2.30
Montreal	.30	.32	.37	.38	4.10
New Orleans	.2650	.295	.325	.3925	2.90

* 30 Per Cent.

POLES — For spruce and plain pine poles, delivered New York, the price is as follows:

Spruce 10-in. butts, 5-in. tops, length 20-30 ft.	$8.50
Spruce 12-in. butts, 6-in. tops, length 30-40 ft.	10.50
Pine 12-in. butts, 6-in. tops, length 41-50 ft.	13.75
Pine 14-in. butts, 6-in. tops, length 51-60 ft.	22.50
Pine 14-in. butts, 6-in. tops, length 61-71 ft.	25.25

	Dallas
6-in. x 20-ft.	$4.60
6-in. x 30-ft.	7.10
8-in. x 30-ft.	8.45
8-in. x 35-ft.	10.38

OLD MATERIAL—The prices following are per gross ton paid to dealers and producers in New York. In Chicago and St. Louis the quotations are per net ton and cover delivery at the buyer's works, including freight transfer charges.

	New York	Chicago	St. Louis
No. 1 railroad wrought	$23.00	23.50@24.00	$24.00
Stove plate	24.00	24.50	26.00
No. 1 machinery cast	28.50	28.00	22.00
Machine shop turnings	13.50	8.50	10.00
Cast borings	17.00	11.00	13.00
Railroad malleable cast	23.00	22.50	24.00
Re-rolling rails	30.00	30.50@31.50	35.00
Relaying rails	56.00	57.50@62.50	45@50

SHIP SPIKES—Current prices per 100 lb.

	San Francisco		Seattle
In.	Galv.	Black	Black
¾	$9.20	$8.50	$8.55
⅞	8.75	6.75	8.25
1	8.60	6.60	8.30

Pittsburgh base, $4.75@$5.00 per 100 lb.

LABOR RATES AND CONDITIONS THROUGHOUT THE COUNTRY

S means scarce; E, enough; P, plentiful

Cities	Bricklayers	Carpenters	Hoisting Engineers	Hod Carriers	Pile Drivers	Structural Iron Workers	Common Labor	Remarks
Atlanta	$1.35E	$0.90E	$1.00E	$0.35E	....	....	$0.35E	Atlanta—Plenty of work.
Baltimore	1.00E	.80–90E	.87½E	.46–.54E	$0.74E	$1.00E	.35–.45E	Baltimore—Increasing supply of labor.
Boston	1.10P	1.00P	1.15@1.25P	.75P	1.25P	1.15@1.25P	.67½@.70P	Boston—Labor supply sufficient.
Cincinnati	1.25S	90E	.75E	.70E	.....	.87½E	.60S	Cincinnati—Common labor scarce.
Chicago	1.25	1.25	.....	.....	.....	1.25	1.00	Chicago—Labor plentiful but independent. Contractors report increased efficiency.
Cleveland	1.00S	.90S	1.00E	.57½E	.80E	1.00E	.57½E	
Dallas	1.25S	1.00P	1.00E	.60E	1.00E	1.25S	.50@1.00P	Dallas—All labor plentiful.
Denver	1.25E	1.16½E	1.16½@1.18¾E	.75@.81¼E	.....	1.15½E	.50@.56¼	Denver—No strikes. Labor supply not excessive.
Detroit	1.25P	.85@1.00P	1.10P	.70E	1.10P	1.25E	.65E	Detroit—Labor plentiful in all trades. Contractors report greater efficiency on part of men.
Kansas City	1.12½	1.00	1.00	.90	1.00	1.10	.75	
Los Angeles	1.25P	.87½P	.87½P	1.00P	.87½P	.87½P	.56¼–.62½E	Los Angeles—Rates shown are union; non-union a little less; but union scale prevails generally.
Minneapolis	1.25	1.00P	1.00	.75	.....	1.00	.60	Minneapolis—Conditions normal. Plasterers now receive $1.12½@$1.25.
Montreal	1.00	.80–.85S	.65S	.50@.60S	.50	.50–.65	.47½–.55S	Montreal—Common labor scarce.
New Orleans	1.00E	.95E	1.00E	.50@.60E	1.00E	1.00E	.40S	New Orleans—Building trade stagnant, owing to high cost of labor and materials.
New York	1.25	1.12½	1.25	.87½	1.12½	1.12½	.75–.80	New York—Agreement of Nov. 20, 1919, was modified as shown, effective May 1, 1920. Excavators, 75c.; Concrete workers, 81¼c.
Pittsburgh	1.50P	1.25P	1.12½P	1.00P	1.00P	1.25S	.80E	Pittsburgh—Conditions normal.
St. Louis	1.25E	1.25E	1.25E	.85E	1.00P	1.25E	.52–.75E	St. Louis—Hoisting engines receive $1.37½ on double hoist. Plaster hod carriers receive 94¼c. Labor situation easy in all building trades.
San Francisco	1.25E	1.12½E	1.12½E	.0E	1.12½E	1.12½E	.81¼E	San Francisco—Sufficient labor of the trades shown, but there is a scarcity of concrete workers.
Seattle	1.25	1.00	1.00@1.12	.....	1.00	1.00	.75E	Seattle—Not much building construction in prospect.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 8	Charlotte, Mich.	Oct. 28
Nov. 9	Liberal, Kan.	Nov. 4
Nov. 9	Phila., Pa.	Nov. 4
Nov. 16	Oxford, Mich.	Oct. 21
Nov. 16	Oxford, Mich.	Oct. 28

SEWERS

Nov. 6	Chicopee, Mass.	Nov. 4
Nov. 8	Syracuse, N. Y.	Oct. 21
Nov. 8	Chaldron, Neb.	Nov. 4
Nov. 9	Rayville, La.	Oct. 21
Nov. 10	Akron, O.	Oct. 28
	Adv. Oct. 28 and Nov. 4.	
Nov. 12	Crystal Lake, Ill.	Nov. 4
	Adv. Nov. 4.	
Nov. 15	Chardon, Neb.	Nov. 4
Nov. 16	Paterson, N. J.	Nov. 4

BRIDGES

Nov. 8	Jefferson City, Mo.	Oct. 28
Nov. 9	Marysville, Kan.	Nov. 4
Nov. 10	Long Beach, N. Y.	Oct. 28
	Adv. Oct. 21 to Nov. 4.	
Nov. 10	Bad Axe, Mich.	Oct. 28
Nov. 10	Brantford, Ont.	Nov. 4
Nov. 10	Michigan	Nov. 4
Nov. 11	Ft. Worth, Tex.	Nov. 4
Nov. 12	Michigan	Nov. 4
Nov. 15	Michigan	Nov. 4
Nov. 22	Alamo, Ga.	Nov. 4
Nov. 22	Victoria, B. C.	Nov. 4
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Nov. 8	Arcadia, La.	Oct. 21
Nov. 8	Anahuac, Tex.	Oct. 21
Nov. 8	Pittsboro, N. C.	Oct. 21
Nov. 8	Newberry, S. C.	Oct. 28
Nov. 8	Waxahachie, Tex.	Oct. 28
Nov. 8	San Marcos, Tex.	Oct. 28
Nov. 8	San Diego, Cal.	Nov. 4
Nov. 8	Chaldron, Neb.	Nov. 4
Nov. 9	Maryland	Oct. 28
	Adv. Oct. 28 and Nov. 4.	
Nov. 9	Michigan	Oct. 28
Nov. 9	Jackson, Minn.	Nov. 4
Nov. 10	Alabama	Oct. 21
Nov. 10	St. George, S. I., N. Y.	Nov. 4
Nov. 10	Brooklyn, N. Y.	Nov. 4
Nov. 11	Fredericksburg, Tex.	Oct. 21
Nov. 11	Arizona	Oct. 28
Nov. 11	Ft. Worth, Tex.	Nov. 4
Nov. 11	St. Albans, W. Va.	Nov. 4
Nov. 12	Salina, Kans.	Oct. 21
Nov. 12	Birmingham, Ala.	Oct. 21
Nov. 12	Ohio	Nov. 4
Nov. 12	Missouri	Nov. 4
Nov. 13	Bay City, Tex.	Oct. 28
Nov. 13	Michigan	Nov. 4
Nov. 15	Oskaloosa, Kan.	Oct. 21
Nov. 15	Indiana	Oct. 28
Nov. 15	Mantorville, Minn.	Nov. 4
Nov. 15	Boston, Tex.	Nov. 4
Nov. 16	Lyon, Kan.	Oct. 14
Nov. 16	St. Louis, Mo.	Oct. 28
Nov. 16	Crystal Falls, Mich.	Nov. 4
Nov. 16	Lake City, Mich.	Nov. 4
Nov. 16	Ontario	Nov. 4
Nov. 17	Providence, R. I.	Oct. 28
	Adv. Oct. 28 and Nov. 4	
Nov. 21	Joliett	
Nov. 23	Leavenworth, Kan.	Nov. 4
Nov. 27	Missouri	Nov. 4
Nov. 29	Topeka, Kan.	Nov. 4
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 5	Colorado Springs, Col.	Oct. 21

EXCAVATION AND DREDGING

Nov. 9	Norwalk, O.	Oct. 21

INDUSTRIAL WORKS

Nov. 9	Phila., Pa.	Nov. 4
Nov. 11	New York, N. Y.	Nov. 4
Dec. 1	Metuchen, N. J.	Oct. 28

BUILDINGS

Bids Close		See Eng. News-Record
Nov. 8	Tulsa, Okla.	Oct. 28
Nov. 9	Detroit, Mich.	Oct. 28
Nov. 10	Bethlehem, Pa.	Nov. 4
Nov. 11	Long Prairie, Minn.	Nov. 4
Nov. 12	Pocahontas, Ia.	Oct. 28
Nov. 13	Bedford, O.	Oct. 28
Nov. 15	Baltimore, Md.	Oct. 28
Nov. 15	Enid, Okla.	Oct. 28
Nov. 16	Shelby, Ia.	Oct. 28
Nov. 20	Duluth, Minn.	Nov. 4
Nov. 22	Buffalo, N. Y.	Oct. 28
Nov. 24	Cleveland Heights (Warrensville P. O.), O.	Nov. 4
Dec. 6	Ossining, N. Y.	Oct. 21
Dec. 10	Brooklyn, N. Y.	Oct. 21
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4

FEDERAL GOVERNMENT WORK

Nov. 5	Steel Barges—Vicksburg, Miss.	Oct. 14
	Adv. Oct. 14 to Nov. 4.	
Nov. 8	Post Office—Front Royal, Va.	Oct. 21
Nov. 9	Loading Shed—Bloomington, Ill.	Oct. 28
Nov. 9	Electric Lighting System—Phila., Pa.	Oct. 28
	Adv. Oct. 28 and Nov. 4.	
Nov. 10	Mezzanine Floor—Indianapolis, Ind.	Oct. 28
Nov. 10	Pumping Facilities—Wash. D. C.	Oct. 14
Nov. 10	Centrifugal Pumps, etc. —Wash., D. C.	Oct. 28
	Adv. Oct. 21 to Nov. 4.	
Nov. 10	Electric Traveling Bridge Crane—Spec. 4250—New York, N. Y.	Oct. 28
Nov. 10	Steam Locomotive Crane —Spec. 4263—South Boston P. O., Mass.	Oct. 28
Nov. 11	Conduit, etc.—Wash., D. C.	Oct. 21
Nov. 15	Marine Hospital—Phila. Pa.	Oct. 21
Nov. 15	Extending Mailing Vestibule, etc.—Akron, O.	Oct. 21
Nov. 16	Extension to Mailing Vestibule—Portsmouth, O.	Oct. 28
Nov. 16	Mezzanine Floors, etc. —Allentown, Pa.	Nov. 4
	Adv. Nov. 4.	
Nov. 17	Marine Railway—Spec. 4254 —Pearl Harbor, H. T.	Oct. 14
Nov. 17	Nurses Quarters—Spec. 4293 —Puget Sound, Wash.	Oct. 28
Nov. 17	Ordnance Buildings—Spec. 4168—Pearl Harbor, H. T.	Oct. 14
Nov. 17	Remodeling Post Office and Court House—Sacramento, Cal.	Oct. 21
Nov. 17	Alterations and Additions to Main Building, etc.—Spec. 4273—Chelsea, Mass.	Nov. 4
Nov. 18	Earthwork—St. Louis, Mo.	Oct. 21
	Adv. Oct. 21 to Nov. 4.	
Nov. 18	Post Office—Athens, Tenn.	Oct. 28
Nov. 19	Altering Post Office and Custom House—Oswego, N. Y.	Oct. 28
Nov. 24	Quartermasters Storehouses Spec. 4280—San Diego, Cal.	Nov. 4
Nov. 24	Redredging — Galveston, Tex.	Nov. 4
	Adv. Oct. 28 and Nov. 4.	
Dec. 1	Ordnance Buildings—Spec. 4168—Kuahua, H. T.	Nov. 4

MISCELLANEOUS

Nov. 9	Power Plant Equipment — Michigan City, Ind.	Oct. 28
Nov. 9	Refrigerating Apparatus—Sonyea, N. Y.	Nov. 4
	Adv. Nov. 4.	
Nov. 12	Pump, etc.—Albany, Wis.	Nov. 4
Nov. 16	Head Gates—Baldwinsville, N. Y.	Oct. 21
	Adv. Oct. 21 to Nov. 4.	
Nov. 16	Dockwall—Buffalo, N. Y.	Oct. 21
Nov. 16	Arena—Toronto, Ont.	Nov. 4
Nov. 17	Laundry Equipment—Hudson, N. Y.	Nov. 4
	Adv. Nov. 4.	
Nov. 22	Lock and Dam—Chicago, Ill.	Oct. 21
	Adv. Oct. 21 to Nov. 4.	
Nov. 23	Heating, etc. —Ossining, N. Y.	Oct. 28
	Adv. Oct. 28 and Nov. 4.	

Where name of official is not given, inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

W. Va., Wheeling—City having surveys made by Chester & Fleming, engrs., Frick Bank Bldg., Pittsburgh, Pa., for chemical-mechanical filtration system. Noted Oct. 10, 1918.

O., Idlewood (Warrensville P. O.)—See "Sewers."

Mo., Kansas City—City having plans prepared for waterworks system. About $[illegible]000,000. Fuller & McClintock, 170 Broadway, New York City, engrs.

Tex., Yorktown—City plans to improve waterworks and build $15,000 tower and stand pipe. Address, Mayor.

Ore., Burns—City had plans prepared by L. C. Kelsey, engr., Portland, and Nampa, Idaho, for constructing waterwoks system. About $126,064. Noted June 17.

Ore., The Dalles—City retained L. C. Kelsey, engr., Portland, and Nampa, Idaho, to prepare plans for increasing present water supply.

Ont., St. Thomas—City plans to build rein.-con. storage dam for waterworks system. About $250,000. W. S. Lea, 10 Cathcart St., Montreal, Que., engr.

Ont., York—Twp. plans to build 250,000 gal. elevated steel water tank. About $30,000. F. Barber, 40 Jarvis St., Toronto, engr.

BIDS DESIRED

Pa., Phila. — Until Nov. 9, by F. H. Craven, dir. Dept. Pub. Wks., Room 216, City Hall, laying 6-12 in. water pipe, Contr. 429; furnishing and delivering 6-12 in. water pipe, Contr. 430; laying 48 in. water pipe in West Phila., Contr. 431; chlorine apparatus, Contr. 432; special castings for Queen Lane pumping sta., Contr. 433; steam flow meters, Contr. 434; superheaters, Contr. 435; boiler feed pumps, Contr. 436; electric generator, Contr. 437.

Kan., Liberal—Until Nov. 9, by City Council, building 18 x 300 ft. well, 2 centrifugal pumps for 365 ft. head, direct connected 75 hp. motors and 2 tile pump houses and steel towers, work involves 20,000 ft. 4 in. c.i. pipe. About $98,000. Ruckel Eng. Co., Hutchinson, engrs.

Ont., Toronto — City receiving bids for laying and jointing 3,600 ft. 24 in. c.i. water mains. Pipe to be supplied by city; lead and other materials by contractor. About $15,000. R. C. Harris, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. J., Newark—North Jersey Dist. Water Supply Comn., 20 Clinton St., received bids Oct. 28, building portion of Wanaque Dam, from Rollin Constr. Corp., 90 West St., New York City, $1,421,227. Work involves 44,000 cu.yd. earth excav. sloped for core-wall, at $1.14 per cu.yd., 32,000 cu.yd. core-wall trench above elevation 150 ft., $7.20, 3,000 cu.yd. below elevation 150 ft., $12.67, 4,500 cu.yd. earth excav., general, $2.54, 7,000 cu.yd. rock excav. by specific methods, $8.70, rock excav., general, $6.33, 8,000 cu.yd. clay puddle, $6.60, 22,000 cu.yd. refill and embankment, impervious earth, $2.54, general, $1.27, 46,000 bbl. cement, $3.16, 28,500 cu.yd. concrete, $9, furnishing 1,000 ton steel sheet piling, $117.50, driving 125,000 sq.ft. steel sheet piling, $0.76, 1,500 lin.ft. vitr. pipe, $0.63, etc.; W. H. Gahagan, Inc., 147 Remsen St., Brooklyn, price on (a) Class 1 constr., ($1,124,150, (b) 4% bid fee, $44,966, (c) Class 2 constr., $250,000, (d) 4% bid fee, $10,000, total, $1,429,116; C. F. MacEvoy and Linde & Griffith, 4th Ave., Newark, (a) $1,124,150, (b) $44,966, (c) $250,000, (d) $10,000, total $1,429,116. Noted Oct. 7.

N. J., Ventnor City—Common Council received bids Oct. 25, altering and building additions to waterworks system, from M. B. Markland, $125,700; Smithe, Letzeus & Seamen, $159,610; W. Beaumont, $158,[illegible]. Noted Oct. 7.

★Tex., Dallas—City let contract furnishing and installing centrifugal water pump with 25,000,000 gal. daily capacity, to Jones & Allinger, Dallas. About $82,000. Noted Sept. 9.

Sewers

PROPOSED WORK

Conn., New Britain—City plans to build vitr. sewers in Lorraine St. About $15,000. J. D. Williams, city engr.

Tex., Dallas — City soon receives bids building sanitary sewers in Parkview Addition. About $25,000. Former bids rejected. G. D. Fairtrace, city engr.

Tex., Yorktown—City plans to build sewerage system. Address Mayor.

Idaho, Filer — City had plans prepared by L. C. Kelsey, engr., Nampa, for sewerage system. About $117,478.

Ore., Burns—City had plans prepared by L. C. Kelsey, engr., Portland, and Nampa, Idaho, for constructing sewerage system. About $150,989. Noted June 17.

Cal., Selma—City plans to build outfall sewer and 3 drainage laterals. Bonds for $90,000 voted for project. J. S. Bates, Powell Bldg., Fresno, engr.

Cal., Watts—City plans to build main sewerage system and sewage disposal plant. About $120,000. Koebig & Koebig, $41 Title Insurance Bldg., Los Angeles, consult. engrs.

Ont., London—City having plans prepared for sewerage system in connection with exhibition grounds. Work involves 8-12 in. vitr. tile pipe. About $18,000. H. A. Brazier, city, engr.

BIDS DESIRED

Mass., Chicopee—Until Nov. 6, by F. P. Cobb, city engr., completing Willimansett Sewer in McKinstry Ave and Meadow Rd., segmental block. Cost to exceed $25,000.

N. J., Paterson—Until Nov. 16, by J. R. Van Duyne, ch. engr., Passaic Valley Sewerage Comn., 128 Market St., Newark, building portion of Sect. 21 North, Prospect St. Branch Sewer, involving 720 lin.ft. earth excav. and refilling for 16 in. c.i. pipe, 10 cu.yd. rock excav. in trench, 70 cu.yd. concrete masonry, 20 cu.yd. brick masonry, 705 lin.ft. c.i. pipes and specials, etc. Comrs. to furnish c.i. pipe.

Ill., Crystal Lake—Until Nov. 12, by Bd. Local Impvts., building sewerage system, to include automatic sewage lift and sewage purification plant. Wells Eng. Co., Aurora, engrs.; advertised in this issue.

Wis., Drummond—See "Miscellaneous."

Kan., Leavenworth—Until Nov. 23 by Leavenworth Co., grading, building culverts and bridges on 12.64 mi. Fort to Fort Highway, Project 13, D. E. F., 18 ft. wide. About $400,000. L. C. Clarke, Leavenworth, engr.

Kan., Topeka—Until Nov. 29, by Shawnee Co., grading and building culverts on 7.865 mi. Golden Belt, (Upper Silver Lake), Project 58, 18 ft. wide. About $70,000. A. C. Logerwall, Topeka, engr.

Neb., Chadron—Until Nov. 8, by City Council, building 7,000 ft. storm sewers in Impvt. Dist 2 and 3. R. D. Salisbury Co., 1600 Downing St., Denver, Col., engr.

Neb., Chadron—Until Nov. 15 by city, building complete sewage disposal plant, septic tank and sand filler, etc. About $50,000. R. D. Salisbury, 1600 Downing St., Denver, Col., engr. Noted Oct. 7.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. J., Montclair—Bd. Comrs. received low bid Oct. 7, building 3,700 ft. sewer from point in brook near Bloomfield, to Belleville Ave. and west to Park Ave., from M. Saggese, $27,759. Noted Sept. 3.

★**Pa., Phila.**—J. C. Winston, dir. Pub. Wks., let contract to Cunningham & Murray, 1345 Arch St., building sewer in Berks St. from 56th to 57th Sts., $5,300; to P. Ellis, Garfield St. from Greene to Royal Sts. and Royal St. from Seymour to Garfield Sts., $11,500, Luzerne St. from L to O Sts., $58,000; to A. Ellis, Ontario St. from Front to Water Sts., $6,000; to J. J. McHugh, Broad St. from 69th Ave. to point 210 ft. north, $2,300, Chalmers St. from Indiana to Somerset Sts., $14,000, Clarion St., $3,700, 59th St. from Springfield to Beaumont Sts., $20,000, Lawrence St. from Butler to Pike Sts. and Pike St. from Lawrence to 5th Sts., $9,000, Palethorpe St. from Clearfield to Lippincott Sts. $3,700, Palethorpe St. from Tioga St. to Glenwood Ave., $4,500, Peters St. from 8th to 29th Sts., $3,600, Venango St. from Front to A Sts., $7,560; to Ryan & Haller, 3rd St. from Norris to Diamond Sts. and Diamond St. from 3rd to 4th Sts., 4th St. from Diamond St. to Susquehanna Ave., $65,000, 13th St. from Porter to Moyamensing Ave., $5,000; to W. J. Lowe, Inc., Lansdowne Ave. from 65th to 66th Sts., $5,000; to McCool Constr. Co., Filmore St. from Leiper to Oakland Sts., $10,200; to A. A. Pastore, Beaumont St. from 56th to 57th Sts., $14,500, Litchfield St. from 56th to 57th Sts., $12,500; to J. Moss, Chew St. from 3rd to Lawrence Sts., $14,000; Estate of D. McMahon, Germantown and Chelton Sts., Mayland St. from Musgrave St. to point 150 ft. northwest, $4,500; to Higgins & Reilly, Marshall St. from Hunting Park Ave. to Bristol St., $11,500; to E. A. Mullin, 65th St. form Lansdowne to Havertord Aves., $30,000; to J. Perna, Lancaster Ave. from 56th to 59th Sts., $81,000; to J. Lombardi, 937 Carpenter St., Hall St. from 10th to Clifton Sts., $5,000; to P. Valentine, 6th St. from Annsbury St. to Boulevard, $15,000; to A. Casciato, Bonnafen St. from Greenway to Upland Sts., $4,600, Edmund St. from St. Vincent to Cottman Sts., $7,500; to N. Cascetti, 28th St. from Moore to Snyder Aves., $20,000; to C. Ricciardi, Durfor St. from 4th to 5th Sts., $6,500, Juniper St. from Shunk St. north, $5,000, and Watts St. from Shunk St. north, $5,000. Noted Oct. 7.

★**Pa., Phila.**—City let contracts building sewers in B St., between Rosehill and Erie Sts., and in Somerdale, Adams and Frankford Branch of Pennsylvania R.R., to J. Perna, 65th and Callowhill Sts., $100,000 and $50,000 respectively; in Bingham St. between Tacony and Adams Sts., to R. Lombardi, 7th and Christian Sts., $63,000; in Ditman St. between Shelmire and Maple Sts., to Curtis Bros., League Island, $75,000; in Godfrey Ave. between 10th and Broad Sts., to E. Pascuzzi, Lincoln Bldg., $32,000; in 9th St. between Champlost St. and Green Lane, to Estate of D. McMahon, Germantown and Chelton Sts., $93,000; building inlets, to F. T. Buckius, Jr., Kensington and Deal Sts., $25,000.

W. Va., Charleston—City Council received bid extending sewerage system in Carr, Garvin, Beechwood, Hansford and Piedmont Sts., from T. B. Roberts, Charleston, $42,510.

★**O., Akron**—City let contract building sewers, drains and inlets in South Maple St. from West Market to West Exchange Sts., segmental block, to T. E. McShaffrey Constr. Co., $59,426.

★**O., Cleveland**—Amer. Steel & Wire Co., Western Reserve Bldg., let contract installing 10 x 1,400 ft. water tunnel, in Newberg Wks., to Stevens-McKeon Co., 5600 Linwood Ave. About $75,000.

★**Minn., Minneapolis**—City will expend $600,000 on sewer construction next year. Work will be done by day labor.

Kan., Wichita—City let contract building Storm Sewer No. 19, involving 2,300 ft. 30-36 in. segment block brick, 13,300 ft. 10-27 in. vitr. pipe, etc., to H. L. Miles, 809 Beacon Bldg., $56,518. Noted Sept. 30.

★**Wash., Seattle**—City let contract building sewers, et al, in Hinds St., et al, to Fiorito Bros., 6022 2nd St., N. W., $46,096. Noted Oct. 28.

★**Cal., Yuma**—City let contract building sanitary sewerage system, including septic tank with necessary manholes, etc., to Gordon Constr. Co., Century Bldg., Denver. About $60,000. Noted Aug. 26.

★**Ont., Toronto**—City let contracts building sewers in Carthness Ave., York St., Glebeholme and Milverton Blvds., to Wks. Dept., City Hall, cost $16,635, $16,151, $9,034 and $11,381; Colin Ave., to Grant Contg. Co., 50 Front St. E., $10,500; Boultkee Ave., to Murphy Contg. Co., 8 Wychwood Park, $5,544; Strathmore Blvd. to A. E. Jupp Constr. Co., 170 Berkeley St., $5,189.

Bridges

PROPOSED WORK

North Carolina—State Highway Comn., Raleigh, having plans prepared and soon receives bids building bridge, 300 ft. long, with draw span and 2,640 ft. viaduct approaches over Roanoke River, also three 40 ft. spans with 1,300 ft. viaduct approaches over Coinine Creek and one 40 ft. span over small creek, Martin and Bertie Counties. Rein.-con. and steel structures being considered. About $327,000. W. L. Craven, bridge engr.

Alabama — State Highway Dept., Montgomery, having plans prepared for two 75 ft. through riveted Pratt trusses and 3 concrete piers, averaging 20 ft. high, over Flint Creek, near Hartsells, Morgan Co. L. G. Smith, c/o State Highway Dept., bridge engr.

Alabama—State Highway Dept., Montgomery, having surveys made for four 225 ft. steel spans and 3 piers, 90 ft. high, and 2 piers, 20 ft. high, solid rock foundation, over Tallapoosa River, Tallapoosa Co. Total length, about 900 ft., 18 ft. roadway. About $300,000. W. S. Keller, state highway engr.

Ala., Collinsville—City and State Highway Dept., Montgomery, having plans prepared for 105 ft. concrete bridge, 30 ft. roadway, two 5 ft. sidewalks, to have 6 spans with solid concrete piers, etc., over creek, here. W. S. Keller, state highway engr.

Tenn., Nashville—City had plans prepared by Freeland, Roberts & Aker, consult. engrs., Independent Life Bldg., constructing Church St. viaduct. Project will mature in spring. Bonds for $350,000 voted for project. Cost will be borne by city, street railway and railroads.

Tex., Breckenridge—Stephens Co. having plans prepared for 229 ft. concrete viaduct, 44 ft. wide, over Gonzales Creek, at foot of Walker St., here, to have electric light posts and 2 ft. 6 in. sidewalks. Work involves 161,123 lb. reinforcing steel, 763 cu. yd. excav., 980 sq.yd. paving, 843.2 cu.yd. Class "A" and 223.4 cu.yd. Class "B" rein.-con., etc. About $69,437. Nagle-Witt-Rollins Eng. Co., Breckenridge, co. engrs.

Wash., Yakima — Yakima Co. received bids building steel bridge over Moxee River, near here, to have two 301, steel spans, 20 ft. wide, involving 263 tons steel, from Union Bridge Co., Seattle, $94,987; Illinois Steel Co., 1054 4th Ave. S., $95,990; C. L. Graves Co., Spokane, $96,720.

BIDS DESIRED

Ga., Alamo—Until Nov. 22, by Bd. Comrs. Rds. and Revenues, Wheeler Co., building 4 rein.-con. bridges and 12 concrete box culverts on highway between here and Mt. Vernon, Federal Aid Project 76. Work involves 742.7 cu.yd. Class "A" and 424.7 cu.yd. Class "B" concrete, 687 cu.yd. wet and dry excav., 95,914 lb. reinforcing steel, etc. Garrett & Slack, Bell Bldg., Montgomery, Ala., engrs.

Michigan—Until Nov. 12, by State Highway Comn., Lansing, building State Trunk Line Bridge 395-771,693, over Black Creek, Kenochee Twp., 157 ft. long, 20 ft. roadway, involving 493.1 cu.yd. rein.-con. and 94.2 cu.yd. concrete.

Michigan—Until Nov. 10, by State Highway Comn., Lansing, building Trunk Line Bridge 413-570,901 over Clam River, Lake Twp., 40 ft. long, 20 ft. roadway, involving 82.9 cu.yd. rein.-con. and 397 cu.yd. concrete.

Michigan—Until Nov. 15, by F. F. Rogers, State highway comr., Lansing, building Bridge F. A. 4-611, 102 F. A., over drain between Sects. 21 and 28, T 10 N, R 14 W, Moorland Twp., to have two 9 ft. 6 in. abutments with 136 cu.yd. volume, 35 ft. concrete girder with 63 cu.yd. volume and channel change of 600 cu.yd. volume; Bridge F. A. 5, 611, 103 F. A., over drain in Sect. 19, T 10 N, R 14 W, Moorland Twp., to have two 8 ft. 6 in. abutments with 91 cu.yd. volume, 35 ft. concrete girder with 65 cu.yd. volume and channel change of 50 cu.yd. volume; Bridge 610, 201 F. A., over Crockery Creek between Sects. 19 and 30, T 10 N, R 13, W. Casnovia Twp., to have two 14 ft. abutments with 252 cu.yd. volume, 35 ft. concrete girder with 66 cu. yd. volume, all above to be on Federal Aid Project 43, Muskegon Co.

Kan., Marysville—Until Nov. 9, by Clerk Marshall Co., furnishing labor and material building 200 ft. steel truss span bridge on Sect. 21-T A-B9; 40 ft. rein.-con. girder bridge between Sect. 17-20 T5 and R 10; one 24 ft. rein.-con. span bridge on north side Sect. 1 T1, R6, one 24 ft. beam span on south side Sect. 31, T2, R6, one 24 ft. beam span bridge on west side Sect. 30, T2, R7; 42 ft. steel span bridge on Sect. 1, T1, R7; 421 ft. steel span bridge between Sect. 35 and 36, T2, R9; 50 ft. steel span bridge on north line Sect. 4, T1, R10, R. F. Gallup, Marysville, engr.

Tex., Ft. Worth—Until Nov. 11 (change of date), by H. L. Small, judge Tarrant Co., building 112 ft. rein.-con. bridge, 20 ft. wide, on Highway 1, over Marys Creek. R. Y. Glenn, Court House, consult. engr. Noted Oct. 21.

Ontario—Until March 1, by W. A. McLean, deputy minister of highways, Parliament Bldgs., Toronto, building concrete culverts and grading in various townships. Cement and steel will be supplied by owners. Total cost between $1,500,000 and $2,000,000.

Ont., Aylmer—Until Nov. 12, by J. A. Bell & Son, engrs., Court House, St. Thomas, building 300 ft. steel bridge on concrete foundation, over Salters Gully, Malahide Twp. About $45,000.

Bridges (Continued)

Ont., Brantford—Until Nov. 10, by H. Simpson, chn. Bd. Pub. Wks., building two 175 ft. rein.-con. arches, piers, abutments and concrete approaches, over Grand River. About $250,000. E. A. James Co., 36 Toronto St., Toronto, engrs.

B. C., Victoria—Until Nov. 22, by City Clerk, building greater part of substructure (Contr. 1) of Johnson St. Bridge; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Alabama—State Highway Dept., Montgomery, received bids building two 175 ft. and two 120 ft. steel spans over Tallapoosa River, near Judkins Ferry, Montgomery and Elmore Counties, from Virginia Bridge & Iron Co., Roanoke, Va., $59,589; Austin Bros. Bridge Co., 156 Greenwood Ave., Atlanta, Ga., $69,000; Pensacola Shipbuilding Co., Blount Bldg., Pensacola, Fla., $70,200; 5 concrete piers and 454 ft. approaches, from Sartan, Smith & Dobson, Montgomery, $103,343; Pensacola Shipbuilding Co., Blount Bldg., Pensacola, Fla., $108,744; Hardaway Constr. Co., Columbus, Ga., $114,676. Noted Sept. 23.

★**Wis., Oshkosh**—Park Rd. let contract building rein.-con. and stone bridge in Menominee Park, to Ganther & Kroyer, Oshkosh, $23,565.

★**Minn., Minneapolis**—Great Northern Ry. Co., Railroad Bldg., St. Paul, let contract lowering tracks and building concrete viaducts, here, to N. W. and W. A. Nelson, 460 Temple Court. About $680,000.

★**Kan., Garnett**—Anderson Co. let contract building 50 ft. through girder bridge, 20 ft. wide, on King of Trail Rd., 4 mi. north of here, involving 446.9 cu.yd. rein.-con. and 12.8 tons steel, to W. S. Tucker, Wellsville, $17,922.

★**Tex., Ft. Worth**—Larrant Co. let contract building 30 ft. steel span bridge, 20 ft. wide, concrete abutments, over Big Fossil Creek, on Kellar Rd., to Echols Bros., 1010½ Main St., $20,952.

Streets and Roads

PROPOSED WORK

N. Y., Brooklyn—E. Riegelmann, boro. pres., received no bids Oct. 27, regulating and repaving with wood block 72nd St. from 3rd to 6th Aves. Noted Oct. 21.

Fla., Miami—Comrs. Dade Co. voted $75,000 bonds to build 32 mi. Tamiame Trail and road to Penn Sugar Plantation, 15 ft. wide, vitr. brick or asphalt.

Alabama—State Highway Comn., Montgomery, having plans prepared for grading, draining and surfacing with sand clay on sand base 6.311 mi. state road, from Butler to Riderwood, Choctaw Co. About $50,000. W. S. Keller, state highway engr.

Alabama—State Highway Comn., Montgomery, having plans prepared for grading, draining and surfacing 20.62 mi. state road from Monroeville to Little River, Monroe Co., gravel or sand clay. About $160,000. W. S. Keller, state highway engr.

O., Cleveland—City plans to grade, drain, curb and pave East 105th St. from Kinsman to Armstrong Aves., Hamilton Ave. from East 22nd and East 33rd Sts., brick on concrete base. About $75,250. R. Hoffman, city engr.

O., Cleveland—City plans to widen and pave Carnegie Ave. from East 55th to East 89th Sts., asphalt on 6 in. concrete base. About $155,045.

O., Cleveland—Comrs. Cuyahoga Co. plan to grade, drain and pave Bway. from East 55th St. to Miles Ave., Chagrin River Rd. from Mayfield Rd. northerly to county line, Detroit Ave. from West 117th St. to West Blvd., North Ridge Rd. to Lorain Rd., Lee Rd. from Shaker Heights Village to Bway., Lloyd Rd. from Lake Shore Blvd. southerly, Depot Rd. to county line, Royalton Rd. to county line, Spencer-Mastic Rd., from Lorain to Columbia Rds., York-Bennet Rd. from Royalton Rd. to county line, Pleasant Valley Rd. from Wooster Pike to State Rd., West Madison Ave. through city of Lakewood, Prospect Rd. to Hunt Rd., also Drake, Hall, Prospect, Ridge, and Snow Rds. About $5,000,000. W. A. Stinchcomb, Court House, engr.

O., Cleveland—Comrs. Cuyahoga Co. plan to build new brick floor on Harvard-Denison Bridge. About $250,000. W. A. Stinchcomb, Court House, engr.

O., East Cleveland (Cleveland P. O.)—City plans to grade, drain, curb and pave East 133rd St. from Mann to Shaw Aves., brick on concrete base. About $22,000. M. Garnett, City Hall, engr.

O., Lakewood (Cleveland P. O.)—Bd. Educ. Warren Rd., plans to grade and build sidewalks on various school grounds. About $58,500. G. Grill, clk. Private plans.

O., Niles—Comrs. Trumbull Co. soon receive bids paving road from Niles to Mineral Ridge, brick. About $100,000.

Ill., Carterville—Bd. Local Impvts. receives bids about Dec. 20, paving various streets. About $30,000. P. B. Wilson, Marion, engr.

Wis., Ashland—City having plans prepared paving Ellis Ave. from 6th to 12th Sts., bitulithic top on old macadam foundation; Vaughn Ave. from 2nd to 6th Sts. and 3rd St. from 14th Ave. W. to Cemetery Rd., concrete; 3rd St. from Ellis to Stuntz Aves., bitulithic top; Stuntz Ave. from 2nd to 3rd Sts., and all blocks between 2nd and 3rd Sts. from 2nd St. to Stuntz Ave. W. C. Morris, city clk.

Wis., Racine—Racine Co. State Rd. and Bridge Com. instructed W. O. Thomas, highway comr., to prepare surveys for Durand Rd. from here to Corliss; North Cape Rd. from 12th St. to Milwaukee Co. line; Rochester-Waterford-Windlake Rd. from 12th St. (Rochester) through Waterford to Sect. 24; Burlington-Elkhorn Rd., State Trunk Highway 20 from Burlington to Walworth Co. line.

Wis., Racine—Racine Co. State Rd. and Bridge Com. recommends completion of 12th State Rd. from here to Rochester, Burlington, Geneva Rd. and Walworth Co. line.

Kan., Concordia—Cloud Co. had plans prepared for graveling, grading and building bridges and culverts on 2.15 mi. road, 20 ft. wide, concrete or gravel. Bids soon on earthwork. B. C. Thurston, Concordia, engr.

Kan., Goodland—City plans to pave 8 blocks, 40 to 60 ft. wide. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs.

Kan., Kansas City—Wyandotte Co. had plans prepared for grading and building culverts on 1.05 mi. Golden Belt, 18 ft. wide. About $40,850. O. K. Williamson, Kansas City, Mo., engr.

Kan., Yates City—City plans to pave 9 blocks Main St., 60 ft. wide. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs.

Missouri—State Highway Dept., Fulton, received no bids Oct. 22, building 18 mi. Fulton-Jefferson City Rd. (New Bloomfield Spec. Rd. Dist., 24 ft. wide, Federal Aid Project 97, Calloway Co., cost $119,757; 2 bridges, 1 over drainage ditch and other over Middle River, $5,198 and $8,499 respectively. Noted Sept. 30.

Mo., St. Louis—City plans to repave 800 ft. Wieschan Ave., 26 ft. wide, brick, cost $17,700, asphalt, $16,100 or bituminous macadam, $12,600; 285 ft. Motard Ave., 24 ft. wide, including grading of sidewalk spaces for 8 ft. sidewalk, brick, $5,600, asphalt, $5,600 or bitulithic, $5,600; 1,420 ft. Ohio Ave., 30 ft. wide, brick, $32,000, asphalt, $32,200, or bitulithic, $32,000; 600 ft. Wilson Ave., 30 ft. wide, brick, $13,400, asphalt, $13,450, or bitulithic, $13,400; 1,170 ft. Ray Ave., 24 ft. wide, asphalt, $26,450, bitulithic, $26,350, or bituminous macadam, $21,250; 1,780 ft. Magnolia Ave., 30 ft. wide, asphalt, $37,750, bitulithic, $37,650, or bituminous macadam, $28,750; 807 ft. alley between Pennsylvania and Compton Aves. from Eads to St. Vincent Aves., 15 ft. wide, brick, $7,000, or concrete, $5,200; grading, including grading of sidewalk spaces on 2,040 ft. McCune Ave., 60 ft. wide, $7,500. W. W. Horner, City Hall, engr.

Texas, Columbus—Colorado Co. having plans prepared surfacing and draining 4.57 mi. Highway 3, Glidden-Borden Rd., involving 15 acres clearing and grubbing, 27,510 cu.yd. borrow, 330 cu.yd. Class "A" concrete, 9,640 cu.yd. gravel and 22,000 lb. reinforcing steel. About $50,001. B. H. Faber, co. engr.

Tex., Daingerfield—Morris Co. having plans prepared grading, surfacing and building concrete culverts and timber trestles on 2.694 mi. Highway 35, from Boggy Creek to Titus Co. line, involving 9,498 cu.yd. borrow and 13,504 cu.yd. earth excav., 5,785 lb. reinforcing steel, 47,130 ft. lumber, 68.6 cu.yd. Class "A," 21.6 cu.yd. Class "B" and 10 cu.yd. Class "C" concrete. About $41,476. McLendon & Purnell, co. engr.

Tex., Hereford—Deaf Smith Co. plans to grade and surface 2 mi. 3rd and 4th Sts., 40 ft. wide, bituminous macadam. About $200,000. W. Houren, c/o H. Exall Elrod Co., Interurban Bldg., Dallas, engr.

Tex., San Antonio—Bexar Co. has plans prepared surfacing and draining mi. Highway 27—Bandera—Proposed Project 217, involving 4.65 mi. road grade work, 3,600 cu.yd. borrow, 4,480 cu. earth, 1,280 cu.yd. loose rock and 640 yd. solid rock excav., 48,150 sq.yd. bituminous macadam, 6,100 cu.yd. gravel, 5, lb. reinforcing steel, 69.6 cu.yd. Class and 21.6 cu.yd. Class "B" concrete. About $61,199. C. E. Hoff, San Antonio, co. en

Tex., San Augustine—San Augustine having plans prepared grading, surfac and draining 20.9 mi. Highway 21, fr Nacogdoches Co. line to Sabine Co. li involving 37,800 cu.yd. borrow, 189,000 yd. unclassified earth and 2,000 cu.yd soft rock excav., 48,369 cu.yd. gravel, 323,0 lb. structural steel, 436 cu.yd. Class and 500 cu.yd. Class "B" concrete, About $296,540. W. A. French, co. engr.

Tex., Sinton—San Patricio Co. received no bids Oct. 20, surfacing and building concrete culverts on 15.06 mi. Highway in Rd. Dist. 1, also draining, grading, surfacing and building bridge on 12.54 mi Highway 9 in Rd. Dist. 5. Work will be readvertised. A. C. Pancoast, Veeville co engr. Noted Oct. 14.

Okla., Weleetka—City plans to pave four blocks Main St. et al. 50-60 ft. wide, involving 7,200 sq.yd. 3 in. vertical fibre on concrete base, 2,650 lin.ft. concrete curbing and 2,800 cu.yd. earth excav. About $51,582. V. V. Long & Co., 605 W. D. Capitol Hill, Oklahoma City, engrs.

Colorado—State Highway Dept., Denver, rejected bids received Oct. 11, grading mi. Norwood Rd., 16 ft. wide, Federal Aid Project 66, Montrose Co., cost $45,023; 6.8 mi. Kremmling Muddy Pass Rd., 16 ft wide, Federal Aid Project 75, Grand Co. $22,564; grading and gravel surfacing 32 mi. road from Wray to Schram, 16 ft. wide, Federal Aid Project 40, Yuma Co., $27,174; 3.97 mi. Craig-Mabelle Rd., 16 ft. wide, Federal Aid Project 107, Moffatt Co., $53,661; 4.8 mi. Florence-Cripple Creek Rd., 16 ft wide, Federal Aid Project 52, Teller Co., 21,480; grading and shale surfacing 1.8 mi Rifle-Meeker Rd., 16 ft. wide, Federal Aid Project 128, Rio Blanco Co., $15,766; paving 1.27 mi. Denver-Arvada Rd., 18 ft. wide, Federal Aid Project 120, Jefferson Co., $54,149. Work will be readvertised. Noted Oct. 21.

Col., Denver—City plans to surface 1 mi. West 33rd Ave., 30 ft. wide, involving 16,300 sq.yd. asphalt. About $22,044. J. S. Hunter, city engr.

Idaho, Filer—City had plans prepared for paving various streets. L. C. Kelsey, Nampa, engr. About $136,038.

Arizona—State Highway Dept., Phoenix, received bids from McPeak, Burton & Brockman, 620 Security Bldg., constructing Sect. A, Phoenix-Glendale Highway, Federal Aid Project 33, involving 800 cu.yd. unclassified excav. in roadway, cost $1 per cu.yd., 37,400 sq.yd. plain concrete pavement, $1.90, 33 cu.yd. Class "A" concrete, $25, 26 cu.yd. Class "B" concrete in headwalls, $25, etc., amount of bid, $82,877, state furnished materials, $43,694, total cost, $126,572; Sect. B, Phoenix-Glendale Highway, Federal Aid Project 33, 700 cu.yd. unclassified excav. in roadway, $1, 7,650 cu.yd. unclassified borrow, $1, 37,160 sq.yd. plain concrete pavement, $2.05, etc., amount of bid $86,131, state furnished materials, $43,337, total cost, $129,469. Bids were also received for building 7.5226 mi. Sect. 1 Ray-Superior Highway, Federal Aid Project 28, involving (a) 87,990 cu.yd. excav. in roadway, (b) 11,050 cu.yd. excav. in borrow, (c) 4,736 cu.yd. per 100 ft. overhaul, (d) 134 cu.yd. Class "A" concrete in slab culverts, (i) 221 cu.yd. Class "B" concrete in arch culverts, (f) 268 cu.yd. Class "B" concrete in arch culverts, (e) 43 cu.yd. Class "A" concrete in slab culverts, (h) 158 cu.yd. Class "B" concrete in slab concrete, (i) 221 cu.yd. Class "B" concrete in pipe culvert headwalls, (j) 35,206 lb. reinforcing steel, etc., from Davey & Jones, Superior, (a) $1.70 per cu.yd., (b) $1.25, (c) $0.03, (d) $25, (e) $25, (f) $23, (g) $25, (h) $23, (i) $23, (j) $78, amount of bid, $217,877, state furnished materials, $19,473, total cost, $237,349; De Waard & Cobham, Ray, (a) $1.75, (b) $1.15, (c) $0.10, (d) $30, (e) $30, (f) $29, (g) $30, (h) $29, (i) $30, (j) $8, amount of bid, $220,804, state furnished materials, $19,473, total cost, $240,277. Above bids rejected. Noted Sept. 30.

Arizona—State Highway Dept., Phoenix, rejected bids received Sept. 4, building 9 mi. concrete road between Tucson and Nogales, Pima Co. Federal Government has been asked to appropriate toward cost Noted Oct. 7.

Streets and Roads (Continued)

Que., Chateau Richer—Montmorency Co. com. receives bids building 15 mi. road along St. Lawrence River between St. Anne de Beaupre and Malbaie. About $350,000. Dept. Rds., Quebec, engrs.

Ont., Chesley—Town plans to build 7,000 sq.yd. asphalt, bitulithic or concrete pavement. About $30,000. H. S. Sanderson, clk. Engineer not selected.

BIDS DESIRED

N. Y., Brooklyn—Until Nov. 10, by E. Riegelmann, boro. pres., regulating and repaving with permanent asphalt on 6 in. concrete foundation roadway of East 16th St. from Ditmas Ave. to point 138 ft. north of Newkirk Ave.; permanent Grade 1 granite on 6 in. concrete foundation roadway of Nostrand Ave. from Eastern Parkway to Empire Blvd., portion between tracks and rails to be of old granite blocks recut, roadway of Saratoga Ave. from Chauncey St. to Atlantic Ave., old granite blocks recut.

N. Y., S. I. St. George—Until Nov. 10, by C. D. Van Name, pres. Richmond Boro., building sidewalks on both sides of Richmond Terrace between Morningstar Rd. and John St., where not already done, together with all incidental work.

W. Va., St. Albans—Until Nov. 11, by City Council, paving 5th St. between 4th Ave. and Kanawha River, involving 1,200 cu.yd. excav., 2,444 sq.yd. paving, and 15,082 ft. curbing and guttering. L. A. Edwards, city clk. J. M. Oliver, city engr.

Ohio—Until Nov. 12, by State Highway Comn., Columbus, grading, building bridges and culverts and paving roads in following counties:

Ashland Co., Sect. "C" Ashland-Wooster Rd., 0.378 mi., bituminous concrete or brick, $27,656.

Belmont Co., Sect. "H-1" Barnesville-Woodsfield Rd., 1.778 mi. bituminous macadam, $68,836.

Sect. "I" Barnesville-Woodsfield Rd., 2.061 mi., bituminous macadam, $74,065.

Franklin Co., Sect. "P" Columbus-Sandusky Rd., 2.02 mi., brick, $380,490.

Hamilton Co., Sect. "X" Glendale-Milford Rd., 2.561 mi., concrete, $156,966.

Licking Co., Sect. "F" Newark-Mt. Vernon Rd., 5.039 mi., plain concrete or bituminous macadam, $248,314.

Montgomery Co., Sect. "Q" Dayton-Troy Rd. 1.707 mi., rein.-con. $96,519.

Sect. "P" Dayton-Troy Rd., 1.009 mi., rein.-con. or brick, $60,905.

Sect. "M" Van Wert-Ottawa Rd., 2.865 mi., Kentucky rock asphalt on waterbound base, $112,402.

Sect. "Ottoville" Van Wert-Ottawa Rd., 0.595 mi., Kentucky rock asphalt on waterbound base, $22,986.

Seneca Co., Sect. "D-1" Columbus-Sandusky Rd., 2.038 mi., bituminous macadam, $79,832.

Sect. "R" Lima-Sandusky Rd., 2.167 mi., bituminous macadam, $80,659.

Sect. "F-1" Bucyrus-Tiffin Rd., 0.884 mi., bituminous macadam, $32,580.

Sect. "G" Tiffin-New Haven Rd., 2.007 mi., bituminous macadam, $63,790.

Noble Co., Sect. "N" Cambridge-Caldwell Rd., 3.594 mi., grading and constructing drainage structures, $83,106.

Sect. "O" Cambridge-Caldwell Rd., 4.748 mi., grading and constructing drainage structures, $91,764.

Putnam Co., Sect. "A" Findlay-Delphos Rd., concrete block floor and waterbound macadam approaches of bridge, $2,603.

Lorain Co., Sect. "N" Twinsburg-Elyria Rd., concrete superstructure on bridge, $2,300.

Meigs Co., Sect. "O" Pomeroy-Athens Rd., 3.303 mi., grading, and constructing bridges and culverts, $91,763.

Fulton Co., Sect. "L-1" Archbold-Fayette Rd., 1.018 mi., grading and constructing bridges and culverts, $26,474.

Geauga Co., Sect. "V-2" and "W" Chagrin Falls-Greensville Rd., and Sect. "F" Warren-Burton Rd., 9.4 mi., grading roadway and constructing bridges and culverts, $85,695. Noted Sept. 9 and Oct. 14.

Michigan—Until Nov. 13, by State Highway Dept., at dist. office, Escanaba, grading and surfacing 5.971 mi. Federal Aid Project 3, portion of Sect. C, Baraga Co., 15 ft. wide, involving 7,299 cu.yd. gravel surface, 315.3 stations fine grading.

Mich., Crystal Falls—Until Nov. 16, by Bd. Rd. Comrs., Iron Co., grading and surfacing 7.182 mi. State Trunk Line Rd. 73-1, Sect. B, 16 ft. wide, involving 67,415 sq.yd. gravel and 379 stations fine grading.

Mich., Lake City—Until Nov. 16, by Bd. Rd. Comrs., Missaukee Co., grading, draining and surfacing 4.465 mi. State Trunk Line Rd. 55-1, 16 ft. wide, involving 12,718 cu.yd. earth excav., 41,913 sq.yd. gravel, 178 cu.yd. concrete in culverts, etc.

Minn., Mantorville—Until Nov. 15, by Dodge Co. building Federal Aid Project 173, involving 1 acre grubbing, 26,855 cu.yd. excav., 38,518 cu.yd. overhaul, etc.; Job 2002, State Rd. 6, involving 18 acres clearing and grubbing, 40,000 cu.yd. excav., etc. R. D. Jorgens, Hayfield, engr.

Neb., Chadron—Until Nov. 8, by City Council, improving Impvt. Dist. 2 and 3, involving 115,000 sq.yd. Warranite bitulithic, vitr. brick, asphalt or bituminous macadam paving and 15,000 ft. curbing and guttering. R. D. Salisbury Co., 1600 Downing St., Denver, Col., engr. Noted Oct. 7.

Missouri—Until Nov. 12, by State Highway Dept., Springfield, building 16.54 mi. Sect. A Oklahoma-St. Louis Rd., 24 ft. wide, Federal Aid Project 150, Greene Co., cost $111,268; 14.79 mi. Sect. B Oklahoma-St. Louis Rd., 24 ft. wide, Federal Aid Project 150, Greene Co., $110,256. Noted Sept. 16.

Missouri—Until Nov. 27, by State Highway Dept., Milan, building 1.4 mi. road east and west through Milan, Federal Aid Project S 20.15, Sullivan Co., involving 23,259 cu.yd. earth excav., 2,454 cu.yd. borrow, 23,550 cu.yd. per 100 ft. overhaul, 109.8 cu.yd. Class "B" and 1.2 cu.yd. Class "C" concrete masonry, 8,222 lb. reinforcing steel. About $24,250.

Tex., Boston—Until Nov. 15, by J. B. Lytal, judge Bowie Co., grading, surfacing and draining 4.05 mi. Highway 8 from Maud south to Sulphur River, involving 17,753 cu.yd. borrow excav., 6,340 cu.yd. gravel, 26,436 lb. reinforcing steel, 318.78 cu.yd. Class "A" and 29.48 cu.yd. Class "C" concrete, etc., cost $47,242; grading, surfacing and building rein.-con. bridge and culverts on 12.3 mi. Maud-Red Water Rd., 37 acres clearing and grubbing, 38,817 cu.yd borrow and 46,386 cu.yd. earth excav., 128,616 lb. reinforcing and 30,200 lb. structural steel, 19,240 cu.yd. gravel, 1,564.3 cu.yd. 1:2:4, 34.7 cu.yd. 1:2½:5 and 54 cu.yd. 1:3:6 concrete, etc., $165,155.

Tex., Ft. Worth—Until Nov. 11 (change of date), by H. L. Small, judge Tarrant Co., grading and draining 6.824 mi. Highway 1, Kutemans Cut-off Rd. R. V. Glenn, Court House, consult. engr. Noted Oct. 21.

Cal., San Diego—Until Nov. 8, by A. H. Wright, city clk., paving Lytton and Voltaire Sts., Chatsworth and Catalina Blvds. Noted June 24.

Que., Joliette—Until Nov. 21, by W. Malo, secy.treas., building 2½ mi. Cote du Village St. Paul de Joliette Rd. About $50,000.

Ontario—Until Nov. 16, by W. A. McLean, deputy minister of highways, Parliament Bldgs., Toronto, for earth work, concrete work and fencing, etc., at Windsor, Sandwich West Twp., Contr. 163; also building 3 mi. macadam roadway 20 ft. wide at Village of Iroquois Matilda Twp. Contr. 164. About $20,000 and $40,000 respectively.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Maine**—State Highway Dept., Capitol, Augusta let contract building 1½ mi. state road, Topsham, bituminous macadam, to E. J. Rourke, Augusta. About $45,000; cost plus percentage basis.

★**Maine**—State Highway Dept., Augusta, will gravel 1 mi. state highway, Sullivan, cost $7,000; ½ mi. South Thomaston, $6,000; 1 mi. Cherryfield, $7,000; 1 mi. St. George, $6,000; 1 mi. Gouldsboro, $7,000; 2 mi. Dedham, $20,000; 2 mi. Surry, $15,000; 2 mi. Augusta, $12,000; 2 mi. Sydney, 12,000; 2 mi. Ft. Kent, $15,000; ½ mi. Sandy Bay, $20,000 and 2 mi. Van Buren, $15,000. Work will be done by day labor.

★**Vt., South Hero**—State Highway Dept., Montpelier, let contract repairing highway bridge from here to Milton, to W. F. Loud & Sons Co., 94 Hall Pl., Quincy Mass. About $15,000.

★**Mass., Boston**—Pub. Wks. Dept., City Hall Annex, let contract paving Pub. Alley 909, granite block, to A. De Steffano & Bros., 8 Everett St., East Boston, $3,837; relaying and recutting Fargo St., South Boston, granite block, to B. E. Grant, 101 West Cedar St., Boston, $11,299.

★**Mass., Fall River**—City let contract for 1,200 sq.yd. Warrenite-bitulithic pavement (binder laid by city), 8,755 sq.yd. on macadam foundation and 1,200 sq.yd. on 6 in. concrete, to Warren Bros. Co., 142 Berkeley St., Boston.

New York—State Highway Comn., 55 Lancaster St., Albany, received bids Oct. 29, improving and completing (a) Rd. 1,419, Ulster Co., (b) Rd. 1,306, Westchester Co., (c) Rd. 5,652, Albany Co., (d) Rd. 5,656, Montgomery Co., (e) Rd. 1,545 and (f) Rd. 1,546, Oneida Co., (g) Rd. 5,659, Otsego Co., (h) Rd. 1,556, Seneca Co., (i) Rd. 5,661, Yates Co., (j) Rd. 1,471, Chautauqua Co., (k) Rd. 5,172-A, Erie Co., from S. B. Van Wagoner, Rondout, (a) $105,700; D. Schoentag, Saugerties, (a) $112,409; H. W. Roberts & Co., 610 Lansing St., Utica, (a) $112,871; J. R. Arborio, New Haven, Conn., (b) $44,584; Belmar Contg. Co., Troy, (c) $26,352; McCarthy & Rock, Winthrop, (c) $27,036; P. H. Murray, Troy, (c) $27,259; R. Hopkins, Troy, (d) $149,856, (j) $277,297; J. P. Dugan Co., Amsterdam, (d) $152,551; M. Vrooman, Gloversville, (d) $152,607; Lane Constr. Corp., 37 Colony St., Meriden, Conn., (e) $160,968, (f) $177,724, (i) $108,023; J. Walker, 19 Steuben St., Albany, (f) $180,783; I. L. Smith & Son, Lyon Falls, (e) $168,734, (f) $187,637; Stento & Serafini, Binghamton, (g) $52,329, (i) $114,706; Dale Eng. Co., Mann Bldg., Utica, (g) $52,400; A. J. Rockwood, Esperance, (g) $52,618; J. Conley, Ithaca, (h) $47,873; Greenfield Constr. Co., 89 Main St., Hornell, (i) $111,537; Forness & Fote, Olean, (j) $275,075; Wing & Munger, Tully, (j) $276,771; J. E. Pidgeon, Rochester, (k) $10,369; W. L. Love, Tonawanda, (k) $10,854; J. Johnson Constr. Co., Buffalo, (k) $11,157. Noted Oct. 21.

★**N. Y., Brooklyn**—E. Riegelmann, boro. pres., let contracts regulating and grading 86th St. from Stillwell to Gravesend Aves., to P. J. Donovan, 30 Church St., New York City, $25,524; regulating, grading curbing and laying sidewalks on 86th St. from Stillwell to Gravesend Aves., to Cassel Bros., $9,853; regulating and laying sidewalks in and adjacent to Borough Hall to F. Percicano, $11,660. Noted Oct. 21.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received bids Oct. 27, for (a) relocating car tracks and rails on Bath Ave. from Bay 19th to 21st Sts., regulating and repaving with asphalt, (b) Bath Ave. from Bay 19th to 21st Sts., (c) Linden St. from Knickerbocker to Myrtle Aves., (d) 72nd St. from 3rd to 6th Aves., from C. L. Riker, 19 Cedar St., New York City, (a) $4,226; Eastern Constr. Co., 110 West 40th St., New York City, (a) $5,148; Consolidated Asphalt Co., 52 9th St. (b) $34,165, (d) $109,104; Sicilian Asphalt Co., 41 Park Row, New York City, (c) $21,417; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (b) $36,451, (d) $108,265; Uvalde Asphalt Paving Co., 1 Bway., New York City, (b) $34,986, (c) $22,331, (d) $114,242. Noted Oct. 21.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Oct. 29, regulating and repaving (a) Cooper Ave. from Myrtle Ave. to Long Island R.R., (b) Shell Rd. from 20th St. to Jackson Ave., (c) Strong Causeway from Colonial St. to North Hempstead Turnpike, (d) Rockaway Blvd. from Eastern to 5th Aves., (e) Rockaway Blvd. from Norton's Creek to Cronin's Crossing, from Sicilian Asphalt Paving Co., Paidge Ave., Brooklyn, (a) $41,640; Consolidated Asphalt Paving Co., 52 9th Ave., Brooklyn, (a) $42,195, (b) $165,932, (c) $105,261; Uvalde Asphalt Paving Co., Metropolitan Ave., Brooklyn, (a) $43,100, (d) $75,250, (e) $89,475; Cleveland Trinidad Co., Flushing, (b) $182,885, (c) $102,127; W. P. McDonald, Port Richmond, (b) $147,635, (c) $94,300. Noted Oct. 21.

★**N. Y., S. I. St. George**—C. D. Van Name, pres. Richmond Boro., let contract repaving Richmond Turnpike, concrete, to C. Vanderbilt, Elizabeth St., West New Brighton, $108,940. Noted Oct. 28.

★**Pa., Pittsburgh** — City let contract grading and paving Carson St. from Smithfield to 7th Sts., to M. O'Herron & Co., South 1st and McKean Sts., $104,886. Noted Oct. 21.

Pa., Pittsburgh—City received bids Oct. 9, grading, paving, curbing, etc. Commercial St. from Blackhawk to Whipple Sts., (2) Pocono St. from Whipple to city line, (3) Homestead St. from Nevada to Pocono Sts., (4) Webster Ave. from Fullerton to Roberts Sts., from M. O'Herron Co., South 1st and McKean Sts., (1) $12,700, (2) $16,845, (3) $28,056; T. Cronin Co., 18th and Fox Sts., (1) $12,848, (2) $16,945, (3) $28,295; Booth & Flinn, Ltd., Forbes St., (1) $13,636, (2) $18,040, (3) $30,222; F. and F. Duilus, 40 Boundary St., (4) $42,628; J. H. McQuade Sons Co., Bakewell Bldg., (4) $52,389.

★**W. Va., Wellsburg**—Comrs. Brooke Co. let contract building 2 mi. road, Buffalo Dist., to Keely Constr. Co., Clarksburg, $56,220.

Streets and Roads (Continued)

★**North Carolina**—State Highway Comn., div. office, Kinston, let contracts improving 9.57 mi. road between Ayden and Greenville, Federal Aid Project 65, to Porter & Peck, Greenville, $87,315; 12 mi. road from Craven Co. line, via Reelsboro to Bayboro, Federal Aid Project 90, to Eagle Eng. Co., New Bern, $107,306; 26.11 mi. road between Pender-Duplin Co. line, via Burgaw to Cape Fear River, Federal Aid Project 81, to Porter & Boyd, Charlotte, $243,600. Noted Oct. 28.

★**N. C., Durham**—Comrs. Durham Co. let contract grading, draining and topsoiling 4.52 mi: Fish Dam Rd., to C. D. Rigsbee, Durham, $32,976.

★**N. C., Whiteville**—Comrs. Columbus Co. will sand clay surface and build concrete bridges on 18 mi. Charlotte-Wilmington Highway. Work will be done by day labor under supervision of R. C. Council, Wananish, ch. engr.

★**South Carolina**—State Highway Comn., Columbia, let contract building 2 mi. road from Greenville to Jones Store, north of here, concrete, to Slattery & Henry, Greenville. About $113,000. Noted Oct. 21.

★**Ala., Birmingham**—City let contract paving 16th St. from 8th to 13th Aves., involving 90 sq.yd. vitr. brick, 890 sq.yd. granite block, 86 lin.ft. granite curbing, 1,210 lin.ft. brick guttering, 900 sq.yd. concrete sidewalks, 9,550 sq.yd. bitulithic macadam, to Dunn Constr. Co., Chamber Commerce Bldg., $41,537; portions of 13th Ave. and 18th St., 270 lin.ft. stone curbing, 715 sq.yd. concrete guttering, 420 sq.yd. concrete sidewalk, 5,520 sq.yd. asphaltic concrete, etc., to H. N. Bowdry, Empire Bldg., $18,931.

★**La., New Orleans**—City let contract improving (1) Broad St. from Canal St. to New Basin Canal, (2) Sycamore St. from Audubon St., to Broadway, (3) South Clairborne Ave. from Canal St. to New Basin Canal, (4) Broad St. from New Basin Canal to Washington Ave., (5) South Clairborne Ave., from New Basin Canal to Napoleon Ave., (6) Magazine St. from Joseph St. to Washington Ave., (7) Calliope St. from Magnolia St. to Clairborne Ave., (8) Julia St. from St. Charles to Rampart Sts., (a) paving, (b) subsurface drains, to Craven & Lang, 1015 Hibernia Bank Bldg., (1a) $165,955, (2a) $3,601, (3a) $171,468, (4a) 101,696, (5a) $200,821, (6a) $277,971, (7a) $34,920, (8a) $23,529; M. Mitchell, 2646 Banks S., (1b) $69,830, (3b) $94,473; C. W. Kreher, 300 South Clarke St., (2b) $5,214, (7b) $11,641; E. Egans Sons, 4338 Canal St., (4b) $111,704, (6b) $181,644, (8b) $24,098; Crescent Contg. Co., Inc., (5b) $283,755.

★**O. Akron** City let contract paving South Maple St. from West Market to West Exchange Sts., sheet asphalt, to T. E. McShaffrey Constr. Co., $61,126. Noted July 22.

Wis., Milwaukee—Dept. Pub. Wks. received bids Oct. 20, paving with asphalt, (1) Becher St. from 2d to Windlake Aves., (2) Center St. from Sherman to 51st Sts., (3) Chambers St. from 35th St. west, paving with cement concrete, (4) 11th St. from Atkinson to Lake Sts., (5) 15th St. from Atkinson to Lake Sts., (6) 14th St. from Atkinson to Lake Sts., (7) Fratney St. from Keefe to Franklin Sts., (8) 9th St. from Graham St. to Somers Subdivision, (9) 10th St. from Graham to Lake Sts., (10) 12th St. from Atkinson to Lake Sts., (11) alley between 19th, 20th, Lloyd and Elm Sts., building cement sidewalks on (12) Hayes Ave. from 28th to 30th Aves., (13) 28th Ave. from Lincoln to Pabst Sts., (14) 29th Ave. from Pabst to Lincoln Sts., (15) Western Ave. from Pabst to Lincoln Sts., paving with sandstone, (16) Kinnickinnie Ave. from Mitchell to South Bay Sts., (17) 7th St. from Vilet to Galena Sts., from White Constr. Co., Pabst and 30th Aves., (1) $33,206; Badger Constr. Co., 97 Wisconsin St., (2) $71,493, (3) $2,199; Froemming Bros., 1326 Humboldt Ave., (4) $25,635, (7) $19,429, (8) $17,557; Kroening Constr. Co., Majestic Bldg., (5) $13,783, (6) $13,807, (9) $23,353, (10) $22,711, (16) $48,864; F. Schomann, 770 28th St., (12) $1,954, (13) $4,529, (14) $8,119, (15) $3,754; A. H. Prange, 228 Fowler St., (17) $15,156; Kehrein Constr. Co., 839 7th St., (11) $2,773.

★**Minn., Hibbing**—City let contract building 20,000 sq.yd. bitulithic pavement on concrete base, to E. W. Coons Co., Hibbing, $5.75 per sq.yd.

★**Kan., Newton**—City let contract paving 21,500 sq.yd. Main St. from 15th to 8th Sts., and 11,029 sq.yd. 6th St. from Sand Creek to Poplar St., involving 3,600 lin.ft. combined concrete curbing and guttering, to Kaw Paving Co., 609 N. E. Bldg., Topeka, $74,500 and $44,000 respectively.

★**Kan., Pittsburg**—Crawford Co. let contract grading and building concrete bridges on 14¼ mi. Pittsburg-Arma Rd., Federal Aid Project 39 and 40, 18 ft. wide, to Independent Constr. Co., Pittsburg, Joplin Steel Constr. Co., Joplin, Mo., and A. L. Cook, Ottawa, total $265,000; concrete paving and building bridge on 12 mi. Arma-Bourbon Rd., 18 ft. wide, to A. L. Cook, Ottawa, $200,000.

★**Mo., Keytesville**—Chariton Co. let contract grading, building culverts and wooden guard rail on 1.13 mi. Sect. 1 road from Mussell Fork Creek, westward, also .06 mi. Sect. 2 road from Chariton River, southeast, to C. Parker, Keytesville, $36,908. Noted Oct. 28, under "Missouri."

★**Tex., Dallas**—City let contract paving 4,000 ft. Martin St. from McKinney to Bryan Sts., involving 4,000 lin.ft. combined concrete curb and gutter, 20,000 sq.yd. bituminous macadam on concrete base, to Texas Bitulithic Co., 1101-6 Praetorian Bldg., $60,242; lowering grade of Maple Ave. and Fairmont St. under Missouri, Kansas & Texas Ry., involving 10,000 cu.yd. earth excav. and 25,000 cu.yd. concrete, to Klein Bros., Junius and Walton Sts., and Vilbig Bros., 1709 Jackson St., $157,417.

★**Tex., Dallas**—Property owners of Highland Park let contract surfacing 1 mi. Preston Rd. from city limits to Beverly Drive, involving 20,000 sq.yd. asphalt on concrete base, to Texas Bitulithic Co., 1101-6 Praetorian Bldg. About $100,000. Noted July 1.

Tex., El Paso—El Paso Co. received bids grading and draining 12.6 mi. Highway 1 Fabens Rd., from Lee-Moor Contg. Co., Two Republics Bldg., $46,228; J. C. Wright, 3711 Bisbee St., 47,243; El Paso Co., c/o J. B. McClintock, co. judge, $47,280. Work involves 486 cu.yd. Class "A" concrete, 32,418 lb. reinforcing steel, 68,650 cu.yd. embankment rolling, 89,869 cu.yd. overhaul and 104,754 cu.yd. earth excav. Noted June 3.

★**Tex., Jourdanton**—Atascosa Co. let contract topping with trap rock cover and 1 in. rock asphalt, 13.5 mi. Highway 9, Puget Sound-Gulf Highway, involving 118,788 sq. yd. bituminous macadam, to Haden & Austin, 727 Kress Bldg, Houston, $74,154; including 10% for engineering and contingencies.

★**New Mexico**—State Highway Dept., Capitol Bldg., Santa Fe, let contract building 15.157 mi. road between Magdalena and Datil, Federal Aid Project 42, Socorro Co., to F. Croxton, Guymon, Okla., $50,707, (exclusive of 10% for engineering and contingencies). Noted Sept. 30.

★**Arizona**—State Highway Dept., Phoenix, let contract building Sect. 2, Douglas-Rodeo Highway, Federal Aid Project 38, 20 ft. wide, Cochise Co., to D. La Roe, Palestine, Tex., $130,467. Noted Sept. 30.

★**Arizona**—State Highway Dept., Phoenix, let contract surfacing 3.718 mi. Sect. 3 Holbrook-St. Johns Highway (Petrified Forest), involving 6,543 cu.yd. surfacing, to J. P. Richards, St. Joseph, $10,409.

★**Wash., Prosser**—City let contract grading and paving 3 mi. various streets, to Yakima Paving Co., Yakima, $114,000.

Wash., Seattle—City received bids Oct. 15, building concrete walks on Westlake Ave. et al, involving 8,286 cu.yd. earth excav. and 8,260 sq.yd. concrete walks, from D. H. Traphagen, Walker Bldg., $29,001, F. McLellan, 1720 16th Ave. N., $29,867, Hansen & Hauge, Green Bldg., $30,541; paving, filling, etc., Seattle Blvd., et al, involving 10,720 sq.yd. vitr. brick, 10,760 sq.yd. concrete and 65,000 cu.yd. (a) clay pipe, (b) concrete pipe, from S. A. Moceri, Alaska Bldg., (a) $190,981 (b) $190,981, Kaiser Paving Co., 304 West 36th St., (a) $197,196, (b) $197,196, Stewart Constr. Co., Amer. Bank Bldg., (a) $202,743, (b) $202,543.

Cal., Santa Ana—Orange Co. let contract improving Tustin Ave., Wanda Rd., Lincoln St. and Center Drive, to B. R. Ford, Santa Ana, $83,772.

★**Ont., Brampton**—City let contract for 11,177 sq.yd. Warrenite bithulithic pavement, to Warren Bituminous Paving Co., McKinnon Bldg., Toronto.

★**Ont., Port Stanley**—Town Council let contract building 1 mi. tarvia pavement and cement sidewalks, to A. E. Ponsford, 605 Talbot St., St. Thomas. About $25,000.

★**Ont., Toronto**—City let contract for 7,712 sq.yd. Warrenite-bitulithic pavement on concrete foundation, to Warren Bituminous Paving Co., McKinnon Bldg.

Railways

PROPOSED WORK

North Carolina—State Building Com., Raleigh, plans to build 1¼ mi. standard road in city of Chapel Hill from depot on Southern Ry. to University Power House. About $50,000. H. A. Underwood, c/o State Bldg. Comn., ch. engr.

North Carolina—North Carolina Ry. R.R. Co. plans to build 75 mi. standard gauge railroad from Charlotte to Winston-Salem. A. S. Mowry, c/o Simmons Cotton Co., Charlotte, ch. engr.

North Carolina—New Holland, Higgins port & Mt. Vernon R.R. Co., New Holland, recently chartered plans to build 30 mi. standard gauge railroad from New Holland to Wenona.

Excavation and Dredging

PROPOSED WORK

Wis., Burnett—Drain—Burnett Farm D. 1, c/o L. S. Keeley, secy., Mayville, having plans prepared by L. M. Schinde, engr., 721 Clark St., Appleton, for 37,000 ft. large tile drain, here. About $50,000.

Wash., Seattle—Dredging Bd. Pub. Wks. soon receives bids dredging east slip of Pier A, Smiths Cove, for filling Elliott Ave., involving 200,000 cu.yd. dry earth excav. A. H. Dimock, Seattle, engr.

Cal., San Diego—Irrigation—H. R. Peckham applied to State Water Comn., Sacramento, for permission to use water from Pauma Creek for irrigation purposes. Plans include concrete dam and 4 mi. ditch. About $100,000.

BIDS DESIRED

Minn., Jackson—Until Nov. 9, by P. D. McKellar and Jackson Co., building Judicial Ditch 45, involving 82,400 ft. 6-28 in. tile, 2,711 cu.yd. open work, etc., cost $71,000; Ditch 13, 12,000 ft. 6-16 in. tile, etc., $5,933; Ditch 74, 61,800 ft. 6-30 in. tile, etc., $54,118; Ditch 75, 68,500 ft. 6-36 in. tile, 2,266 cu.yd. open work, etc. $71,863.

PRICES AND CONTRACTS AWARDED

(★ Indicates Award of Contract)

★**N. Y., New York**—Dredging—M. Hulbert, comr. Docks, Pier "A," ft. of Battery Pl., let contract dredging piers at foot of Stanton, East 5th, East 20th, East 25th and West 35th Sts., to Morris & Cummings Dredging Co., 17 State St., $111,685. Noted Oct. 21.

★**Ia., Atlantic**—Drainage—Cass Co. let contract building 7 mi. drainage project in Bear Creek and Noble Twps., involving 388,000 cu.yd. excav., to Callahan-Walker Constr. Co., 222 Bee Bldg., Omaha, Neb. About $81,000. Noted Sept. 30.

★**Ia., Red Oak**—Ditch—Bd. Supervs. Montgomery Co. let contract building 5.5 mi. open ditch in D.D. 5, to F. C. Scheree, Red Oak. Noted Oct. 7.

Industrial Works

PROPOSED WORK

N. H., Tilton—Genl. Optical Co., 256 Washington St., Mt. Vernon, N. Y., having plans prepared by Woodwell & Resler, engrs. and archts., 501 5th Ave., New York City, for rein.-con., brick and steel addition to plant, rein.-con. flooring, concrete foundation. About $50,000.

Mass., Norwood—G. M. Lepper, Washington St., plans to build brick and concrete garage. About $50,000. Architect not selected.

Mass., Palmer—Thorndike Co. plans to build 3 story, 120 x 300 ft. brick and steel dye house. About $350,000. Leary & Walker, Times Bldg., New Bedford, engrs.

Mass., Worcester—Conroy Motor Co., 671 Main St., rejected bids and will have revised plans prepared for 2 story, 87 x 145 ft. concrete, brick and steel garage, on Murray Ave. and Wellington St. About $100,000. A. F. Gray, 53 State St., Boston, archt. Noted Oct. 7.

Conn., Portland—Wilcox Crittenden & Co., Inc., 8 South Main St., Middletown, plans to build 1 story, rein.-con. foundry, here. Architect not selected.

N. J., Newark—New York Auto Top Co., 262 Halsey St., having plans prepared by Bachoff, Jones & Cook, archts., 9 Clinton St., for 2 story, 26 x 118 ft., rein.-con. factory, on Astor and Broad Sts. About $50,000.

Pa., Williamsburg—B. W. Mosteller, East Liberty, purchased 3 story, 50 x 104 ft. brick building, rein.-con. flooring, on 4th St., here, and plans to rebuild and equip same as ice cream plant. About $75,000.

Industrial Works (Continued)

Ia., Spirit Lake—Western Electric Co., plans to rebuild plant. About $100,000.

N. C., Greensboro—Peidmont Ice & Coal Co. plans to build ice plant. About $75,000.

N. C., Newton—Newton Ice & Fuel Co. plans to remodel ice plant, etc. About $50,000. J. M. Wagoner, Newton, engr.

N. C., Red Springs—City plans to build electric lighting system. About $50,000. G. C. White, Durham, engr.

N. C., Wilmington—Fisheries Products Co. plan s to build fertilizer plant. About $1,000,000.

N. C., Wilmington—Simmons Mfg. Co., Goldsboro, plans to build factory, here. About $200,000. Architect not selected.

Fla., Jacksonville—Wilson-Toomer Fertilizer Co., Viaduct, plans to rebuild plant. About $1,000,000. N. M. G. Prange, mgr.

La., New Orleans—G. B. Matthews & Son, 420 South Front St., plans to build 3 story, concrete and steel factory. About $300,000. Architect not selected.

O., Cleveland—J. A. C. Broom & Brush Co., 2339 East 89th St., plans to build 2 story, 50 x 100 ft., brick and steel factory, brick foundation. About $40,000. L. H. Joy, mgr. Architect not selected.

O., Cleveland—Malay Rubber Co., c/o C. Blatz, 1035 Guardian Bldg., plans to build 3 story factory, concrete, brick and steel, rein.-con. flooring, concrete foundation, at East 172nd St. and St. Clair Ave. About $100,000. Architect not selected.

O., Hamilton—Champion Coated Paper Co. plans to build fertilizer plant. About ft. rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on west side. About $100,000. F. H. Smith, Inc., Reibold Bldg., Dayton, archt.

O., Youngstown—Reserve Iron & Steel Co. plans to build 2 blast furnaces and 2,000,000 ton puddling plant. About $1,000,000.

Mich., Brighton—Grove Motor Co. plans to build 1 story, 80 x 200 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation. About $50,000. W. C. Boyer, Brighton, archt.

Wis., Drummond — See "Industrial Works."

Tex., San Antonio—Southern Ice & Cold Storage Co. plans to build 20,000 ton ice storage warehouse. About $250,000. M. Postlewaite, mgr.

Col., Greeley—Colorado Milling & Elevator Co., 1441 7th St., Denver, having plans prepared for 600 bbl. flour mill, concrete and steel, concrete foundation. About $350,000. Private plans.

Ont., London—Harris Abattoir Co., Union Stock Yards, Toronto, plans to build rein.-con. and brick abattoir on Talbot St. About $100,000. Architect not selected.

Ont., Toronto—Crouse Hinds Co., and Harvey-Hubbell Co., 7 Labatt Ave., and Hubbell Mack Machine Screws Co., plans to build 3 story, concrete, brick and steel factory, concrete flooring and foundation, on Coxwell Ave. About $500,000.

BIDS DESIRED

Mass., Worcester—B. E. Geckler, archt., 335 St. James Ave., Springfield, receiving bids building 3 story, 60 x 120 ft. ice cream plant, concrete and steel, rein.-con. flooring, concrete foundation, on Shrewsbury St., here, for Tait Bros., Cass St., Springfield. About $75,000.

N. Y., Dunkirk—Thomas Flexible Coupling Co. receiving bids building 1 story, 40 x 200 ft., concrete, brick and steel factory, brick and concrete foundation. About $50,000. Private plans.

N. Y., New York—Until Nov. 11, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., constructing housing stations for Dept. Street Cleaning, on Canal, West and Springs Sts., 17th St. and Ave. C, and on Rivington, Tompkins and Mangin Sts.

Pa., Cresson—Penn-Cress Ice Cream Co. receiving bids building 2 story, 48 x 91 ft., brick and steel plant, rein.-con. flooring, on Park Ave. About $50,000. Mc ormick Co., Century Bldg., Pittsburgh, archt. Noted Oct. 21.

Pa., Phila.—Until Nov. 9, by Clark & Dudnick, archts. and engrs., Drexel Bldg., constructing 1 story, 50 x 80 ft. and 50 x 98 ft. foundry and woodworking shop, brick, steel and iron, on 42nd and Walnut Sts. Owner's name withheld.

O., Cleveland—H. W. Morgan, 637 Bway., receiving bids building 2 story, 50 x 110 ft., brick and steel warehouse, brick foundation, at 1108 Central Ave. About $75,000. J. F. Steffins, Citizens Bldg., archt.

O., Cleveland Heights (Warrensville P. O.)—Until Nov. 24, by Bd. Educ., building 2 story, 50 x 67 ft. concrete, brick and steel power plant, rein.-con. flooring, concrete foundation, on Lee Rd. About $100,000. F. C. Warner, Hippodrome Annex Bldg., archt. L. A. Quayle, 1455 West 98th St., Cleveland, engr. Noted Aug. 26.

Ind., Elkhart—Wawasee Tire & Rubber Co. receiving bids building 4 story, 175 x 175 ft., rein.-con., brick and steel factory, rein.con. flooring. About $500,000. R. L. Simmons, Elkhart, archt.

Ill., Chicago—New Way Laundry, c/o Ronneberg, Pierce & Hauber, archts., 10 South La Salle St., receiving bids building 2 story, 64 x 152 ft., brick, rein.-con. and terra cotta laundry, rein.-con. flooring, concrete foundation, on Montrose and Francisco Sts. Abut $100,000.

Ill., Chicago—Levy & Klein, archts., 111 West Washington St., receiving bids building 1 story, 75 x 150 ft., brick and timber addition to garage, concrete foundation, at 3847 Wabash Ave., for U. S. Auto Supply Co., 3845 South Wabash Ave. About $45,000.

Wis., Fond du Lac—Sheyboygan Dairy Products Co., 936 North Water St., receiving bids building 2 story, 112 x 160 ft., brick, rein.-con. and steel factory, brick foundation, on West Division St. About $100,000. B. E. Mehner, 6 East Division St., archt. Noted Oct. 21.

Kan., Ottawa—See "Waterworks."

Tex., Waco—Bd. Trustees Methodist Orphanage, c/o E. McCullough, Herring Ave., receiving bids building dairy barn and heating plant. About $45,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Conn., Hartford**—Bd. Contract & Supply let contract building 2 story, 50 x 125 ft. concrete and brick machine shop, rein.-con. flooring, concrete foundation, on John St., to T. F. Garrity, 32 East Raymond St., $76,729. Noted Oct. 27.

★**Conn., Hartford**—New Haven Dairy Co., 201 Hazel St., New Haven, let contract building 3 story, 150 x 210 ft. concrete and brick plant, rein.-con. flooring, concrete foundation, on Walnut St., to M. S. Gibbud Co., 730 Chapel St., New Haven. About $125,000.

★**Conn., Hartford**—Travelers Insurance Co., 700 Main St., let contract building concrete, brick and steel printing plant, rein.-con. flooring, concrete foundation, on Albany Ave., to M. Eidlitz, 30 East 42nd St., New York City. About $1,000,000. Noted Oct. 21.

★**Conn., New Haven**—New Haven Dairy Co., 201 Hazel St., let contract building 2 story, 70 x 150 ft. concrete, brick and steel garage, rein.-con. flooring, concrete foundation, to M. J. Gibbud Co., 730 Chapel St. About $80,000.

★**N. Y., Brooklyn** — Dept. Plants & Structures, Municipal Bldg., New York City, let contract constructing housing station for Dept. Street Cleaning, on Water, Dock and Front Sts., to P. T. Cox Contg. Co., 154 Nassau St., New York City, $263,700. Noted Sept. 23.

★**N. Y., Brooklyn**—Grand Corrugated Paper Co., 30 Crosby St., New York City, let contract altering rein.-con., brick and steel factory, rein.-con. flooring, on 32nd St., here, to Gabler Constr. Co., 402 Hudson St., New York City. Noted Oct. 7.

★**N. Y., Brooklyn**—H. Jenkins, 550 73rd St., will build 1 story, 100 x 150 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 39th St. About $45,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Linn-Coop Corp., c/o B. Driesler, archt. and engr., 153 Remsen St., will build 1 story, 100 x 200 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on 35th St. near 4th Ave. About $75,000. Work will be done by day labor.

★**N. Y., Brooklyn**—F. Richards, 3337 Atlantic Ave., will build 1 story, 95 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation. About $90,000. Work will be done by day labor.

★**N. Y., New York**—Dept. Plant & Structures, Municipal Bldg., let contract constructing housing station for Dept. Street Cleaning, on Henry, Madison and Birmingham Sts., to Wolfman & Greenbaum, 1043 Pacific St., Brooklyn. About $112,000. Noted Oct. 28.

★**N. Y., New York**—E. Stevens, c/o Dunnigan & Crumley, archt. and engr., 394 East 150th St., will build 1 story, 50 x 170 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Walton Ave. About $45,000. Work will be done by day labor.

N. Y., S. I., West New Brighton—Dept. Pub. Welfare, Municipal Bldg., New York City, received bids Oct. 29, constructing addition to boiler house, at Sea View Hospital, here, from G. Colon Co., 81 East 125th St., New York City, $41,513; M. McDonald, $49,000. Noted Oct. 21.

★**Pa., Phila.**—J. J. Greenberg, Morris Bldg., let contract altering 4 story, brick and steel factory, on 23rd and Locust Sts., to Wark & Co., 1737 Filbert St. About $50,000. Cadillac Motor Co., lessee.

★**Pa., Phila.**—Harbisons Dairies, Front and Diamond Sts., let contract building 2 story, 80 x 196 ft., dairy plant and boiler house, brick, on Hunting Park and Torresdale St., to Barclay-White & Co., 1713 Sansom St. About $240,000.

★**W. Va., Huntington** — International Nickel Co., 43 Exch. Pl., New York City, will build rolling mill plant, rein.-con. and steel, rein.-con. flooring, concrete foundation, here. About $3,000,000. Work will be done by day labor under supervision of W. L. Wotherspoon, archt. and engr., 43 Exch. Pl., New York City.

★**O., Cleveland**—Folding Box Co., 1900 West 3rd St., let contract building 1 story, 100 x 250 ft., brick and steel factory, to Bolton-Pratt Constr. Co., Columbia Bldg. About $100,000. Noted Oct. 28.

★**O., Cleveland**—Globe Motors Co., c/o C. H. Davies, 1132 Guardian Bldg., let contract building 1 story, 100 x 500 ft., brick and steel factory, brick foundation, on Chardon Rd., to S. W. Emerson Co., 1900 Euclid Ave. About $300,000. Noted Sept. 30.

★**O., Cleveland**—H. O'Neil, 1330 Oregon Ave., let contract building 1 story, 60 x 120 ft., brick and steel garage, brick foundation, on Oregon Ave., to V. Piscobo, Murray Hill Rd. About $50,000.

★**O., Sidney**—Wagner Mfg. Co. let contract building 1 story, 80 x 180 ft., brick and steel foundry, brick foundation, to Dannis-Hunt Co., 1st and Webb Sts. About $75,000. Noted Oct. 7.

★**Ind., Richmond**—Richmond Baking Co. let contract building 5 story, 50 x 125 ft., bakery, rein.-con. and steel, to L. Colvin, 4140 Ruckle St., Indianapolis. About $175,000; cost plus percentage basis.

★**Wis., Fond du Lac**—P. Gerhard Baking Co., 22 North Main St., let contract building 2 story bakery, to Hutter Constr. Co., 128-136 Western Ave. About $60,000. Noted April 20.

★**Minn., Fridley**—Walsh Tie Co., 954 McKnight Bldg., Minneapolis, let general contract building creosoting plant, including 1 story office building, factory, powder-house, bunk houses, etc., to C. F. Haglin & Sons, 226 Lumber Exch., Minneapolis; grading and excavating site, to J. L. Shiely Co., 6th and St. Peter Sts., St. Paul. Total cost, $300,000.

★**Kan., Pittsburg**—F. C. Werren and M. E. Coffey let contract building 2 and 3 story, 100 x 108 ft. garage on 4th and Locust Sts., to J. D. Stalker, 318 North Bway. About $85,000.

★**Tex., Dallas**—Lincoln Paint & Color Co., Detroit, Mich., let contract building 2 story, 140 x 180 ft., brick factory, concrete flooring, on Kentucky St. and Ash Lane, here, to E. R. Sessums & Sons, Detroit. About $66,500.

Wash., Seattle—School Bd. let contract constructing 3 story, 126 x 250 ft. concrete building to hous- warehouse, shops, etc., to Puget Sound Bridge & Dredging Co., Central Bldg., $247,380.

★**Cal., Anaheim**—Anaheim Citrus Fruit Assn. will build 1 story, 100 x 132 ft. packing house, concrete and tile. About $75,000. Work will be done by day labor.

SEWERS

Buildings

PROPOSED WORK

N. H., Berlin—Bank—Berlin Natl. Bank, Main St., plans to build concrete, steel and stone. About $75,000. Architect not selected.

Mass., Attleboro—Town Hall—Town plans to build stone and steel memorial. About $200,000. Kilham & Hopkins, 9 Park St., Boston, archts.

Buildings (Continued)

Mass., Roxbury (Boston P. O.)—Theatre—D. H. Brand, 16 Piedmont St., plans to build 2 story, concrete, brick and steel. About $150,000. Funk & Wilcox Co., 1148 Old South Bldg., Boston, archts.

Mass., Springfield—Temple—Masonic Hall Assn., Masonic Bldg., having plans prepared for rein.-con. and brick, on State St. About $750,000. E. A. Bladgett, pres. Architect not announced.

Mass., Watertown (Boston P. O.)—High School—Town plans to build 3 story, concrete, brick and steel, on Waverly St. About $250,000. Ashton & Huntress, Essex Bldg., Lawrence, archts.

Conn., Beacon Falls—School—Town plans to build 2 story, brick and steel. About $75,000. Architect not selected.

Conn., Bridgeport—Bank—Newfield Bank & Trust Co., 1200 Seaview Ave., plans to build 1 story, stone, brick and steel, on Stratford and Union Aves. About $75,000. Architect not selected.

Conn., Danbury — Hospital — Danbury Hospital, Locust Ave., plans to build 3 story, rein.-con. and brick addition. About $300,000. Lord & Hewett, 345 5th Ave., New York City, archts.

Conn., Hartford — Office — Connecticut Genl. Life Insurance Co., 64 Pearl St., having plans prepared by J. G. Rogers, archt. and engr., 367 Lexington Ave., New York City, for 6 story, brick and stone, stone foundation, on Elm St.

Conn., New Britain—Bank—Commercial Trust Co., 274 Main St., plans to build brick, stone and steel, on West Main and Washington Sts. About $250,000. A. Hopkins, 101 Park Ave., New York City, archt.

Conn., New Canaan—Theatre—Colonial Theatre, Main St., plans to build 3 story, 60 x 100 ft., concrete, brick and steel. About $100,000. Architect not selected.

Conn., Norwich—High School—Bd. Educ. plans to build 3 story high school. About $300,000. Architect not selected.

Conn., Stafford Springs—Theatre and Business— H. Hall, South Willington, plans to build 3 story, rein.-con. and brick, on Park and Mitchell Sts. About $125,000. A. R. Sharpe, 125 Chestnut St., Willimantic, archt.

Conn., Wallingford—Bank—First Natl. Bank, South Main St., having plans prepared by P. W. Foote, archt., 185 Church St., New Haven, for 1 story, concrete, brick and steel, on Main and Center Sts. About $100,000.

Conn., Waterbury—Church—Immaculate Conception Roman Catholic Church, 97 East Main St., had plans prepared by J. A. Jackson, archt., 1123 Bway., New York City, for 1 story, brick and steel. About $200,000.

Conn., Waterbury—School—St. Margarets Schools, Grove and Cook Sts., plans to build 3 story, brick and steel addition. About $100,000.

N. Y., Albany—Capitol—State Bd. Estimates soon receives bids remodeling room; to be used for placing flags carried in the World War. About $300,000. L. F. Pilcher, state archt.

N. Y., Bath—School—Bd. Educ. had plans prepared by Lewinsohn & Shubert, archts. and engrs., 366 5th Ave., New York City, for brick and stone, brick foundation, here. About $150,000.

N. Y., Brooklyn—School—Bd. Educ., 500 Park Ave., New York City, having plans prepared by C. B. J. Snyder, archt. and engr., Municipal Bldg., New York City, for P. S. 54, 5 story, 125 x 197 ft., brick, steel and stone, concrete foundation, on Sandford St. near De Kalb Ave., here. About $750,000.

N. Y., New York—Hospital—Missionary Sisters of Sacred Heart, c/o St. Lawrence Hospital, 457 West 163rd St., plan to build 6 story, 105 x 228 x 244 ft., brick and stone, brick foundation, on Edgecombe Ave. between 163rd and 164th Sts. Architect not selected.

N. Y., New York—Institution—New York Institution for Education of Blind, 9th Ave. and 33rd St., plans to construct seven 2½ story, brick and stone buildings, brick foundations, on Williamsbridge Rd., Bronxwood Ave., Bronx and Pelham Parkways. McKim, Mead & White, 101 Park Ave., archts. and engrs.

N. J., Atlantic City—Fire House—City opens bids about Nov. 6, building 3 story, brick and stone, brick foundation. About $250,000.

Pa., Altoona—Cathedral—J. J. McCort, bishop of Catholic Diocese, 1211 13th St., plans to build 2 story, 100 x 150 ft., stone, rein.-con. and steel, on 12th Ave. About $1,000,000. Architect not selected.

Pa., Altoona—Church—Broad Ave. Methodist Church plans campaign to raise $75,000 to build 2 story, 100 x 120 ft., brick and steel. Address J. K. Knisley. Architect not selected.

Pa., Altoona—Lodge—Knights of Columbus, Council No. 551, 1500 12th Ave., plans to build 3 story, 100 x 100 ft., rein.-con., brick and steel, on 12th Ave. and 15th St. About $150,000. Architect not selected.

Pa., Clifton Heights—School—Bd. Educ. having plans prepared by Folsom & Stanton, archts. and engrs., 1328 Walnut St., Phila., for 2 story, 30 x 100 ft., brick and stone. About $100,000.

Pa., Franklin — Bank — Franklin Exch. Natl. Bank soon receives bids building 3 story, 100 x 100 ft. addition, brick and stone, brick foundation. W. L. Stoddart, 9 East 40th St., New York City, archt.

Pa., Phila.—Hotel and Stores—Hotel Walton Co., Broad and Locust Sts., having plans prepared by A. M. Gray, archt. and engr., 1402 Bway., New York City, for 20 story, 70 x 130 ft., brick, steel and stone, concrete foundation, on Broad St., here. About $1,700,000.

Md., Baltimore—Synagogue—S. Russell, archt., 111 East Lexington St., opens bids about Nov. 15, building 1 and 2 story, 70 x 105 ft., concrete, granite and brick, cement flooring, concrete foundation, on Madison Ave. near Whitelock St., for Mishken Israel Congregation. About $150,000.

Md., Cambridge — Theatre — Cambridge Amusement Co., Fidelity Bldg., Baltimore, plans to build 2 story, concrete, brick and steel, here. About $100,000. H. W. Webb, Pres. O. B. Wight, 1101 Munsey Bldg., Baltimore, archt.

Va., Winchester — School — Estate of Judge Handley, c/o F. E. Clark, having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., Cleveland, for 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $1,000,000. S. H. Edwards, associated archt.

Fla., Clearwater—Theater—J. S. Taylor having plans prepared by L. Avery, archt., Clearwater, for 2 story, 74 x 175 ft. rein.-con. About $75,000.

Fla., Ft. Myers—Hotel—P. Schutt and associates, Bradford Hotel, having plans prepared by F. J. Kennard, archt., Amer. Bank Bldg., Tampa, for 5 story hotel with 3 wings, to contain 220 rooms, rein.-con., brick and steel, rein.-con. flooring, on McGregor Blvd., here. Cost between $400,000 and $500,000.

Fla., Pensacola — Exchange — Southern Bell Telephone Co., 14 East Romana St., plans to build new exchange. Cost including equipment, about $200,000. J. T. Peele, mgr.

Ala., Birmingham — Home, etc. — Loyal Order Moose receives bids about Jan. 1 constructing "City of White Cottages" for aged, including administration buildings, etc. Above project when completed (on 5 year program) will cost $1,000,000. J. J. Davis, Farmers' Bank Bldg., Pittsburgh, Pa., Director General.

Tenn., Kingsport — Housing — Kingsport Farms Co., Inc., having plans prepared by Litchfield & Rogers, engrs., 2 East 41st St., New York City, for several rein.-con., brick and steel houses, brick foundations. About $100,000.

O., Cincinnati — Club — Business Men's Club, 9th and Race Sts., having plans prepared by S. Hannaford & Sons, archts., 6th and 9th Sts., for 9 story, 150 x 200 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on 8th and Race Sts. About $1,000,000.

O., Cleveland—Bank and Commercial—Garfield Savings Bank Co., c/o J. M. O'Dell, 322 Euclid Ave., plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on St. Clair Ave. About $75,000. Architect's name withheld.

O., Cleveland—Commercial—S. Barker Son Co., 2034 East 4th St., plans to build 4 story, 50 x 120 ft. addition, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Prospect Ave. near East 8th St. About $200,000. C. E. Tousley, 4500 Euclid Ave., archt.

O., Cleveland—Commercial and Cleveland Democratic Club, c/o Federal Bldg., plans to build 3 story, crete, brick and steel, rein.-con. concrete foundation, at 1393 East 1 About $100,000. W. S. Longee, M Bldg., archt.

O., Elyria—Commercial and Theat Zadaris having plans prepared by Janowitz, archt., Permanent Bldg., land, for 1 story, 45 x 162 ft., rein brick and steel, rein.-con. flooring, and concrete foundation, on Broad About $100,000.

O., Lakewood (Cleveland P. O.)—Sch Bd. Educ., Warren Rd., plans to Roosevelt School, 2 story, 12 room con., brick and steel, rein.-con flo brick and concrete foundation. A $250,000. C. W. Hopkinson, 900 Rose archt.

Ind., Decatur—Amphitheatre—F. Ben having plans prepared by O. Hoffm archt., Decatur, for 2 story, 60 x 150 rein.-con., brick and steel, rein.-con. flo ing. About $100,000.

Ind., Ft. Wayne—High School—Bd. Tru tees had plans prepared by Griffith Goodrich, archts., Physicians Defense Blds for 3 story, 211 x 230 ft., rein.-con. brick, on Calhoun St. About $1,000,000 See item under "Prices and Contracts Awarded."

Mich., Cadillac—Hospital—Mercy Hospital having plans prepared by E. Brielmaier & Sons, archts. and engrs., University Bldg Milwaukee, for 3 story, rein.-con. and brick addition, rein.-con flooring, concrete foundation. About $100,000.

Mich., Grand Rapids—Church—E. Brielmaier & Son, archts., University Bldg., Milwaukee ,preparing preliminary plans for brick, concrete and steel, concrete flooring and foundation. About $150,000. Owners name withheld.

Ill., Chicago—Hall and Store—B. L. Steif, archt., 30 North La Salle St., preparing plans for 2 story, 125 x 150 ft., brick, steel and terra cotta, concrete foundation About $200,000. Owners name withheld

Ill., Chicago—Temple—Temple Judea, c/o Ludgin & Leviton, archts., 53 West Jackson St., having plans prepared for 1 story, 90 x 105 ft., brick, stone and steel, concrete foundation, on Independence Blvd. and Roosevelt Rd. About $200,000.

Ill., Chicago—Theatre—Cohen & Harris, 226 West 42nd St., New York City, having preliminary plans prepared by A. N. Rebori, archt., 410 South Michigan Ave., for 1 story, 100 x 135 ft., steel and tile, at 121 North Clark St., here. About $400,000. Noted June 17.

Ill., Waukegan — Store and Office — Shepherd & Memmler, archts., 1035 36th St., Milwaukee, Wis., opens bids in spring, building 3 story, 25 x 110 ft., brick, concrete foundation, for N. Conrad. About $75,000.

Wis., Clintonville — Hotel — Chamber of Commerce had preliminary plans prepared by Brown & Snook, archts., Neenah, for 3 story, 92 x 100 ft., brick, rein.-con. and tile About $150,000. R. Fisher, secy.

Wis., Drummond—Bank—See "Miscellaneous."

Wis., Shorewood (Milwaukee P. O.)—High School—School Bd. having plans prepared by R. A. Messmer & Bro., archts and engrs., Majestic Bldg., Milwaukee, for 2 story, concrete and brick addition, rein.-con. flooring, concrete foundation, on Atwater St. About $75,000. Noted Sept. 30.

Ia., Council Bluffs—Hospital—Women's Christian Assn. having plans prpared by J. C. Jensen, archt., 305 West Bway., for 3 story, rein.-con. and brick addition to Jennie Edmundson Hospital. About $350,000. E. Lucas, chn.

Ia., Mason City—Hospital—North Iowa Lutheran Hospital Assn. plans to build 4 story, rein.-con. and brick addition, on 3rd St. and Georgia Ave. N. E. About $300,000 R. Vordale, secy. Architect not announced

Minn., Aitkin—Court House—Bd. Comrs Aitkin Co. plans to build rein.-con. and brick here. About $250,000. Architect not selected.

Minn., Cohasset—School—Bd. Educ., c/o H. J. Snyder, clk., plans to build 2 story rein.-con. and brick. About $75,000.

Minn., Hackensack—School—Bd. Educ., c/o R. F. Ross, clk., rejected bids received Oct. 15, building 2 story, 95 x 102 ft. rein.-con. and brick. Noted Oct. 28.

Buildings (Continued)

Kan., Kansas City—Hotel—Uhls & Holbeck soon receive bids remodeling present building and constructing 3 story, 150 x 150 ft. addition, rein.-con., steel and brick, rein.-con. flooring, on 6th and Ann Sts. About $600,000. Hoit, Price & Barnes, 607 Reliance Bldg., Kansas City, Mo., archts. Noted Oct. 7.

Kan., Pittsburg—Memorial—City plans to build memorial hall. About $250,000. Architect not selected.

N. D., Grand Forks — College — Wesley College plans to build memorial hall, chapel, service halls and residence. About $750,000.

Mont., Butte—School—School Dist. 1, Silver Bow Co., election Nov. 13, to vote on $525,000 bonds to build school.

Cal., Long Beach—Theatre and Office—Lineberger, Hite & Lineberger having plans prepared by Walker & Eisen, archts., 1403 Hibernian Bldg., Los Angeles, for 3 story, 50 x 150 ft., rein.-con. and steel, tile and cement flooring, on American Ave. About $110,000.

Cal., San Francisco — Office — Hobart Estate, Merchants Exch. Bldg., had preliminary plans prepared by Willis-Polk & Co., archts., Hobart Bldg., for extending Hobart Bldg. through to Sutter St., and building 22 story tower. E. J. McCutcheon, mgr.

Cal., San Francisco—Store and Loft—J. Fitzhugh, Mills Bldg., had plans prepared by Reid Bros., archts., California-Pacific Bldg., for 3 story, terra cotta, on Post St. near Stockton St. About $100,000.

Que., Montreal—Church—Syrien Roman Catholic congregation c/o P. Nasre, 434 Laganchetiere St., receives bids in December, building 3 story, 50 x 75 ft. concrete, brick and steel, concrete foundation, on Laganchetiere St., E. About $125,000. W. P. Dufort, 195 St. Catharine St., E., archt.

Ont., Hamilton—School—R. H. Foster, secy. treas. Bd. Educ., receives bids about Nov. 11, building 2 story, 8 room, concrete, brick and tile, rein.-con. flooring, concrete foundation. About $125,000. W. G. Brown, Provident Loan Bldg., archt.

Ont., London—E. T. Jenkins, Y. M. C. A., 429 Wellington St., plans to build brick and steel, rein.-con. flooring, concrete foundation. About $300,000. Architect not selected.

BIDS DESIRED

★**Mass., Holyoke** — Church — Perpetual Help Roman Catholic Church, 51 Fountain St., receiving bids building 1 story, 70 x 185 ft. brick and steel, concrete foundation, on Chestnut and Elm Sts. About $150,000. L. J. Carone, Nicolet, Quebec, Can., archt.

Conn., Thompsonville — School — Until Nov. 9, by Town of Enfield, building 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on North Main St. About $130,000. I. A. Allen, Jr., Inc., 904 Main St., Hartford, archt.

Pa., Bethlehem—Schools—Until Nov. 10, by Bd. Educ., for carpentry and plastering work on 2 story, 176 x 185 ft., on Union and 8th Sts., also 3 story, 170 x 255 ft., on 4th and Pierce Sts. Total cost $450,000 and $400,000 respectively. V. T. Ritter, North Amer. Bldg. Phila., archt.

O., Cuyahoga Falls—Exchange — Central Union Telephone Co., receiving bids building 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $100,000. A. P. Dippold, 4747 Cottage Grove Ave., Chicago, archt.

Ind., Gary—Store—J. M. LeVee, archt., Gary, receiving bids building 3 story, 50 x 175 ft., brick and stone. About $100,000. Owner's name withheld.

Minn., Duluth—Church—Until Nov. 20, by H. Olson, chn. bldg. com., constructing 2 story, 75 x 135 ft. rein.-con., brick and steel, rein.-con. flooring, and foundation, on 2nd St. between 26th and 27th Ave. W., for 2nd Presbyterian Church. About $125,000. Holstead & Sullivan, 410 Palladio Bldg., archts.

Minn., Hibbing—Temple—Until Jan. 2, by Trustees of Hibbing Masonic Lodge, building 2 story, 75 x 120 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Howard St. and 4th Ave. About $135,000. Architect to be selected at once.

Minn., Long Prairie—School—Until Nov. 11, by Independent School Dist. 11, building 2 story, 75 x 160 ft. rein.-con., brick and stone. About $200,000. W. M. Barber, secy. C. H. Parsons, 600 Builders Exch., Minneapolis, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Dorchester**—Convent—St. Gregorys Roman Catholic Church, 2221 Dorchester Ave., let contract building 3 story, 52 x 70 ft. brick and steel, concrete foundation, to J. M. Dolan, 197 Sidney St., Cambridge. About $75,000.

★**Mass., Jamaica Plains** (Boston P. O.)—Theatre—H. Eilenberg, 37 Tremont St., will build 1 story, 84 x 120 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Center St. About $125,000. Work will be done by day labor. Noted Sept. 16.

★**Mass., Westfield** — Church — St. Joseph Polish Natl. Catholic Society, 61 Washington St., let contract building 1 and 2 story, concrete, brick and steel, concrete foundation, on Main St. and Clinton Ave., to M. Fillipow, Main St. and Clinton Ave. About $75,000. Noted Oct. 21.

★**Conn., Waterbury**—Store and Office—J. H. Cassidy, 144 Bank St., let contract building 1 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on West Main and Willow Sts., to Tracy Eros. Co., 52 Benedict St. About $75,000.

★**N. Y., Eastview** — Hospital — Bd. Supervs. Westchester Co., White Plains, let contract altering brick and stone, here, to F. N. Goble, 299 Madison Ave., New York City. About $75,000.

★**N. Y., New York**—Loft—Herald Square Bldg. Co., c/o Schwartz & Gross, archts. and engrs., 347 5th Ave., will build 8 story, 100 x 100 ft., brick, steel and stone, concrete foundation, on West 37th St. Work will be done by day labor under supervision of architect.

★**Pa., Bethlehem**—Schools—Br. Educ. let contract for excavation, steel and exterior work on 2 story, 176 x 185 ft., on Union and 8th Sts., to F. J. Groman, West and North High Sts.; 3 story, 170 x 255 ft., on 4th and Pierce Sts., to F. P. Speck, Cunow St. Total costs $450,000 and $400,000 respectively. See item under "Bids Desired."

★**Md., Baltimore** — Office — United States Fidelity & Guaranty Co., Calvert and Redwood Sts., let contract building 3 story (ultimately 12 story) brick and steel, stone foundation, on Calvert and Mercer Sts., to G. Dose Eng. Co., 43 West 27th St., New York City. About $500,000. Noted Oct. 7.

Md., Baltimore—Schools—Bd. Educ. received bids building P. S. 76, concrete, brick and steel, concrete foundation, on Fort Ave. and Latrobe Pk., from Standard Constr. Co., 1713 Sansom St., Phila., $485,000; P. S. 64, brick and stone, concrete foundation, on Garrison and Penhurst Aves., from C. L. Stockhausen Co., Gay and Water Sts., $92,885. Noted July 29.

★**Md., Baltimore** — Theatre — Douglas Amusement Co., c/o Lachman & Murphy, archts., Drexel Bldg., Phila., will build 1 story, brick, concrete and steel, at 1317-25 Pennsylvania Ave. Work will be done by day labor under supervision of architects. Noted Sept. 16.

★**N. C., Greensboro**—Theatre and Stores—Natl. Amusement Corp. let contract building 4 story, 80 x 144 ft. concrete, brick and steel, on South Elm St., to L. B. Flora & Son, East Paxton St., Danville, Va. About $125,000; cost plus percentage basis. Noted May 27.

★**O., Cleveland**—Bank and Office—State Banking & Trust Co., West 65th St. and Detroit Ave., let contract building 2 story, 40 x 100 ft., brick and steel, brick foundation, at 419 Eagle Ave., to Drummond-Miller Co., 4500 Euclid Ave. About $125,000.

O., Cleveland Heights (Warrensville P. O.)—Schools—Bd. Educ. received bids Oct. 20, building 4 story, 45 x 90 ft., rein.-con., brick and steel addition, rein.-con. flooring, brick and concrete foundation on Coventry Rd., from Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $206,760; Alexander Bros., Williamson Bldg., Cleveland, $209,757; P. Kirschner, Hippodrome Bldg., Cleveland, $213,931; two 2 story, 35 x 70 ft. additions, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Fairfax Rd., from Moore-Lamb Constr. Co., 203 Stambaugh Bldg., Youngstown, $135,000; J. A. Moffatt Co., 1836 Euclid Ave., Cleveland, $137,900, Willing Eros., Bellevue, $142,472. Noted Oct. 7.

O., Elyria—School—Bd. Educ. received bids Oct. 18, building 2 story, 98 x 201 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Gulf Rd. and Ohio St., from Drummond-Miller Co., 4500 Euclid Ave., Clevelad, $274,600; J. Kaiser & Son, Elyria, $287,000; G. Kratt, Lorain, $297,000. Noted Oct. 7.

★**Mich., Ecorse**—School—Bd. Educ., Dist. 5, let contract building 2 story, 86 x 90 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Fort St. and Pepper Rd., to Patterson Constr. Co., 907 Ford Bldg., Detroit. About $100,000.

★**Wis., Manitowoc** — Theatre — W. J. Raeuber, archt., Teitgen Bldg., let contract to Badger State Constr. Co., Manitowoc, building 4 story, 87 x 115 ft., concrete, brick and steel, for George Bros., 913 South 8th St. About $125,000. Noted May 6.

★**Kan., Parsons**—High School—Bd. Educ. let contract building 3 story, 40 x 100 ft. concrete, steel and brick, rein.-con. flooring, rock and concrete foundation, at 1328 Bway., to Widmer & Prince, Parsons, $172,219. Noted July 8.

★**Mo., Clayton**—Gymnasium—Chaminade College let contract building 2 story, 103 x 164 ft., brick and concrete, rock foundation, on Denny Rd., to Crewe Constr. Co., Century Bldg., St. Louis. About $75,000.

★**Tex., Denison** — Hospital — Missouri, Kansas & Texas Ry. Employees Assn. let contract building 3 story, brick, to Munn Constr. Co., Denison. About $300,000.

★**Que., Rock Island**—Office—Butterfield & Co., Inc., Derby Line, Vt., let contract building 2 story, 40 x 103 ft. brick, concrete foundation, here, to J. J. Power, 15 Ashland St., Worcester, Mass. About $125,000.

Federal Government Work

PROPOSED WORK

R. I., Providence—Dredging—Major T. M. T. Robins, ch. engr., rejected bids received Oct. 11, dredging Thames River, Conn. Work will be readvertised in January. Noted Oct. 21.

N. J., Cape May—Radio Compass Building—Spec. 4325—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

Md., Annapolis—Repainting Structure—Spec. 4329—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to repaint structure, here.

D. C., Wash.—Reciprocating Air Compressor—Spec. 4327—Bureau Yards & Docks, Navy Dept., plans to install at Bellevue, here.

D. C., Wash.—Turbo Generator and Switchboard—Spec. 4317—Bureau Yards & Docks, Navy Dept., plans to install turbo generator and switchboard equipment, here.

Va., Hog Island—Radio Compass Building—Spec. 4324—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

Va., Virginia Beach—Radio Compass House—Spec. 4321—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

N. C., Cape Hatteras—Radio Compass Building—Spec. 4323—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct here.

N. C., Cape Lookout—Radio Compass Building—Spec. 4320—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

N. C., Poyners Hill—Radio Compass Building—Spec. 4322—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

Fla., St. Petersburg—Dormitory—Spec. 4319—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct here.

Tex., Port Arthur—Radio Building and Tower—Spec. 4328—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

Wash., Puget Sound—Electric Traveling Crane—Spec. 4326—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build electric traveling crane, here.

Cal., San Diego—Hospital Buildings—Spec. 4300—Bureau Yards & Docks, Navy Dept., Wash., D. C., received no bids Oct. 27, constructing, at Naval Base, here. Noted Oct. 21.

Cal., San Diego—Marine Railway—Spec. 4297—Bureau Yards & Docks, Navy Dept., Wash., D. C., received no bids Oct. 27, relocating and completing marine railway, at Naval Base, here. Noted Oct. 7.

H. T., Kushua—Shell House—Spec. 4318—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, at Naval Air Depot, here. About $50,000.

Federal Government Work (Continued)

BIDS DESIRED

Mass., Chelsea—Alterations and Additions to Main Buildings, etc.—Spec. 4273—Until Nov. 17, by Bureau Yards & Docks, Navy Dept., Wash., D. C., altering and constructing addition to main building and constructing addition to heating plant, here. Noted Sept. 2.

N. Y., New York — Electric Traveling Bridge Crane—Spec. 4250—Until Nov. 3, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building electric traveling bridge crane for bulkhead handling ways No. 1 and for steel storage.

Pa., Allentown—Mezzanine Floors, etc.—Until Nov. 16, by Treas. Dept., at office of J. A. Wetmore, superv. archt., Wash. D. C., building in U. S. Post Office, here; advertised in this issue.

Tex., Galveston — Redredging — Until Nov. 24, at U. S. Engineers' Office, redredging Galveston Channel; advertised in this issue.

Wash., Puget Sound—Nurses Quarters—Spec. 4293—Until Nov. 3, by Bueau Yards & Docks, Navy Dept., Wash., D. C., building, here.

Cal., San Diego—Quartermaster's Storehouse—Spec. 4280—Until Nov. 24, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building at Marine Base, here; $10 deposit required for plans and spec. Noted Sept. 16.

H. T., Kualua—Ordnance Buildings—Spec. 4168—Until Dec. 1, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing 5 ordnance buildings, at Pearl Harbor, here; $10 deposit required for plans and spec. Noted April 15.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Chelsea—Macadam Road, etc.—Spec. 4284—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids building macadam roads, walks, etc., here, (1) work complete, from M. Serreto, 3 Fremont Row, Boston, (1) $38,000 (75 days); Coleman Bros., 49 Medford St., Charlestown Dist., Boston, (1) $47,000 (150 days), (2) $3,500; Hyde & Baxter, 1311 G St., N. W., Wash., D. C., (1) $53,280 (210 days), (2) $1,600. Noted Oct. 21.

R. I., Providence—Dredging—U. S. Engineer received bids Oct. 25, dredging, (1) 321,000 cu.yd. in Stamford Harbor, (2) 11,000 cu.yd. Norwalk Harbor, (a) both works as whole, (b) 2 works separately, from J. S. Packard Dredging Co., 1004 Turks Head Bldg., (1a) $0.32¼ (1b) $0.32¼, (2a) $0.32¼; F. E. Jones, 1002 Bank of Commerce Bldg., Norfolk, Va., (1a) $0.41, (2a) $0.41; Columbia Dredging Corp., 30 Church St., New York City, (1a) $.33, (2a) $0.33; Bridgeport Dredge & Dock Co., 1024 Main St., Bridgeport, Conn., (1a) $0.387, (2a) $0.387; P. S. Ross, 277 Washington Ave., Jersey City, N. J., (1b) $0.52. Noted Oct. 7.

N. Y., Brooklyn—Concrete Roads, etc.—Spec. 4310—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Oct. 27, building concrete roads and sidewalks, at Naval Hospital, here, (1) work complete, from E. F. Monahan, 195 Hastings St., Manhattan Beach, (1) $27,187 (60 days), (2) $5.75. Noted Oct. 21.

N. Y., Buffalo—Remodeling and Repairing Custom House and Post Office—Treas. Dept., Wash., D. C., received bids Oct. 26, remodeling, here, from Franco-Amer. Constr. Co., Inc., 15 West 91st St., New York City, $168,400; D. Gordon Bldg. & Constr. Co., Burnett and Northern Aves., Avon, O., cost plus 10% profit; Savage Constr. Co., Buffalo, $220,000. Noted Sept. 30.

★**N. Y., New York**—Turret Foundation—Spec. 4295—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Navy Yard, here, to Phoenix Constr. Co., 11 Park Row, New York City, $17,897, (30 days). Noted Oct. 28.

D. C., Wash.—Grading—Treas. Dept. received bids Oct. 25, grading at U. S. Public Health Sanatorium, Mt. Alto, here, (1) earth, (2) rock excav., from W. F. Brenizer Co., 101 New York Ave., N. E., (1) $0.70 per cu.yd., (2) $5 cu.yd., (30 days); Corson & Gruman Co., 61 Rhode Island Ave., N. E., (1) $1.10, (2) $3, (30 days). Noted Oct. 21.

La., New Orleans—Mine Storage Building—Spec. 4253—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Oct. 20, constructing mine storage building and shell house, at Naval Station, here, (1) work complete, from D. F. Brandon, 806 James Bldg., Chattanooga, Tenn., (1) $57,984 (180 days), (2) $38,993, (3) $18,991, (4) $2,966 (10 days), (5) $2,061 (5 days); J. Reiss, 503 Hibernia St., (1) $63,000 (180 days), (2) $42,420, (3) $21,810; Hyde & Baxter, 1311 G St., N. W., Wash., D. C., (1) $58,780 (180 days), (2) $39,445, (3) $21,535, (4) $4,200. Noted Sept. 30.

California—Road Work—U. S. Dept. of Agriculture, 886 Mills Bldg., San Francisco, received bids improving 8.7 mi. roads in Klamath Natl. Forest, Job 24, from Willett & Burr, 512 Mission St., San Francisco, $150,117; M. J. Blake, Orleans, $167,092; Mooline & Reedy, Medford, Ore., $198,544.

Cal., San Diego—Dredging—Spec. 4287—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bid dredging and filling about 3,200,000 cu.yd., at Naval Base, Marine Barracks and Training Station, here, (1) work complete, from United Dredging Co., Woolworth Bldg., New York City, (1) $0.2021, (2) $0.20, (3) 0.239 (time specified). Noted Sept. 23.

Cal., San Diego—Dredging—Spec. 4287—Pub. Wks. Officer received bids Oct. 20, dredging and filling 2,700,000 cu.yd., at Naval Base Barracks and Training Station, (1) work complete, from San Francisco Bridge Co., Nevada Bank Bldg., San Francisco, (1) $0.347, (2) $0.347, (3) $0.358, alternate, (1) $0.293, (2) $0.293, (3) $0.307. Noted Sept. 23.

Cal., San Diego—Fire Alarm System—Spec. 4288—Pub. Wks. Officer received bids Oct. 21, building fire alarm system (1) work complete, from Globe Electric Co., Timken Bldg., (2) $18,900, (120 days). Noted Oct. 7 and 28.

Miscellaneous

PROPOSED WORK

Bitumen—New York, N. Y.—Bd. Purchase, Municipal Bldg., received no bids Oct. 25, furnishing and delivering bitumen asphalt cement. Project will be readvertised. Noted Oct. 21.

Park—Wilkes Barre, Pa.—City plans to improve Kirby Park. About $250,000. F. H. Gates, clk.

Park, Cleveland, O.—Metropolitan Park Bd., c/o M. H. Farnsworth, Old Court House, plans to build park on 500 acre site, in Brecksville Twp. About $500,000. W. A. Stinchcomb, Court House, engr.

Storage and Mixing House and Craneway—Dayton, O. — Gartland-Haswell-Rentschler, Keowee St., plans to build rein.-con. storage and mixing house and rein.-con. craneway with elevated storage floors for coke and iron, span of craneway 60 ft., 43 ft. high. About $20,000. F. H. Smith, Dayton, engr.

Automobiles and Wagons, etc.—Youngstown, O.—City plans to purchase several automobiles, wagons and like equipment, for collecting garbage. About $80,000. G. F. Turner, City Hall, engr.

Incinerators—Youngstown, O.—City plans to erect or enlarge present system, including installation of 2 and possibly 4 incinerators, and accompanying equipment. About $750,000. G. F. Turner, City Hall, engr.

Signal and Call System—East Youngstown, O.—Village plans election to vote on $15,000 bonds to install signal and call service system for Police Dept. A. Julius, clk.

Retaining Wall—Ottawa, Ill.—City opens bids in spring building South Bluff retaining wall. About $18,000.

Tract Development — Drummond, Wis. — Rusk-Owen Lumber Co. plans to develop tract, to include sewerage system, sewage disposal plant, public garage and several small dwellings. About $100,000. E. E. Gilchrist, secy. G. L. Nason, 641 Endicott Bldg., St. Paul, Minn., archt.

Fairground, etc.—Sedalia, Mo.—City having plans prepared constructing fairground and buildings, to include rearranging race track, cutting same from 1 mi. to ½ mi., moving race horse barns, erecting concrete stand to seat 20,000 people, remodeling old stand into merchants and manufacturing building, constructing brick and steel administration building, brick and steel swine pavilion and several other smaller buildings, etc. About $1,000,000. Holcomb Eng. Co., Tulsa, Okla., engrs.

Market—Quebec, Que.—City soon receives bids building new market on St. John St. About $75,000.

BIDS DESIRED

Laundry Equipment—Hudson, N. Y.—Until Nov. 17, by A. W. Allen, pres. Bd. Mgrs., New York State Training School for Girls, furnishing laundry equipment; advertised in this issue.

Refrigerating Apparatus—Sonyea, N. Y.—Until Nov. 9, by P. L. Lang, pres. Bd. Mgrs., Craig Colony for Epileptics, furnishing refrigerating apparatus for dining room and kitchen building. L. F. Pilcher, archt., Albany, state archt.; advertised in this issue.

Pump, etc.—Albany, Wis.—Until Nov. 2, by city, for 1 centrifugal pump, motor and controlling apparatus for waterworks pump with 160 gal. per minute capacity against total head of 165 ft. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr.

Arena—Toronto, Ont.—Until Nov. 16, by Bd. Control, building 1 story, 200 x 600 ft., brick and steel, concrete flooring and foundation, on exhibition grounds. About $1,500,000. W. Price, city archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Plumbing, etc.—Brooklyn, N. Y.—Bd. Educ., 500 Park Ave., New York City, received bids Oct. 27, installing plumbing and drainage in P. S. 181, here, from Wells & Newton Co., Ave. B and 17th St., New York City, $60,600, J. J. Kenney, 236 West 20th St., New York City, $61,500, J. A. Graf, 394 Waverley Ave., $67,867; electric equipment in same, from Croker Co., 1270 Bway., New York City, $46,992, E. E. Jandous Co., 109 West 31st St., New York City, $47,690, T. F. Jackson, 99 John St., New York City, $48,200.

★**Car Barns—New York, N. Y.**—West 129th St. Bldg. Co., 335 Wadsworth Ave., will alter 1 story, 150 x 200 ft. car barns, brick and steel, on 129th St. and Amsterdam Ave. About $75,000. Work will be done by day labor

Heating System—New York, N. Y.—Dept. Pub. Wks., Capitol, Albany, received bids installing heating system in Barge Canal Terminal Headhouse, on Pier 93, West 53rd St., here, (Contr. 225-H), from Austin Eng. Corp., 121 West 42nd St. $4,875.

★**Tractors—New York, N. Y.**—Bd. Purchase, Municipal Bldg., let contract furnishing and delivering 50 gasoline motor driven track laying tractors, to Holt Mfg. Co., 50 Church St., $212,500. Noted Oct. 7.

★**Boilers—West New Brighton, S. I., N. Y.**—Dept. Pub. Welfare, Municipal Bldg., New York City, let contract installing boilers in proposed addition to boiler house, at Sea View Hospital, here, to Almirall & Co., Inc., 1 Dominick St., New York City, $79,789. Noted Oct. 21, under "Industrial Works."

★**Coal Bunkers—Pittsburgh, Pa.**—Mercy Hospital, Stevenson and Locust Sts., let contract building 20 x 65 ft. rein.-con. coal bunkers, to include coal slides, manholes, etc., to D. T. Riffle, Keenan Bldg. About $20,000.

★**Cable—Cleveland, O.**—City let contract furnishing 48,197 ft. underground lead cable, to Safety Insulated Wire & Cable Co., 700 West Jackson Blvd., Chicago, Ill., $20,052.

★**Pipe and Castings—Cleveland, O.**—City let contract furnishing c. i. pipe and castings, to Natl. Cast Iron Pipe Co., Cleveland, $38,692.

★**Foundation, etc.—Ft. Wayne, Ind.**—Bd. School Comrs. let contract building foundation for 3 story, 211 x 230 ft., rein.-con. and brick high school, on Calhoun St., to Buesching & Hagerman Co., 402 East Superior St., $59,896; plumbing, heating and wiring for foundation, to P. B. Arnold Co., 213 East Main St., $11,059; cut granite base, to J. D. Sargent Granite Co., Mt. Airy, N. C., $12,800.

★**Dam, etc.—International Falls, Minn.**—Minnesota & Ontario Paper Co. let contract building rein.-con. dam and brick pumphouse, on Rainy River to C. F. Haglin & Sons Co., 226 Lumber Exch., Minneapolis. About $500,000.

★**Foundation—Madison, Wis.**—University of Wisconsin let contract building concrete foundation for rein.-con. and brick hospital, on University Ave., to L. B. Gilbert, 23 North Pinckney St., $21,457. Noted Oct. 21, under "Buildings."

★**Undergrade Railroad Crossing—Dallas, Tex.**—City let contract building undergrade railroad crossing at Maple Ave. and Fairmount St., over Missouri, Kansas & Texas R.R., here, to Vilbig Bros., 1709 Jackson St., and Klein Bros. Co., Junius and Walton Sts., $157,417. Work includes lowering property, moving 12 houses, building driveway, sidewalks, stairs, curbs, gutters, etc., and involves 49,450 cu.yd. earth and 96 cu.yd. rock excav., 86,500 lb. rinforcing steel, 14,295 sq.ft. sidewalk, 9,175 sq.ft. driveway, 2,560 lin.ft. combined curb and gutter, 1,500 sq.yd. gravel macadam pavement, 465 cu.yd. Class "A" and "B" and 355 cu.yd. Class "C" concrete, etc.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 16	Oxford, Mich.	Oct. 21
Nov. 22	Detroit, Mich.	Nov. 11
Nov. 27	Denver, Col. Adv. Nov. 11.	Nov. 11

SEWERS

Nov. 15	Chadron, Neb.	Nov. 4
Nov. 15	Garfield Heights (Cleveland P. O.), O.	Nov. 11
Nov. 16	Paterson, N. J.	Nov. 4

BRIDGES

Nov. 15	Michigan	Nov. 4
Nov. 15	Kinston, N. C.	Nov. 11
Nov. 15	Oskaloosa, Kan.	Nov. 11
Nov. 18	Ft. Worth, Tex.	Nov. 11
Nov. 22	Alamo, Ga.	Nov. 4
Nov. 22	Victoria, B. C. Adv. Nov. 4 and 11.	Nov. 4
Nov. 22	North Carolina	Nov. 11
Nov. 23	Bridgewater, Vt. Adv. Nov. 4 and 11.	Nov. 11
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Nov. 15	Oskaloosa, Kan.	Oct. 21
Nov. 15	Indiana	Oct. 28
Nov. 15	Mantorville, Minn.	Nov. 4
Nov. 15	Boston, Tex.	Nov. 4
Nov. 15	Oskaloosa, Kan.	Nov. 11
Nov. 15	Indiana	Nov. 11
Nov. 16	Lyon, Kan.	Oct. 14
Nov. 16	Newark, N. J.	Nov. 11
Nov. 16	Philadelphia, Pa.	Nov. 11
Nov. 16	South Orange, N. J.	Nov. 11
Nov. 16	St. Louis, Mo.	Oct. 28
Nov. 16	Crystal Falls, Mich.	Nov. 4
Nov. 16	Lake City, Mich.	Nov. 4
Nov. 16	Ontario	Nov. 4
Nov. 16	Maryland Adv. Nov. 4 and 11	Nov. 11
Nov. 16	Wash, D. C.	Nov. 11
Nov. 17	Providence, R. I.	Oct. 28
Nov. 17	Brooklyn, N. Y.	Nov. 11
Nov. 18	New York, N. Y.	Nov. 11
Nov. 18	Ballinger, Tex.	Nov. 11
Nov. 19	Montesano, Wash.	Nov. 11
Nov. 19	Missouri	Nov. 11
Nov. 21	Joliet	
Nov. 22	Indiana	Nov. 11
Nov. 22	Columbiana, Ala.	Nov. 11
Nov. 22	North Carolina	Nov. 11
Nov. 23	Leavenworth, Kan.	Nov. 4
Nov. 24	Missouri	Nov. 11
Nov. 27	Missouri	Nov. 4
Nov. 29	Topeka, Kan.	Nov. 4
Nov. 30	Georgia Adv. Nov. 11.	Nov. 11
Dec. 1	Columbus, Kan.	Nov. 11
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 5	Colorado Springs, Col.	Oct. 21
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Nov. 18	Cleveland, Miss.	Nov. 11
Nov. 22	Tampa, Fla.	Nov. 11

RAILWAYS

Bids Close		See Eng. News-Record
Nov. 30	Quebec	Nov. 11

INDUSTRIAL WORKS

Nov. 11	New York, N. Y.	Nov. 4
Dec. 1	Metuchen, N. J.	Oct 28

BUILDINGS

Nov. 15	Baltimore, Md.	Oct. 28
Nov. 15	Enid, Okla.	Oct. 28
Nov. 15	River Rouge, Mich.	Nov. 11
Nov. 15	Birmingham, Mich.	Nov. 11
Nov. 15	Detroit, Mich.	Nov. 11
Nov. 16	Shelby, Ia.	Oct. 28
Nov. 20	Duluth, Minn.	Nov. 4
Nov. 22	Buffalo, N. Y.	Oct. 28
Nov. 23	Pocahontas, Ia.	Nov. 11
Nov. 24	Cleveland Heights (Warrensville P. O.), O.	Nov. 4
Dec. 1	Johnstown, Col.	Nov. 11
Dec. 1	Piqua, O.	Nov. 11
Dec. 6	Ossining, N. Y.	Oct. 21
Dec. 6	Atlantic City, N. J.	Nov. 11
Dec. 10	Brooklyn, N. Y.	Oct. 21
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan. 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis.	Nov. 11

FEDERAL GOVERNMENT WORK

Nov. 15	Marine Hospital—Philadelphia, Pa.	Oct. 21
Nov. 15	Extending Mailing Vestibule, etc.—Akron, O.	Oct. 21
Nov. 16	Extension to Mailing Vestibule—Portsmouth, O.	Oct. 28
Nov. 16	Mezzanine Floors, etc.—Allentown, Pa.	Nov. 4
Nov. 17	Marine Railway—Spec. 4254—Pearl Harbor, H. T.	Oct. 14
Nov. 17	Nurses Quarters—Spec. 4293—Puget Sound, Wash.	Oct. 28
Nov. 17	Ordnance Buildings—Spec. 4168—Pearl Harbor, H. T.	Oct. 14
Nov. 17	Remodeling Post Office and Court House—Sacramento, Cal.	Oct. 21
Nov. 17	Alterations and Additions to Main Building, etc.—Spec. 4273—Chelsea, Mass.	Nov. 4
Nov. 17	Incinerator Plant—Boston, Mass.	Nov. 11
Nov. 17	Altering Attendants Quarters, etc.—Cincinnati, O.	Nov. 11
Nov. 18	Earthwork—St. Louis, Mo. Adv. Oct. 21 to Nov. 11.	Oct. 21
Nov. 18	Post Office—Athens, Tenn.	Oct. 28
Nov. 18	Steel Hangar, etc.—Aberdeen, Mo.	Nov. 11
Nov. 19	Altering Post Office and Custom House—Oswego, N. Y.	Oct. 28
Nov. 24	Quartermasters Storehouses Spec. 4280—San Diego, Cal.	Nov. 4
Nov. 24	Redredging — Galveston, Tex. Adv. Oct. 21 to Nov. 11.	Nov. 4
Nov. 24	Incinerator—Quantico, Va.	Nov. 11
Nov. 24	Lighting Conduits, etc. — Springfield, Ill.	Nov. 11
Nov. 24	Boiler Plant Improvements —Spec. 4252—Charleston, S. C.	Nov. 11
Nov. 24	Removing Mast—Spec. 4314—Pensacola, Fla.	Nov. 11
Dec. 1	Refrigerating Equipment — Spec. 4303—San Diego, Cal.	Nov. 11
Dec. 1	Ordnance Buildings—Spec. 4168—Kuahua, H. T.	Nov. 4

MISCELLANEOUS

Bids Close		See Eng. News-Record
Nov. 15	Stairway — Williamsbridge (New York P. O.), N. Y.	Nov. 11
Nov. 16	Head Gates—Baldwinsville, N. Y. Adv. Oct. 23 to Nov. 11	Oct. 21
Nov. 16	Bockwall—Buffalo, N. Y.	Oct. 21
Nov. 16	Ties—Detroit, Mich.	Nov. 11
Nov. 16	Arena—Toronto, Ont.	Nov. 4
Nov. 16	Coal Conveyor Belt—New Orleans, La. Adv. Nov. 4 and 11	Nov. 11
Nov. 16	Coal Handling Machinery —New Orleans, La. Adv. Nov. 4 and 11	Nov. 11
Nov. 16	Portland Cement—Detroit, Mich.	Nov. 11
Nov. 16	Dock Equipment—New Orleans, La. Adv. Nov. 11.	Nov. 11
Nov. 16	Wharf Shed—New Orleans La.	Nov. 11
Nov. 16	Paving Block—Brooklyn, N. Y.	Nov. 11
Nov. 17	Laundry Equipment—Hudson, N. Y.	Nov. 4
Nov. 18	Gasoline, Paving Grits, etc. New York, N. Y.	Nov. 11
Nov. 19	Pumps—Akron, O. Adv. Nov. 4 and 11.	Nov. 11
Nov. 19	Enclosures — New York, N. Y.	Nov. 11
Nov. 22	Docks—Detroit, Mich.	Nov. 11
Nov. 22	Lock and Dam—Chicago, Ill. Adv. Oct. 21 to Nov. 11	Oct. 21
Nov. 23	Heating, etc. —Ossining, N. Y.	Oct. 28
Dec. 1	Heating Work—Central Islip, New York, N. Y. Adv. Nov. 11.	Nov. 11

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Md., Baltimore—City voted $15,000,000 bonds to increase water supply. H. G. Perring, City Hall, ch. engr. Noted Aug. 5.

N. C., Red Springs—Town plans to extend waterworks and lighting systems. About $50,000. A. P. Spell, clk.

O., Kenmore—City voted $200,000 bonds to extend waterworks system.

O., Niles—City will sell $75,000 bonds to extend and improve waterworks system. Bonds for $150,000 voted last August.

Mich., Ecorse—City rejected bids for furnishing labor and material laying and finishing watermain extensions from here to River Rouge. Work will be readvertised. G. Jerome, 1331 Majestic Bldg., Detroit, engr. Noted Oct. 21.

Minn., South St. Paul—City having plans prepared by J. H. A. Brantz, engr., 409 Metroplitan Opera House Bldg., St. Paul, for waterworks extensions. About $85,000. Noted Sept. 23.

Kan., Caney—City had plans prepared for filtration plant. Black & Veatch, Interstate Bldg., Kansas City, Mo., engrs.

Neb., North Platte—City voted $50,000 bonds to improve waterworks system.

Wyo., Douglas—City soon receives bids building waterworks system, to include collecting system below river bed, reservoir

Waterworks (Continued)

and pump house, etc. About $75,000. Prince, Nixon & Co., Omaha, Nebr., engrs. Noted Sept. 2.

Tex., Terrell—City rejected bids received Oct. 25, improving wateworks system, to include furnishing and installing new pumping equipment, etc. About $100,000. Work will be readvertised. Noted Oct. 14.

Ariz., Phoenix—City election Nov. 27, to vote on $450,000 bonds to purchase, extend and improve water distributing system.

BIDS DESIRED

O., Middletown—See "Streets and Roads."

Mich., Detroit—Until Nov. 22, by H. Brabyn, secy. Bd. Fire Comrs., Wayne and Larned Sts., building 2 story, 90 x 90 ft. high pressure pumping station, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Randolph St. and Detroit River. Smith, Hinchman & Grylls, 710 Washington Arcade, engrs.

Col., Denver—Until Nov. 27, by Wellington Reservoir Co., at office of L. E. Bishop, ch. engr., 1st Natl. Bank Bldg., Denver, for building solid rock outlet tunnel, 4 ditches and raising Wellington Dam, at Wellington Reservoir, in Jefferson Co., 50 mi. southwest of here. J. A. Hicks, pres.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Boston — Commonwealth of Massachusetts, Metropolitan Dist. Comn., 1 Ashburton Pl., let contract building pumping engine at Chestnut Hill Pumping Sta., Brookline, to Worthington Pump & Mchy. Corp., 206 Devonshire St. About $75,900.

★Conn., Bridgeport—City let contract to Bridgeport Constr. Co., 983 Broad St., building Black Rock pumping station, 1 story, 25 x 30 ft., concrete, brick and steel, cost $32,000; Island Brook pumping station, on Berkshire Pond, 1 story, concrete, brick and steel, $30,000.

N. Y., Long Island City—N. J. Hayes, comr. water, gas and electricity, Municipal Bldg., New York City, received bids Nov. 5, for hauling and laying watermains in Beechurst and Jamaica Aves. and North Hempstead Turnpike, from Palidino Constr. Co., 2254 1st Ave., New York City, $36 848; Milvale Constr. Co., $37,828; Murphy Bros., $37,800.

★N. J., Newark—North Jersey Dist. Water Supply Comn., 20 Clinton St., let contract building portion of Wanaque Dam, to W. H. Gahagan, Inc., 147 Remsen St., Brooklyn, $1,429,116. Noted Nov. 4.

★O., Cuyahoga Falls—City let contract building Fall St. Lateral Sewer, to L. L. Stark, Cuyahoga Falls, $14,773.

★Wis., West Bend—See "Sewers."

★Kan., Wagstaff—Missouri Pacific Ry Co., Ry. Exch. Bldg., St. Louis, Mo., let contract building reservoir, dam, pump house, water distribution, etc., here, to J. E. Nelson & Sons, 3240 South Michigan Ave., Chicago, Ill. About $90,000.

Sewers

PROPOSED WORK

N. Y., Syracuse—City plans to sell $125,000 bonds Nov. 16 to build sewers.

Md., Baltimore—City voted $26,000,000 bonds to build sewers, lighting system, schools and engine-houses, and to pave various streets. H. G. Perring, city ch. engr. Noted Aug. 5.

O., Idlewood (Warrensville P. O.)—Village plans to build storm and sanitary sewers and water mains in Wynn Rd. from Raymont to Washington Blvd., Barrington Rd. from Salisbury to Cedar Rds., Cranston Rd. from Silsby to Cedar Rds., Silsby Rd. from Taylor to Warrensville Rds., Eaton Rd. to Meadowbrooke Blvd., cost $41,564; Cedar Rd. from Taylor Rd. to Cedar Brook allotment, Farland Rd. from Silsby Rd. to Cedarbrook allotment, Jackson Blvd. from Cedar to Taylor Rds., Raymont Blvd. from Cedar to Taylor Rds., Tullamore Rd. from Taylor Rd. to Cedarbrook allotment, $65,400. F. A. Pease Eng. Co., 804 Marshall Bldg., Cleveland, engrs.

O., Marion—City voted $1,000,000 bonds to build sanitary sewerage system and sewage disposal plant.

O., Niles—City plans to build storm and sanitary sewers in 1 mi. Salt Spring Rd., cost $31,000; 6,000 ft. in Red Run, $150,000.

Mich., Detroit—City having plans and estimates made for lateral Sewer 3 377 between Chiago Blvd., Joy Rd., Wildemere and Lawton Sts., 3,385 between Eight Mile Rd., Hawthorne, Cardoni and Winchester Sts., 10-24 in. vitr. crock. C. W. Hubbell, city engr.

Mich., Detroit—City plans to build and backfill 895 ft. Lateral Sewer 3,223 between Springwells, Burke, Kirkwood and Wagner Aves., 12-18 in. vitr. crock, etc.; 5,491 ft. Lateral Sewer 3,300 between Six Mile Rd., Marx, St. Aubin and Nevada Aves., 12-33 in. vitr. crock, etc.; 5,805 ft. Lateral Sewer 3,314 between Arlington, Maine, Carpenter and Davison Aves., 12-20 in. vitr. crock, etc; 1,183 ft. Lateral Sewer 3,386 between Oakland, Cameron, Luntz and State Fair Aves., 12-15 in. crock, etc. C. W. Hubbell, city engr.

Ia., Bellevue—City plans to install complete sewerage system. About $60,000. Engineer not announced.

Ia., Ft. Dodge—W. L. Tang, city clk., opens bids in January, building extension to sewerage system. About $40,000. C. H. Reynolds, Ft. Dodge, engr.

Tex., Ft. Worth—City retained G. P. Smith, engr., Ft. Worth, to prepare plans for ditching and laying sanitary sewers in Seminary Hill Addition. About $50,000.

Ariz., Phoenix—City election Nov. 27, to vote on $140,000 bonds to build and extend sewerage system.

Cal., East San Diego (San Diego P. O.)—City voted $100,000 bonds to build trunk and outfall sewerage system.

Cal., Pomona—City plans to build sewerage system, involving 120,000-125,000 lin.ft. 8-12 in. vitr. tile. About $125,000. C. E. Bayley, city engr.

BIDS DESIRED

N. Y., New York—See "Streets and Roads."

O., Garfield Heights (Cleveland P. O.)—Until Nov. 15, by village, building sewers in Garfield Parkway, Greenview, Russell, Edgepark and Robinwood Aves., involving 3,330 ft. 8-12 in. vitr. pipe, 12 manholes. H. Bohning, Turney Rd., Cleveland, clk. Noted Oct. 14.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., let contract building sewer in Beekman St., to Pease Bros., $6,459; in South St., to Rotti & Co., (Type 'A"), $35,850; in Pierce Ave., also regulating and grading Maspeth Ave. to C. Kurth, $1,269 and $1,890 respectively. Noted Oct. 28.

★N. J., Paterson—Passaic Valley Sewerage Comrs., 128 Market St., Newark, let contract building portion of Sect. 21, Prospect Branch Sewer, involving 210 lin.ft. earth excav. and refilling in trench for 16 x 24 in. concrete sewer, 100 cu.yd. rock excav., etc., to L. B. Harrison & Co., 141 Bway., New York City, $16,033. Noted Oct. 28.

★N. C., Henderson—City let contract laying 2 mi. 8 in. sanitary sewers, with required manholes and flush tanks, to Tucker & Laxton, Inc., Realty Bldg., Charlotte. About $18,000.

O., Garfield Heights (Cleveland P. O.)—Village received bids building sewers in (a) Plymouth Ave., (b) Park Heights Ave., (c) South Highland Ave., (d) Heinton Ave., East 95th, East 96th and East 97th Sts., from A. Lanese, Columbia Bldg., Cleveland, (a) $12,777, (b) $13,096, (c) $3,253; Salem & George Bros., 237 Bradley St., Cleveland, (a) $14,630, (b) $15,064, (d) $12,245; Gantos Constr. Co., Columbia Bldg., Cleveland, (c) $3,679. Noted Oct. 14.

★Mich., Detroit—City let contracts to V. Teetaert, 5230 Notre Dame St., furnishing labor and material building, and backfilling, 10-24 in. vitr. crock Lateral Sewer 3,310 between Seven Mile Rd., Livernois, Canterbury and Pembroke Sts., $136,630, 3,334 between Springfield, Fairview and Shoemaker Aves and Hearn St., $14,920, 3,367 between Beaconsfield, Rifle Range, Munich and Mack Aves., $42,266; to W. Blanck & Co., 827 Ford Bldg., 3,314 between Arlington Maine, Carpenter and Davison Sts., $35,719, 3,316 between Greely, Dequindre, Davison and Drake Sts., $64,382, 3,366 between Cecil, Braden, Martin and Michigan Sts., $20,938; to S. A. Duponovich, 3,333 between Lumley, Springwells and Kirkwood Sts., $13,100; to Otis Cement Constr. Co., 806 Hammond Bldg., 3,337 betwen Seven Mile Rd., Woodward, Bauman and Carmel Sts., $25,146, 3,339 between Grand Trunk R.R., John R., Greendale and Hildale Sts., $14,980, 3,341 between John R., Savannah and Greendale Sts., $15,936, 3,354 between Seven Mile Rd., Charleston, Exeter and Lantz Sts., $24,591, 3,355 between Seven Mile Rd., Grand Trunk R.R., Exeter and Derby Sts., $16,996; to McCordic Constr. Co., 400 Penobscot Bldg., 3,360 between Seven Mile Rd., Coventry, Lindale and Lantz Sts., $7,775, between Grand Trunk R.R., John R., Coventry and Lantz Sts., $4,833, 3,362 between Lantz St., Oakland, Hawthorne and State Fair Aves., $13,306, 3,363 between Seven Mile Rd., Lindale, Irvington and Lantz Sts., $23,688, 3,364 between State Fair Ave., Coventry, Irvington and Lantz Sts., $[illegible]031, 3,365 between State Fair Ave., John R., Coventry and Lantz Sts., $3,828; to Lange & Barton, 3,369 between Buckingham, Bedford Warren and Harper Aves., $62,638; Western Constr. Co., 1208 Ford Bldg., 3,3[illegible] between Six Mile Rd., Cardoni and Sw[illegible] Aves., $10,842. Noted Oct. 28.

Mich., Detroit—J. A. Martin, comr. Pub. Wks., received bids Oct. 29, furnishing labor and material, building Sect. 2, Gratiot Ave. Sewer from point 1,100 ft. northeast of Glenfield Ave. to Joann Rd., involving 4,[illegible] ft. 8 ft. 3 in.-9 ft. 6 in. brick, concrete or segmental block cylinder, from Dept. Pub. Wks., City Hall, $425,000; J. Wagner, 297 West Boston Blvd., $491,100 (concrete), $498,205 (brick); Gawne Contg. Co., 624 Penobscot Bldg., $599,984. Noted Oct. 14.

★Wis., Manitowoc—City let contract building 6-10 in. vitr. sanitary storm sewer, in Western Ave. and Clark St., to W. O. Bahn, 8th St. About $21,000.

★Wis., West Bend—City let contract furnishing labor and material building sanitary sewerage system and excavating and laying water mains in Main and Elm Sts., to Cornillissen & Co., 73 Lincoln St., Sheboygan. About $20,000.

★Ont., London—City will build sewerage system in West London, cost $520,000 and in South London, $80,000. Work will be done by day labor. Price wanted at once on tile up to 36 in. H. A. Brazier, city engr. Noted Oct. 14.

Bridges

PROPOSED WORK

Fla., St. Petersburg—G. S. Gandy, Sr., c/o St. Petersburg Rotary Club, is organizing corporation and plans to build bridge, 40-60 ft. wide, over old Tampa Bay, between here and Port Tampa, Pinellas and Hillsborough Counties. About $2,000,000. Engineer not named.

Ala., Phoenix City—State Highway Dept. of Alabama, (Montgomery), and Georgia, (Atlanta), having designs made by Garrett & Slack, engrs., Bell Bldg., Montgomery, for building concrete arch bridge, 712 ft. long, 26 ft. roadway and two 8 ft. sidewalks, over Chattahoochee River, between here and Columbus, Ga. W. S. Keller, Montgomery, state highway engr.

O., Akron—City voted $250,000 bonds to build new approaches to North Hill viaduct.

O., Fremont—City voted $275,000 bonds to build new bridge across Sandusky River.

O., Coke Otto (Hamilton P. O.)—Comrs. Butler Co., Hamilton, plan to build 450 ft bridge, 25 ft. wide, over Miami River, on Riverside Dr., here, to have five 90 ft. spans, steel or rein.-con. arch. About $390,000.

Wis., Menasha—City plans to build 60 ft. steel bascule bridge over canal, concrete approaches. About $30,000. H. Johnson, Colby-Abbot Bldg., Milwaukee, engr.

Wis., Racine—City soon receives bids building 343 ft. concrete and steel bridge on State St., to have 10 ft walks and 133 ft. double leaf bascule. About $400,000. Strauss Bascule Bridge Co., 104 South Michigan Ave., Chicago, engrs. Noted March 4.

Missouri — State Highway Dept., New Madrid, received no bids Oct. 25, building pony truss superstructure over Open Bay Ditch, on Sta. 1061 plus 22, cost $7,441; I-beam superstructure over Drainage Ditch 18, on Sta. 907 plus 91, $4,793; pony truss superstructure over Hunter Lateral D.D., on Sta. 769 plus 85, $5,709; skew pony truss superstructure over Drainage Ditch 18, on Sta. 670 plus 30, $8,034. Above bridges on Federal Aid Project 40, New Madrid Co. Noted Oct. 7.

Tex., Ft. Worth—City and Tarrant Co. plan to build ¼ mi. concrete bridge, 32 ft. wide, over Lake Worth, to replace present wooden bridge. About $100,000. E. V. Glenn, Ft. Worth, engr.

Que., Hull—City plans to build new bridge over Pond Creek on Gatineau Point Rd. About $30,000. Engineer not selected.

BIDS DESIRED

Vt., Bridgewater—Until Nov. 23, by State Highway Comr., Montpelier, building steel superstructure for Booth bridge, here.; advertised in this issue.

Bridges (Continued)

North Carolina—Until Nov. 22, by State Highway Dept., Raleigh, building bridge on Federal Aid Project 93 Franklin Co., involving 1,147 cu.yd. Class A concrete, 130,000 lb. reinforcing steel, 1,780 lb. expansion plates and bolts, 2,070 lb. untreated timber piling, etc.; bridges on Federal Aid Project 48 B, Northampton Co., 250 cu.yd. Class A concrete, 28,710 lb. reinforcing steel, 810 lb. expansion plates and bolts, etc. W. S. Fallis, state highway engr.

N. C., Kinston—Until Nov. 15, by E. V. Webb, chn. Comrs. Lenoir Co., building several bridges, 5 bridges to have 30 ft. spans and 1 bridge to have three 30 ft. spans. Reinforcing steel to be furnished by county. G. C. White, Durham, engr.

Kan., Norton—Norton Co. receiving bids building 40 ft. T girder rein.-con. bridge, 18 ft. wide, on Sect. 21-3-24, involving 44.7 cu.yd. rein.-con., 298 cu.yd. concrete, 5½ ton steel and 360 lin.ft. wooden piling. Earth approach and fill work will be done by county.

Kan., Oskaloosa—Until Nov. 15, by Jefferson Co., building 30 ft. through girder and 40 ft. skew bridges, Sect. I on C Project 48, involving 113.2 cu.yd. Class A and 168 cu.yd. Class C concrete, 20,585 lb. steel, 1,520 lb. rockers and plates, 75 sq.ft. ½ in. bituminous felt and 30 gal. asphalt filler; 60 ft. rein.-con. through girder, Sect. G Project 48, involving 175.91 cu.yd. Class A and 234.2 cu.yd. Class C concrete, 34,800 lb. steel, 1,876 lb. expansion and pier castings, 40 lin.ft. 4 in. draw tile and 400 lb. asphalt filler. Kansas Eng. Co., Topeka, engrs.

Missouri—See "Streets and Roads."

Tex., Ft. Worth—Until Nov. 18, by H. L. Small, judge Tarrant Co., at office of County Auditor, building 2 steel spans, with abutments and piers over Trinity River on White Settlement Rd. About $30,000. R. V. Glenn, Court House, consult. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Amherst**—Town let contract building steel highway bridge, to Berlin Constr. Co., Berlin, Conn. About $15,000.

★**Pa., Holmesburg** (Phila. P. O.)—Home for Indigent, Rhawn St. and State Rd., let contract building 97 ft. bridge, 8 ft. wide, to Mitchell Bros. 2125 Race St., Phila., $27,792.

Mich. Detroit—Dept. Pub. Wks. received bids Oct. 30, building substructure of Belle Isle Bridge, involving 26,000 cu.yd. wet and dry excav., 34,700 cu.yd. rein.-con., 903,000 lb. reinforcing steel, 345,000 lin.ft. wood piling, etc. from G. R. Cooke, Penobscot Bldg., $1,951,850; Amer. Constr. Co., Marion Bldg., Cleveland, $1,959,750; Great Lakes Dredge & Dock Co., 1304 Dime Bank Bldg., $2,483,695. Above bids rejected; work will be readvertised. Noted Oct. 21.

Ill., Chicago—Sanitary Dist. of Chicago, 910 South Michigan Ave., received bids building (1) substructure, (2) superstructure of bascule bridge across main channel on California Ave., (a) Strauss bascule bridge with counterweight pits, (b) without pits, (c) Scherzer rolling lift bridge, from Green & Sons Co., 332 South Michigan Ave., (1a) $567,595, (1b) $535,245, (2a) $553,500, (2b) $623,700; Ketler Elliott Co., 155 North Branch St., (1a) $650,051, (1b) $615,311, (1c) $587,391, (2a) $604,500, (2b) $667,700, (2c) $595,700. Noted Sept. 30.

★**Wash., Cosmopolis** — Grays Harbor Co. (Montesano) let contract building concrete structure with wooden approaches over High Slough, near here, to Grays Harbor Paving Co., Aberdeen, $15,700.

★**Alta., Banff**—Dept. Pub. Wks., Ottawa, Ont., let contract building substructure, approach and spans for bridge over Bow River, here, to Fegles Constr. Co. Ltd., Ft. William, Ont., $169,900; structural steel, to Dominion Bridge Co., Lachine, Que., $73,886.

Streets and Roads

PROPOSED WORK

Massachusetts—State Highway Dept., Boston, plans to pave state highway from Connecticut State line to Westfield. About $150,000.

Mass., Westfield—Town and Hampden Co. plan to repair 13,791 ft. Southampton Rd. from town line to Pond Rd. About $59,000.

New York—State Highway Dept., 55 Lancaster St., Albany, having plans prepared for building Victor-Mendon Highway, to include overgrade crossing. About $88,000. F. M. Williams, state highway engr.

N. Y., New York—H. H. Curran, pres. Manhattan Bor., rejected bids received Oct. 18, regulating and repaving 2nd Ave., also 125th St. from 2nd to 3rd Aves., wood block. Work will be readvertised. Noted Oct. 21.

N. Y., Syracuse—City plans to sell $18,000 bonds Nov. 16 to build sidewalks, also $450,000 bonds to improve streets, etc.

Pennsylvania—State Highway Dept., Harrisburg, rejected bids received Oct. 13, repaving roads in Blair, Huntingdon, Clinton, Montgomery, Northampton and Somerset Counties. Noted Oct. 21.

Md., Baltimore—See "Sewers."

West Virginia—Citizens voted in favor of amendment to State Constitution providing for bond issue of $50,000,000 to build hard surfaced roads throughout state. A. Fortney, Charleston, chn. State Rd. Comn.

N. C., Boone—Watauga Co. sold $25,000 bonds to grade surface and build necessary bridges on portion Daniel Boone Trail Highway.

N. C., Louisberg—Cypress Creek Twp. plans to sell $40,000 bonds to build 5 mi. road from here toward Spring Hope, 30 ft. wide, Franklin Co. M. S. Davis, Louisburg, engr.

Alabama—State Highway Comn., Montgomery, had plans prepared for grading, draining and surfacing 14 mi. Jackson Highway from Axis to Calvert, Mobile Co., gravel, cost $220,000; 20.5 mi. Montgomery-Tuskegee Rd. from Tuskegee to Montgomery Co. line, Macon Co., gravel, $380,000; 12.42 mi. Selma-Mobile Rd., Wilcox Co., gravel, $200,000; 11.18 mi. State Trunk Rd., Montgomery Co., clay gravel, $190,000; 8.02 mi. Hartselle-Cullman Rd., from Morgan Co. line to point 3½ mi. north of Cullman, Cullman Co., bituminous macadam on 2 in. penetration base, $220,000. W. S. Keller, state highway engr.

Alabama—State Highway Comn., Montgomery, soon receives bids grading, draining and surfacing 15.966 mi. State Rd. from Garden City south to Warrior River, Blount Co., bituminous macadam. W. S. Keller, state highway engr.

Ky., Letcher—Comrs. Letcher Co. plan to improve various roads. About $400,000.

O., Garfield Heights (Cleveland P. O.)—Village plans to grade and build culverts on Orchard St., involving 9,039 cu.yd. grading. H. Bohning, Turney Rd., Cleveland, clk.

O., Poland—Mahoning Co. (Youngstown), plans to curb and pave Main St., brick, also repair and pave Youngstown-Poland Rd. and Boardman-Poland Rd., macadam and brick, 10 mi. long, 18 ft. wide. About $900,000.

O., Sandusky—City voted $244,000 bonds to resurface streets in downtown section.

Kan., Atchinson—Atchinson Co. had plans prepared grading and building culverts on 3.077 mi. Parallel White Way, Federal Aid Project 72, 32 ft. wide. About $44,000. R. Kerr, 604 Riley St., engr.

Missouri — State Highway Dept., New Madrid, received no bids Oct. 25, building 19.81 mi. Kings Highway, Federal Aid Project 40, New Madrid Co. About $228,477. Noted Oct. 7.

Mo., Carthage—Jasper Co. had surveys made graveling and building concrete culverts on 6 mi. Carthage-Springfield Rd. About $31,000. F. B. Newton, Carthage, engr.

Okla. Oklahoma — City opens bids in spring grading and paving with concrete 13 mi. various streets, 18 ft. wide. H. C. Adams, 220½ North Robinson St., engr.

Tex., Dallas—Dallas Co. having plans prepared resurfacing 1½ mi. Dallas Co. Viaduct, 30 ft. wide, asphaltic oil on tar preparation over present wood block pavement. About $15,000. Nagle, Witt, Rollins Co., Court House, co. engrs.

Tex., Ft. Worth—Tarrant Co. having specifications prepared paving about 15 mi. Central Ave. from Main St. to Grand Ave.; Lincoln Ave. from Center to Circle Sts.; Jefferson Ave. from Mississippi to Yuma Aves.; Forest Blvd. from Rosedale St. to Park Pl. Ave.; Park Pl. Ave. from 8th Ave. to Forest Blvd.; Barnard St. from Jennings Ave. to Hemphill St.; Elmwood Ave. from Mississippi to Yuma Aves.; Burnet St from North to 10th Sts.; College Ave. from Capps to Cantey Sts.; College Ave. from Bowie to Lowden Sts.; Galveston Ave. from Tucker to Rosedale Sts.; Evans Ave. from Baltimore to Mulkey Sts. Work involves 98,000 sq.yd. oncrete, asphalt or wood block on concrete base. About $500,000.

Ariz., Phoenix—City election Nov. 27, to vote on $45,000 bonds to pave certain streets and alleys.

Wash., Seattle—City rejected bids filling and paving Seattle Blvd., et al. About About $178,873. Noted Nov. 4.

Wash., Yakima—City plans to pave, curb and gutter 17 blocks North 3rd, North 4th, B and C Sts., et al, 32 to 50 ft. wide, one course portland concrete cement, bituminous concrete or bitulithic pavement on portland cement or concrete or block base. C. F. Wilson, Yakima, engr.

Cal., Riverside—Rd. Supervs. Riverside Co. plans to pave 17.1 mi. Impvt. Dist. 7, 9 ft. wide, 5 in. concrete, reinforced with metal fabric. About $323,000. A. C. Fulmor, co. engr.

Que., Montreal—Administrative Comn. has provided $1,000,000 in 1921 budget for street paving work.

Manitoba—Provincial Government, Winnipeg, receives bids in spring building 756 mi. roads and 63 bridges. About $2,225,000.

BIDS DESIRED

N. Y., Brooklyn—Until Nov. 17, by E. Riegelmann, boro. pres., Boro Hall, regulating and repaving with permanent asphalt on concrete foundation roadway of Conover St. from Sullivan to Wolcott Sts., Sullivan St. from Conover to Van Brunt Sts., Fair St. from Prince St. to Fleet Pl.; Grade 1 granite on 6 in. concrete foundation (old granite blocks recut) roadway of Freeman St. from West St. to Manhattan Ave., Liberty St. Plaza at Brooklyn Bridge, 53rd St. from 1st to 2nd Aves.; Grade 1 granite on concrete foundation (old granite blocks recut), Jay St. from Front to Prospect Sts., Prospect St. from Jay to Bridge Sts.; permanent asphalt on 6 in. concrete foundation, Kingsland Ave. from Meeker Ave. to Withers St., and from Skillman to Maspeth Aves., Withers St. from Havemeyer St. to Union Ave., Starr St. from Irving to Wyckoff Aves., Stanhope St. from Myrtle to Wilson Aves., 82nd St. from Narrows Ave. to Colonial Rd.; permanent asphalt and Grade 1 granite on 6 in. concrete foundation (old granite blocks recut), Nostrand Ave. from Empire Blvd. to Flatbush Ave.

N. Y., New York—Until Nov. 18, by H. H. Curran, pres. Manhattan Boro., Room 2034, Municipal Bldg., regulating and repaving with sheet asphalt on concrete foundation, roadway of West End Ave. from 74th to 91st Sts. and from 69th to 72nd Sts., also 33rd St. from 1st to 3rd Aves.

N. Y., New York—Until Nov. 18, by H. Bruckner, pres. Bronx Boro., Municipal Bldg., Crotona Park, Tremont and 3rd Aves., regulating, grading, curbing, laying sidewalks, etc., on Sacket Ave. from Williamsbridge to Eastchester Rds., also protecting with rock fill outlet of sewer in White Plains Ave. and East River, in connection with extension of sewer 100 ft. north of bulkhead line to pier head line.

N. J., Newark—Until Nov. 16, by Dept. Street & Pub. Impvts., City Hall, improving Ridgewood Ave. from West Runyon St. to north side of Hawthorne Ave. and from south side of Hawthorne Ave. to Marie Pl., involving 5,250 sq.yd. asphalt pavement, 750 lin.ft. new bluestone curb, 1,850 lin.ft. old curb redressed and 500 sq.ft. new cement sidewalks.

N. J., South Orange—Until Nov. 16, by Twp. Comn., improving Union Ave. from Irvington Ave. to point 1,119 ft. south, involving 1,000 cu.yd. earth excav., 3,300 sq. yd. 8 in. macadam pavement, 2,300 ft. cement curbs and gutters, etc. E. R. Halsey, 164 Market St., Newark, twp. engr.

Pa., Phila.—Until Nov. 16, by Dept. Pub. Wks., City Hall, grading Charles, Erdrick, Montague, Algard, Cottage and Gillespie Sts., from Tyson to Princeton Sts. Rockland and Eleanor Sts. from A to D Sts., Ella, Ormes, Roschill and Boudinot Sts. from Ruscomb to Rockland Sts., B and C Sts. from Eleanor to Ruscomb Sts. (Schedule A); asphalt paving Annsbury St. from 5th to 6th Sts., Darien St. from Bristol to Cayuga Sts., Jasper St. from Bucklus to Frankford Sts., Lawrence St. from Tabor to Olney Sts., 7th St. from Chew to Nedro Sts., 62d St. from Lebanon St. to point 570 ft. south of Lancaster Ave. (Schedule B); furnishing and delivering c.i. counterweights for Passyunk Ave. Bridge, over Schuylkill River (Schedule C); furnishing motor trucks and teams for 7th Highway Dist. for remainder of 1920 (Schedule D); furnishing lumber for stable (Schedule E);

Streets and Roads (Continued)

furnishing cement, sand, stone, slag and pebbles (Schedule F); furnishing material and equipment for division street cleaning (Schedule G.) F. H. Craven, dir.

Maryland—Until Nov. 16, by State Rd. Comn., 601 Garrett Bldg., Baltimore, grading and draining 3.04 mi. state highway from Little Gunpowder Falls toward Aberdeen, Harford Co.—Contr. H-26; advertised in this issue.

D. C., Wash.—Until Nov. 16, by Dist. Comrs., Dist. Bldg., grading 16,500 cu.yd. Connecticut Ave. N. W., from Pierce Mill Rd. to Chappell Rd.

North Carolina—Until Nov. 22, by State Highway Comn., Raleigh, improving 8¼ mi. road between Hornet Creek and city limit of Whitakers, Federal Aid Project 73, 18 ft. wide, Nash Co., involving 12 acres clearing and grubbing, 48,700 cu.yd. common excav., 22,750 cu.yd. topsoiling, 1,599 cu.yd. Class A and 86 cu.yd. Class B concrete, 149,590 lb. reinforcing steel, 5,340 ft. untreated timber piles, 1,210 lb. expansion plates and bolts, etc.; 7.63 mi. road between Wilson-Wayne Co. line and Wiggins Mill, Federal Aid Project 127, 18 ft. wide, Wilson Co., 5 acres clearing and grubbing, 22,700 cu.yd. common excav., 20,050 cu.yd. topsoiling, 220 cu.yd. Class A and 63 cu.yd. Class B concrete, 27,500 lb. reinforcing steel, 510 ft. untreated timber piles, 470 lb. expansion plates and bolts, etc., 6¼ mi. road between Wilson Twp. line and Wilson-Nash Co. line, Federal Aid Project 117, 18 ft. wide, Wilson Co., 5 acres clearing and grubbing, 29,400 cu.yd. common excav., 16,500 cu.yd. topsoiling, 25,000 cu.yd. overhaul, 271 cu.yd. Class A and 28 cu.yd. Class B concrete, 24,510 lb. reinforcing steel, 230 lb. plates and bolts, etc. W. S. Fallis, state highway engr.

Georgia—Until Nov. 30, by State Highway Dept., at office of W. C. Caye, Jr., div. engr., Americus, building 5 mi. Georgetown Ft. Gaines Rd. Work involves 30,500 cu.yd. common and 1,726 cu.yd. borrow excav., 2 acres clearing and grubbing, 39,232 sta.yd. overhaul, 13,094 cu.yd. sand clay surfacing, 194 lin.ft. 18-24 in. pipe, 19.44 cu.yd. headwall concrete, 32.96 cu.yd. Class "A" concrete and 2,119 lb. reinforcing steel.

Ala., Columbiana—Until Nov. 22, by Bd. Revenue, Shelby Co., building road from Vincent via Calcis, Sterrett, Vandiver and Dunnavant to Shelby Co. line, on top of Oak Mountain.

O., Middletown—City receiving bids grading, draining, laying water mains and paving Hydraulic St., brick or asphalt. About $35,000.

Indiana—By Bd. Co. Comrs. building roads in following counties:

Nov. 15, Lake Co., Crown Point, A. J. Burns et al Rd., in North Twp., gravel. G. M. Foland, aud.

Nov. 22, Shelby and Bartholomew Counties, Shelbyville, 13,210 ft. G. K. Smith Rd., on county line between Shelby and Bartholomew Counties and between Washington Twp., Shelby Co. and Hancock and Flat Rock Twps., in Bartholomew Co., gravel. W. W. Leslie, aud.

Kan., Columbus—Until Dec. 1, at office of County Clerk, building 2.95 mi. Sect. A, Federal Aid Project 71 and 13.005 mi. Sect. A, Federal Aid Project 72. C. M. Cooper, co. engr.; advertised in this issue.

Kan., Oskaloosa—Until Nov. 15, by Comr. Jefferson Co., building 56,641 ft. road on Sect. C Project 48, 18 ft wide, involving 1,436 lin.ft. 18-36 in. rein.-con. pipe, 497.75 cu.yd. Class A and 109.95 cu.yd. Class C concrete, 30,186 lb. steel, 72,619 cu.yd. earth and 2,180 cu.yd. solid rock excav., 13,739 sq.yd. bituminous macadam, etc. Kansas Eng. Co., Topeka, engrs.

Kan., Oskaloosa—Until Nov. 15, by Jefferson Co., grading, paving and building culverts on 75,484 ft. Sect. A and B of County Project 48, 18 ft. wide, involving 1,496 lin.ft. 18-36 in. rein.-con. pipe, 629.8 cu.yd. Class A and 227.5 cu.yd. Class C concrete, 41,615 lb. steel, 89,450 cu.yd. earth and 1,000 cu.yd. solid rock excav. and 151,281 sq.yd. bituminous macadam. Kansas Eng. Co., Topeka, engrs.

Missouri—Until Nov. 19, by State Highway Dept., Salem, building 10.5 mi. state road from Salem, westward, State Aid Project S 20.11, Dent Co., involving 51,156 cu.yd. earth and 30 cu.yd. rock excav., 11,709 cu.yd. borrow, 100 cu.yd. per 100 ft. overhaul, 227.7 cu.yd. Class "B" and 88.4 cu.yd. Class "C" concrete masonry, 21,848 lb. reinforcement for concrete masonry, 844 lin.ft. 12-48 in. corrugated iron pipe culvert, cost $37,989; rein.-con. slab superstructure, on Sta. 638 plus 18, 18 cu.yd. Class "A" and 73.1 cu.yd. Class "B" concrete, 5,140 lb. reinforcing steel, $2,952; rein.-con. slab superstructure, on Sta. 443 plus 75, 2.1 cu. yd. Class "A" and 77.2 cu.yd. Class "B" concrete, 5,760 lb. reinforcing steel, $3,242, both on above project.

Missouri—Until Nov. 24, by State Highway Dept., California, building various sections of Southern Highway, State Aid Project S 20.14, Moniteau Co., .98 mi. (Cole Co. line relocation) 24 ft. wide, involving 6,393 cu.yd. earth and 2,000 cu.yd. rock excav., 29.1 cu.yd. Class "B" concrete masonry, 2,131 lb. reinforcement for concrete masonry, cost $10,381; .84 mi. (McGirk relocation), 24 ft. wide, 3,484 cu.yd. earth excav., 5.6 cu.yd. Class "C" concrete masonry, etc.; $3,025; .69 mi. Sect. A Clarksburg Project), 24 ft. wide, 2,738 cu.yd. earth and 400 cu.yd. rock excav., 7.4 cu.yd. Class "B" concrete masonry, 560 lb. reinforcement for concrete masonry, $3,240; .8 mi. (Sect. B Clarksburg Project), 24 ft. wide, 3,223 cu.yd. earth excav., 31.2 cu.yd. Class "B" concrete masonry, 2,034 lb. reinforcement for concrete masonry, $3,557; .35 mi. (Brants Relocation), 24 ft. wide, 5,798 cu.yd. earth excav., 4.8 cu.yd. Class "C" concrete masonry, etc., $4,692.

Tex., Ballinger—Until Nov. 18, by O. L. Parish, judge, Runnels Co., grading, surfacing and draining 5.76 mi. Wichita Valley or Ballinger-Abilene Rd., involving 5,288 cu.yd. borrow and 27,114 cu.yd. earth excav., 17,720 lb. reinforcing steel, 12,291 cu.yd. gravel, to be furnished by county, 216.5 cu.yd. Class "A," 34.5 cu.yd. Class "B" and 2.7 cu.yd. Class "C" concrete. About $50,530. J. L. Dellis, co. engr. Noted June 10.

Tex., Nacogdoches—Until Nov. 15, by J. M. Marshall, judge Nacogdoches Co., grading, surfacing and building rein.-con. and steel bridges and culverts on 19.58 mi. Highway 35, Federal Aid Project 201, involving 143 acres clearing and grubbing, 67,927 cu.yd. earth borrow, 65,765 cu.yd. earth and 844 cu.yd. loose rock excav., 239,472 lb. structural and 46,043 lb. reinforcing steel, 44,871 cu.yd. gravel to be furnished by county, 422.9 cu.yd. 1:2:4, 278.08 cu.yd. 1:2½:5 and 133.28 cu.yd. 1:3:6 concrete etc., cost $249,822; 9.73 mi. Highway 35 from here to Angelina Co. line, 68 acres clearing and grubbing, 22,971 cu.yd. borrow and 38,211 cu.yd. earth excav., 7,724 lb. reinforcing steel, 19,043 cu.yd. gravel to be furnished by county, 66.76 cu.yd Class "A," 45.37 cu.yd. Class "B" and 47.48 cu.yd. Class "C" concrete, etc., $118,200; including 10% for enginering and contingencies; 23.17 mi. Highway 21 from Gonzales to San Augustine, 169 acres clearing and grubbing, 89,449 cu.yd. borrow and 132,381 cu.yd. earth excav., 60,319 lb. reinforcing and 344,741 lb. structural steel, 45,389 cu. yd. gravel, 688.2 cu.yd. Class "A," 323.3 cu. yd. Class "B" and 176.9 cu.yd. Class "C" concrete, etc., $318,600. L. Acker, co. engr. Noted July 22 and Aug. 5.

Wash., Montesano—Until Nov. 19, by city, grading, clearing, grubbing and installing cement culverts, walks, etc., on Boone St., et. al. About $65,000. A. H. Blood, Aberdeen, engr.

Quebec—Until Dec. 17, by Dept. Pub. Rds., Quebec, building 20 mi. Sherbrooke Highway. About $300,000.

Ont., Westboro—Until March 30, by J. Gamble, city clk., building 4 mi. macadam roadway. About $40,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Chelsea**—City let contract resurfacing various streets, involving 2,000 sq.yd. Warrenite-bitulithic, to Warren Bros. Co., 142 Berkeley St., Boston.

★**Conn., New Haven**—City let contract paving Portsea and Water Sts., concrete, to C. D. Blakeslee & Son, 58 Waverly St. Cost to exceed $15,000.

★**N. Y., New York**—H. H. Curran, pres. Manhattan Boro, let contracts regulating and repaving Lexington Ave. and 125th St. from 1st to 2d Aves., to W. J. Fitzgerald, 150 Nassau St., $62,164 and $49,360, respectively; 125th St. from 2d to 3d Aves., and Lexington Ave., to P. J. Kearns, 2306 Creston Ave., $41,727 and $9,974, respectively; Washington St., to O'Rourke Constr. Co., $218,413; East 24th St., to Burnside Contg. Co., 270 Burnside Ave., $29,085. Noted Oct. 21.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids Nov. 1, regulating and repaving (a) Chambers St. from Greenwich to West Sts., (b) Canal St. from Centre St. to Bway., from C. Hellbrock. (a) $20,278, (b) $19,598; P. J. Kearns, 2306 Creston Ave., (a) $21,17[illegible] $21,919. Noted Oct. 28.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., received bids N[illegible] regulating and repaving with sheet as[illegible] West 5th St. from 7th to 9th Aves., [illegible] J. L. Brusstar, Harlem River and [illegible] St., $39,416; Asphalt Constr. Co., 2197 [illegible]ison Ave., $40,802; W. J. Fitzgerald, [illegible] West 45th St., $41,531. Noted Oct. 28.

★**N. J., Roosevelt**—Bd. Freeholders [illegible]dlesex Co. (New Brunswick), let co[illegible] paving Blazing Star Rd., here, in[illegible] 8,256 sq.yd. bituminous concrete, to [illegible] Constr. Co., 6 Spring St., New Brun[illegible] $55,348.

★**Pennsylvania**—State Highway [illegible] Harrisburg, let contract repaving Ro[illegible] Indiana Co., to McCrady Bros., [illegible] Braddock, $248,648; Route 11, Luzerne, to H. B. Sproul Constr. Co., Inc., 218 A[illegible] Ave., Scranton, $109,467; Route 17[illegible] coming Co., to R. J. DeLong, 228 W[illegible] St., Williamsport, $44,696; Route 181, [illegible] and South Strabane Twp., Washington, to Burgess & Dorrier, Scottsville, Va., [illegible] 495. Noted Oct. 21.

★**Pa., Tullytown**—Comrs. Bucks [illegible] Doylestown, let contract building 7,18[illegible] Main St., concrete, part of Pennsylva[illegible] State Highway, to B. Foster Co., P[illegible]burgh, $117,371.

★**North Carolina**—State Highway Comm., Raleigh, let contract building 3.93[illegible] road betwen Grants Creek and Salisbury, Federal Aid Project 57, 16 ft. wide, Rowan Co., involving 6,210 sq.yd. "Topeka" surfacing and 7,100 sq.yd. combination cement concrete header and base course, to R. M. Hudson Co., Candler Annex, Atlanta, Ga., $24,353. Former contract rescinded. Noted July 29, under "Salisbury."

Louisiana—Bd. State Engineers, Room 332, Maison Blanche Annex Bldg., New Orleans, received bids building (1) 8.35 mi. Sect. A, Covington-Hammond Highway, (2) 12.51 mi. Sect. C, Covington-Slidell Highway, (3) 13.1 mi. Sect. D, Covington-Slidell Highway, St. Tammany Parish, from Holton Lumber Co., Uneedas, (1) $104,371; Lawrence Nixon & Phillips, Jackson, Miss., (1) $106,137; (2) $112,393, (3) $86,705; Peterman & Loustalot, Franklin, (1) $108,977, (2) $107,607, (3) $85,381; J. D. O'Reilly, Camp and Common Sts., New Orleans (2) $120,379; St. Tammany Constr. Co., Covington, (3) $86,322.

★**Ohio**—State Highway Dept. at office of Comrs. Scioto Co. (Portsmouth) let contract to S. Monroe & Sons, Portsmouth grading, building bridges and culverts and paving 1.997 mi. Sect. B Portsmouth-Oakhill Rd., monolithic brick, $96,861; 1.794 mi. Sect. A-3 Portsmouth-Jackson Rd., monolithic brick $94,894; to A. E. Simpson, Portsmouth, 2.998 mi. Sect. B-1 Portsmouth-Lucasville Rd., waterbound gravel, $48,084. Noted Oct. 21.

O., Garfield Heights (Cleveland P. O.)—Village received bids Oct. 25, paving Christina Ave., involving 25,350 sq.ft. asphalt from Cleveland Trinidad Paving Co., The Arcade, Cleveland, $20,296; Enterprise Paving & Constr. Co., 8440 Bway., Cleveland, $21,031. Noted Oct. 14.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 2.918 mi. Federal Aid Project 23, Sect. C, 16 ft. wide, Alcona Co., involving 27,391 sq.yd. gravel surface, 314 lin.ft. tile culverts, etc., to J. Decker, Rogers, $42,129; grading and surfacing 3.191 mi. Federal Aid Project 51, Sect. A, 16 ft. wide, Sanilac Co., 29,886 sq.yd. gravel, 368 lin.ft. tile culverts, etc., to Wilton & Karrer, Port Huron, $53,967; grading and draining 4.515 mi. State Trunk Line Rd. 54-5, Sects. B, C and E, Newaygo Co., to Kalamazoo Constr. Co., Kalamazoo, $55,415. Sect. B involves 68,709 cu.yd. earth excav., at $0.55 per cu.yd., 36 lin.ft. 18 in. encased tile culvert, $4, 1,694 lb. steel reinforcement, $0.10, 22.6 cu.yd. 1:2:4 and 22.5 cu.yd. 1:3:6 concrete, $25 each, etc.; Sect. C, 17,425 cu. yd. earth excav., $0.55, etc.; Sect. E, 8,109 cu.yd. earth excav., $0.55, 1,153 lb. steel reinforcement, $0.10, 13.5 cu.yd. 1:2:4 and 61.2 cu.yd. 1:3:6 concrete, $25 each, etc. Noted Oct. 21 under "Harrsville and Newaygo."

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing State Trunk Line Rd. 20-7, Sect. B, Clare Co., involving 10,780 cu.yd. earth excav., 13,956 sq.yd. gravel, etc., to W. Pierson and W. H. Allswede Hersey, $19,904

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 1.582 mi. State Trunk Line Rd. 10[illegible]

Streets and Roads (Continued)

20 ft. wide, to Bd. Rd. Comrs. Wayne Co., Detroit, $115,563. Work involves 6,022 cu.yd. earth excav., at $1.25 per cu.yd. 6,100 lin.ft. 18 in. vitr. tile drain, $2.50, 35 lin.ft. 48 in. encased tile culvert, $4, 282.5 cu.yd. 1:2:4 concrete, $59, 6,652 lb. steel reinforcement, $0.08, 49,500 lb. steel I beam, $0.06, 18,567 sq.yd. concrete pavement $4. Noted Oct. 7, under "Detroit."

★**Michigan** — State Highway Dept., dir. office, Port Huron, let contract grading and draining 5.322 mi. State Trunk Line Rds. 19-4 and 21-13, Sects. A, St. Clair Co., to W. J. Smith Constr. Co., 110 West Fort St., Detroit, $26,085. Noted Oct. 14.

★**Ill., West Frankfort**—City let contract grading, paving, etc., 3 blocks Logan St., to J. L. Dorris, Harrisburg, $23,936. Work involves 3,605 sq.yd. concrete, 2,952 lin.ft. integral curbing and 2,430 cu.yd. earth excav.

Wisconsin—State Highway Comn., at div. office 8, 1st Natl. Bank Bldg., Superior, received bids Oct. 6, grading Ashland-Iron River Rd., Federal Aid Project 121, Bayfield Co., from Swanson & Johnson, Superior, $176,461; McGucken Constr. Co., 425 East Water St., Milwaukee, $223,222; Universal Eng. Co., Eau Claire, $244,387. Noted Sept. 30.

★**Ia., Muscatine**—Muscatine Co. let contract grading, draining and building bridges and culverts on 14 mi. River to River Rd. from Moscoe to point near Stockton, involving 115,000 cu.yd. excav., to Littig Constr. Co., 50 1st Natl. Bank Bldg., Davenport. About $67,000. Noted July 29.

★**Ia., Vinton**—Benton Co. let contract paving 9 mi. Vinton and Belle Plaine Rd., to Moore-Yound Constr. Co., Waterloo, $420,971.

★**Minn., Hibbing** — City let contract for 21,000 sq.yd. Warrenite-bitulithic pavement, to General Contg. Co., 1254 Plymouth Bldg., Minneapolis.

★**S. D., Huron**—Comrs. Minnehaha Co. let contract graveling 6 mi. West 12th St. Rd., to L. E. Gage Constr. Co., Huron, $25,680; 11 mi. Garretson Rd., to W. R. Larson, Huron, $33,295.

★**Missouri**—State Highway Dept., Doniphan, let contracts to Doniphan Special Rd. Dist., c/o J. D. Gerlach, Doniphan, building 14.45 mi. Doniphan-Alton State Rd. (Pine-Barclay Special Rd. Dist.) 24 ft. wide, Federal Aid Project 21, Ripley Co., cost $50,117; rein.-con. skew slab superstructure and 1 concrete pier, on Sta. 735 plus 90, on above project, $6,905. Noted Oct. 21.

Missouri — State Highway Dept., Cassville, received bids Oct. 27, building 4.88 mi. Monett-Neosha Rd. (Monett Special Rd. Dist.), Federal Aid Project 121, Sect. A, Barry Co., involving (a) 31,052 cu.yd. earth excav., (b) 2,318 cu.yd. borrow, (c) 45,916 sq.yd. gravel surface course, (d) 437.9 cu. yd. Class "B" concete masonry, (e) 10.2 cu.yd. Class "C" concrete masonry, (f) 31,168 lb. reinforcement for concrete masonry, etc., from M. E. Gilloiz, Monett, (a) $0.55 per cu.yd., (b) $0.55, (c) $0.40, (d) $22, (e) $21, (f) $0.08, total $52,730; Ozark Paving Co., Joplin, (a) $0.55, (b) $0.55, (c) $0.40, (d) $24, (e) $23, (f) $0.09, total $53,937. Noted Oct. 14.

Missouri — State Highway Dept., Potosi, received bids Oct. 29, building 2.58 mi. De Soto-Potosi State Rd. from Jefferson Co. line southwestward, State Aid Project S 20.10, Washington Co., involving (a) 11,403 cu.yd. borrow, (d) 18,712 sq.yd. specification C gravel pavement, (e) 32.5 cu.yd. Class "B" concrete masonry, (f) 43 cu.yd. Class "C" concrete masonry, etc., from W. J. Knorpp, De Soto, (a) $0.55, (b) $2, (c) $0.40, (d) $0.30, (e) $25, (f) $22.50, total cost $22,337; W. R. Hanby, Potosi, (a) $0.55, (b) $2, (c) $0.50, (d) $0.31½, (e) $25, (f) $22.50, total cost $23,250.

Tex., Cameron—Milam Co. received bids Oct. 28, grading, surfacing and draining 8.769 mi. Highway 36, Temple Rd., from A. C. Buchanan & Son, Temple, $64,243; Mineral Springs Constr. Co., Mineral Springs, Ark., $66,005; Starkey, Smith & James, Houston, $69,683. Noted Oct. 21.

Tex., Dallas—Dallas Co. received bids Oct. 28, grading and building rein.-con. bridges, culverts and viaducts on 18.08 mi. Highway 1, Garland Rd., from Womack Constr. Co., Houston, $331,019. No bids received on concrete pavement. Work involves 58,425 cu.yd. borrow, 79,543 cu.yd. earth and 4,443 cu.yd. solid rock excav., 381,934 lb. reinforcing steel, 3,356.3 cu.yd. Class "A" and 1,468.05 cu.yd. Class "B" concrete, etc. Noted Sept. 30.

★**Tex., El Paso**—El Paso Co. let contract grading and draining 12.61 mi. Highway 1, Fabens Rd., to Lee-Moor Contg. Co., Two Republics Bldg., $50,851; including 10% for engineering and contingencies. Work involves 86,551 cu.yd. earth borrow, 104,754 cu.yd. earth excav., 486 cu.yd. Class "A" concrete, 32,418 lb. reinforcing steel, etc. Noted Nov. 4.

Nevada — State Highway Dept., Carson City, received bids Oct. 25, building portion of State Highway System, between Bowers Mansion and Lakeview, Washoe Co., from W. J. Schmidt, Riverside Hotel, Reno, $19,674; Armstrong & Baker, 655 Eureka Ave., Reno, $24,037.

Wash., North Yakima—Yakima Co. received bids Oct. 25, grading and paving 4 mi. Highway from Wapato to Donald, 20 ft. wide, from R. M. Hardy, Yakima, concrete base, asphalt or concrete surface, $77,801; Standard Asphalt Co., Portland, Ore., concrete base, black top, $82,411.

★**Wash., Seattle**—City let contract building concrete walks on Westlake Ave. et al. to D. H. Traphagen, Walker Bldg., $29,001. Noted Nov. 4.

California — State Highway Comn., 515 Forum Bldg., Sacramento, received bids Oct. 25, improving (a) 5.9 mi. State Highway, Route 15, Sect. B, Div. 3, Sutter Co., Federal Aid Project 62, Wadsworth Canal to Yuba City, (b) 8.1 mi. Route 10, Sect. B, Kings Co., westerly boundary to 1 mi. north of Lemoore, (c) 12.3 mi. Route 10, Sect. F, Div. 6, Fresno Co., Federal Aid Project 50, easterly boundary to Huron Rd., from J. Doyle, San Jose, (a) $148,341; M. Blumenkranz Farmers & Merchants Bank Bldg., Stockton, (a) $173,606; C. M. Benson, Los Angeles, (a) $188,005; Bates & Borland, Oakland Bank Savings Bldg., Oakland, (b) $412,691; G. F. Atkinson, Portland, Ore., (b) $415,961, (c) $258,621.

★**Cal., Fresno**—City let contract improving various streets, involving 4,766 sq.yd. Warrenite-bitulithic pavement on 4 in. concrete foundation and 6,667 sq.yd. on 3½ in. asphaltic concrete, to Thompson Bros., 1514 H St.

★**Cal., Modesto**—City let contract improving various streets, involving 3,006 sq.yd. Warrenite-bitulithic pavement on 4 in. asphaltic concrete, to Standard Paving Co., 9th and N Sts.

★**Cal., Riverside**—Bd. Supervs. Riverside Co. let contract paving Elsinore Corona Rd., to R. T. Shea Co., 169 West 7th St., $23,661.

Railways

PROPOSED WORK

North Carolina—Norfolk Southern R.R., Norfolk, Va., having surveys made for revision of alignment and grade reduction, including 4 or 5 extensive separate revisions. Work involves steam shovel work. Cost, several hundred thousand. F. L. Nicholson, Norfolk, ch. engr.

Michigan—Michigan Elevated Ry. Co., 711 Dime Bank Bldg., Detroit, applied to Pub. Utilities Comn., Lansing, for permission to construct first unit of elevated railway system from Detroit to Royal Oak. Work involves double system of monorail tracks supported on columns, set in heavy concrete foundations. About $491,000 per mi.

Ontario—Hydro Electric Power Comn. of Ontario, University Ave., Toronto, plans to build about 45 mi. electric railway from St. Thomas to Simcoe. F. A. Gaby, ch. engr.

BIDS DESIRED

Quebec—Until Nov. 30, by F. P. Brady, genl. mgr., Canadian Natl. Ry., Bank of Toronto Bldg., Montreal, clearing, fencing, grading, building bridges and culverts from Mile 35.16 Lachute Subdivision near Rinfret Junction to Mile 23, Grenville Subdivision near Fresniere, Two Mountains Co. H. T. Hazen, 27 Wellington St. E., Toronto, Ont., ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**British Columbia**—Miami Corp., 137 South La Salle St., Chicago, Ill., let contract building 5 mi. logging railway, including clearing, grading right of way, trestles, bridges, etc., from Fraser River, to Timber Limit W., to Northern Constr. Co., Carroll St., Vancouver. About $400,000.

Excavation and Dredging

PROPOSED WORK

Tenn., Memphis — Dredging — Big Creek D.D., Shelby Co., plans to enlarge Big Creek channel and cutoffs to reclaim 21,000 acres bottom land. About $250,000. Gaines & Carlisle, Falls Bldg., engrs.

Ill., Quincy — Drainage — Bd. Supervs. Long Island D. D. having surveys made for 6 mi. drainage work north of here. About $800,000. W. P. Bushnell, Quincy, ch. engr.

Wis., Manawa—Ditch—Waupaca Co. Drainage Bd. rejected bids received Oct. 25, for 16,000 cu.yd. ditching. Work will be readvertised. L. Schindler, 721 Clark St., Appleton, engr. Noted Oct. 14.

Tex., Ft. Worth—Dredging—City plans to dredge Trinity River from Paddock Viaduct to point near Lake Worth, also dig canal to connect with Lake. Plans also include 2 locks and dams to permit boats to run from here to Lake. About $250,000. W. D. Davis, mayor.

BIDS DESIRED

Fla., Tampa—Dredging—Until Nov. 22, by Bd. of Port Comrs., dredging 300 x 800 ft. slip. Former bids rejected. B. Thompson, city engr. Noted Oct. 7.

Miss., Cleveland—Ditches—Until Nov. 18, by Drainage Comrs. Merigold D. D. Bolivar Co., excavating Ditch 1, involving 82,258 cu.yd. excav., Ditch 2, 14,509 cu.yd.; Ditch 3, 28,596 cu.yd.; Ditch 4, 23,028 cu.yd.; Ditch 5, 6,168 cu.yd.; Ditch 6, 4,888 cu.yd. W. W. Boone, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Ill., Rochelle—Ditches and Drains—Gardner & Gardner, attys., Rochelle, received bids Oct. 26, building ditches and drains in Brush Grove D.D., Lee and Ogle Counties, from Streator Drain Tile Co., Streator, $25,000; McWilliams Dredging Co., 332 South Michigan Ave., Chicago, $97,887; H. Johnson, Sterling, $100,000; Carpenter-Henderson Co., 118 North La Salle St., Chicago, $105,000. Work involves 261,000 cu.yd. excav. and 25,200 ft. 12-27 in. tile. Noted Oct. 14.

★**Wis., Sheboygan**—Drainage—Sheboygan Co. Drainage Bd. let contract for labor for building Drainage Projects 1 and 2, to J. Von Deusseler Co., Sheboygan; furnishing and laying 20,000 ft. 6-10 in. drain tile, to Badger Cement Tile Co., Plymouth. Total cost about $25,000. Noted Sept. 23.

★**N. B., St. John**—Dredging—Dept. Pub. Wks., Ottawa, let contract dredging in deep water berths, to J. A. Gregory, West St. John, $0.32 per cu.yd. Total cost about $38,000.

Industrial Works

PROPOSED WORK

Me., Old Town—Bangor Ry. & Electric Co., 90 Harlow St., Bangor, plans to build 2 story, 70 x 75 ft. brick, steel and concrete sub. and pumping station, here. Crowell & Lancaster, Exch. Bldg., Bangor, archts.

Conn., Jewett City—Fisk Rubber Co., Chicopee Falls, does not plan to build factory, here. This item erroneously reported in our issue of Oct. 28.

Conn., Waterbury—B. Chatfield, West Main St., soon lets contract building 4 story, 44 x 110 ft. brick and steel warehouse, concrete foundation, on Riverside St. Private plans.

N. Y., New York—D. Kraus, c/o J. P. Whiskeman, archt. and engr., 153 East 40th St., having plans prepared for 2 story, 100 x 150 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 126th St. and Bway.

N. J., Maurer—Barber Asphalt Paving Co., Land Title Bldg., Phila., having plans prepared by Lockwood-Green, archts. and engrs., 101 Park Ave., New York City, for power house, manufacturing and machinery buildings, rein.-con. and steel, rein.-con. flooring, concrete foundation, here. About $1,000,000.

N. J., New Brunswick— F. H. Bent, state archt., 142 West State St., Trenton, opens bids about Nov. 17, building 2 story, 50 x 80 ft. ceramic plant, brick and terra cotta, here, for State Building Comn., Trenton. About $100,000. Noted April 29.

Pa., Great Bend—N. H. Parke Leather Co. having plans prepared by Lockwood-Green, archts. and engrs., 101 Park Ave., New York City, for 3 story, 75 x 200 ft., rein.-con. and steel tannery, rein.-con. flooring, concrete foundation, here. About $150,000.

Industrial Works (Continued)

Pa., Pittsburgh—Pittsburgh Truck Mfg. Co., 609 Neville St., having plans prepared by C. W. Hodgson, archt., Martin Bldg., for 1 and 2 story, 100 x 100 ft. garage and repair shop, brick and steel, rein.-con. flooring, on 44th St., along tracks of Pennsylvania R.R. About $75,000.

Ala., Tuscaloosa—State Health Comn., Montgomery, having plans prepared by D. O. Whilldin, archt., Title Guaranty Bldg., Birmingham, for 1 story, 50 x 136 ft. bakery and kitchen, rein.-con. and brick, at Brice Insane Hospital, here. About $75,000.

La., New Orleans—Marine Iron Wks., 1008-1014 Magazine St., plans to build 2 story, 73 x 113 ft. machine, boiler and blacksmith shop. About $75,000. J. De Tarnowsky, 602 Canal Bank Annex, archt. and structural engr.

O., Ashtabula—City voted $1,000,000 bonds to build new lighting and power plant.

O., Ashtabula—Pierce, Butler & Pierce Mfg. Co., 282 James St., Syracuse, N. Y., will probably build plant here. About $1,000,000.

O., Huron—Village voted $42,000 bonds to improve electric light plant.

O., New Philadelphia—Ladel Mfg. Co. preparing plans for 1 story, 88 x 300 ft., rein.-con. and steel factory. About $75,000. Private plans.

O., Warren—Warren Metallic Bed Co. having sketches made for 2 story, rein.-con. and steel factory, on 5 acre site. About $100,000.

Mich., Detroit—Detroit Packing Co., 40 Bushey St., having preliminary plans and estimates made by Packers Architectural & Eng. Co., archts. and engrs., Manhattan Bldg., Chicago, for first of 2 units of meat packing plant, to be 5 story, rein.-con., brick and steel, rein.-con. flooring concrete foundation, on Springwells Ave. About $1,000,000.

Mich., Detroit—Orling Bros., Heidelberg and Elmwood Aves., having plans prepared by L. Kamper, archt., 751 Book Bldg., for 3 story, 60 x 100 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation. About $200,000.

Mich., Detroit—Pollmar & Ropes, archts. and engrs., 45 State St., preparing plans for 1 and 2 story, 100 x 160 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Southern and Martins Sts. About $75,000. Owners name withheld.

Ill., Chicago—Felt & Tarrant, 1717 North Paulina St., having preliminary sketches made by L. G. Hallberg, archt., 116 South Michigan Ave., for adding machine factory, at 1700 North Paulina St.

Ill., Chicago—Universal Machine & Tool Co., 4146 West Taylor St., plans to build 2 story, 58 x 265 ft., brick and timber factory, concrete foundation. About $100,000. A. A. Tocha, 1225 North Ashland Ave., archt.

Wis., Antigo—Antigo Tractor Co. plans to build 150 x 200 ft., brick, rein.-con. and steel factory, brick foundation, on North Edison St. About $200,000. Architect will be selected at once.

Wis., Madison—Sheboygan Dairy Products Co., 936 North Water St., opens bids about Nov. 18, building 2 story, 70 x 140 ft., brick, rein.-con and steel dairy, rein.-con. flooring, concrete foundation, on West Wilson St. About $75,000. A. G. Souma, mgr. Private plans. Noted Oct. 21.

Wis., Racine—New York Market Co., 1015 16th St., rejected bids building 2 story, 96 x 110 ft. sausage factory, concrete and brick, rein.-con. flooring, concrete foundation. Work will be readvertised. Packers Architectural & Eng. Co., 431 South Dearborn St., Chicago, archts. and engrs. Noted Oct. 28.

Minn., Northfield—Theobald Flour Mills plan to build feed mill, concrete feed warehouse and 8 concrete tanks. About $100,000. Architect not announced.

Mo., St. Louis—Power Truck & Tractor Co., Beard and Goldsmith Sts., Detroit, Mich., plans to build factory, on Mead St and along tracks of Wabash R.R., here. About $250,000. Address B. B. Craven, Chemical Bldg., owners agt. Architect not selected.

Mo., St. Louis—Southern Car Wheel Co., Ry. Exch. Bldg., plans to build factory, on Marcus Ave., along the tracks of Terminal R.R. About $500,000. Architect not selected.

Ark, Earle—Grenada Cotton Compress Co. soon receives bids building cotton compress plant, to replace one destroyed by fire. About $100,000. Architect not selected.

Tex., Ranger—Ranger Boiler Wks. plans to build frame, sheet iron and brick factory. About $100,000. L. C. McFall, pres.

Idaho, Idaho Falls—Howard Pulp & Paper Co. having plans prepared for news print plant and power house. About $4,000,000. T. L. Tomlines, City Bank Bldg., Syacuse, N. Y., engr.

Wash., Seattle—J. R. Nevins, archt., Hoge Bldg., soon receives bid building 2 story, 160 x 750 ft. steel warehouse, on East Marginal Way and Alaska St., for A. M. Castle Co., 1201 1st St. S. Noted Oct. 14.

Wash., Tacoma—Olympic Ice & Machine Co. plans to build 4 story, 100 x 130 ft. cold storage and ice plant, rein.-con. and tile on F and East 25th Sts. About $125,000.

N. F., Grand Falls—A. Rothermere soon receives bids building extension to plant. About $180,000.

Que., Laprairie—La Boulangerie du Peuple Ltd. soon receives bids building bakehouse. About $45,000.

Que., Montmagny—Malleable Foundries Ltd. receive bids about Nov. 15, building foundry. Cost including equipment, $75,000.

Ont., East London—Stansell Motors Ltd., Amherstburg, plans to build factory here.

S. A., Peru, Lima—A. Grana, Lima, soon receives bids building cotton mill, rein.-con. and steel, rein.-con flooring, concrete foundation, here. About $500,000. Lockwood Green Co., 101 Park Ave., New York City, archts. and engrs.

BIDS DESIRED

Mass., Boston—J. C. Spofford, archt., 36 Bromfield St., receiving bids building 2 story, 100 x 300 ft., rein.-con. and brick garage, rein.-con. flooring, concrete foundation, on Boylston St., for E. G. Isenbeck, 95 Milk St.

Mass., Charlestown (Boston P. O.)—F. O. Lewis, engr. and archt., 50 Bromfield St., Boston, receiving bids constructing 7 story, brick and concrete mercantile building, on City Sq., for Charlestown Terminal Bldg. Co., 27 State St., Boston.

Conn., Norwalk—Emmens & Abbott archts., Washington Bldg., Stamford, receiving bids building 1 story, 50 x 150 ft. frame and cement service station, rein.-con. flooring, concrete foundation, on West Ave., for Fairbanks Storage Battery Co., 438 Atlantic Ave., Stamford. About $50,000.

O., Columbus—W. E. Lammeck Co., West 5th Ave., receiving bids building 1 story, 120 x 204 ft., brick addition to factory, concrete flooring. About $50,000. A P Lammeck, secy. Private plans.

Wis., Rice Lake—New Idea Potato Mchy. Co. receiving bids building 3 story, 80 x 130 ft., brick, rein.-con. and steel factory, brick foundation, on Main St. About $40,000. R. C. Chandler, secy. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Westbrook**—S. D. Warren & Co., Cumberland Mills, will build 1 story, 90 x 250 ft. brick and concrete warehouse, rein.-con. flooring, concrete foundation, here. About $50,000. Work will be done by day labor.

★**N. H., Bennington**—Monadnock Paper Mills let contract building 3 story, 100 x 100 ft. concrete and brick storehouse, rein.-con. flooring, concrete foundation, to Aberthaw Constr. Co., 27 School St., Boston. About $125,000.

★**Mass., Worcester**—Amer. Card Clothing Co., 93 Grafton St., let contract building 3 story, 67 x 171 ft. factory, with 9 x 20 and 14 x 34 ft. ells, mill construction, on Shrewsbury St., to G. B. Cutting, 67 Cedar St. About $150,000.

★**Mass., Worcester**—Tait Bros., Cass St., Springfield, will build 3 story, 60 x 120 ft. ice cream plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Shrewsbury St., here. About $75,000. Work will be done by day labor. Noted Nov. 4.

★**N. Y., Brooklyn**—Estate of W. Beard, c/o Gilbert & Ashfield, archts. and engrs., 350 Fulton St., let contract building 1 story, 150 x 160 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Richardson St., to F. J. Ashfield, 350 Fulton St. About $60,000.

★**N. Y., Canzenovia**—Diepress Co. will build 2 story, 60 x 150 ft., rein.-con., brick and steel addition to factory, rein.-con. flooring, concrete foundation. About 000. Work will be done by day la

★**N. Y., New York**—Webb Bldg c/o Moore & Landseidel, archts. and 3rd Ave. and 148th St., will build 1 100 x 150 ft., brick and steel garage, con. flooring, brick and concrete found on Park Ave. and 174th St. About $ Work will be done by day labor.

★**N. J., Hoboken**—Chocolate Menk 1127 Clinton St., let contract build story, concrete and brick factory, to Fireproof Co., 8 West 40th St., New City. About $125,000. Noted Oct. 21

★**Pa., Pittsburgh**—Heyl & Patt Water St., let contract altering and ing addition to factory and office, and steel, rein.-con. flooring, on 1st and Water St., to Golden & Crick Co., 5th Ave., $60,014.

★**Va., Andover**—Central Supply Co. contract building 3 story, 48 x 100 ft. concrete warehouse and office, to Turner Constr. Co., 1713 Sansom St., Phila. About $100,000.

★**Mich., Detroit**—Consolidated Cigar Co. St. Aubin Ave., let contract building 3 story, 92 x 100 ft. brick and steel factory, brick foundation, to O. Misch Co., Chamber of Commerce Bldg. About $90,000. Noted Sept. 23.

★**Ill., Chicago**—G. W. Moore Co., 2144 Fulton Ave., let contract building 1 story, 120 x 144 ft., mill construction machine shop, concrete foundation, at 2128-44 Fulton Ave., to Carnegie Co., 189 West Madison St. About $75,000.

★**Wis., Delavan**—Delavan Dairy Co. let general contract building 2 story, 40 x 160 ft., brick, rein.-con. and steel condensory, rein.-con. flooring, brick foundation, on Main St., to O. Hoganson, Burlington. About $75,000.

★**Wis., Manitowoc**—Drost Box Mfg. Co. 1116 South 9th St., let general contract for second unit of factory, 3 story, 80 x 160 ft. brick, rein.-con. and steel, rein.-con. flooring, brick foundation, on South 9th St., to H. V. Herrting, Dempsey Bldg. About $75,000. Noted Oct. 7.

★**Wis., Schleisingerville**—Judell & Bogner, archts., Colby-Abbot Bldg., Milwaukee, let contract to G. Schwamb, Main St., building 2 story, 60 x 100 ft., brick, rein.-con. and steel factory, brick foundation, on Main St., here, for Zwebell Bros. Co., 428 Milwaukee St., Milwaukee. About $75,000. Noted Oct. 28.

★**Wis., Sheboygan**—South Side Garage, North 12th St. and Indiana Ave., let contract building 2 story, 45 x 112 ft. concrete, brick and steel garage, rein.-con. flooring, concrete foundation, on Indiana Ave., to C. F. Grasse & Son, 1543 South 11th St. About $75,000. Noted Oct. 28.

★**Wis., Wausau**—Wisconsin Valley Electric Co., 206 3rd St., will build water power and electric plant and dam, brick, concrete and steel. About $600,000. Work will be done by day labor.

★**Tex., Dallas**—Southwestern Forwarding Co., 1301-9 Broom St., let contract building 1 story, 120 x 534 ft., rein.-con. warehouse, rein.-con. flooring, on Harwood and Santa Fe Sts., to B. E. Howard, Harwood and Santa Fe Sts. About $150,000.

★**Que., Montreal**—Berliner Gramaphone Co. Ltd., 33 Lenoir St., let contract building 1 story, 53 x 88 ft. rein.-con. factory, on Lacasse St., to Atlas Constr. Co., Belmont St. About $75,000.

★**Que., Montreal**—Mountain St. Garage Co. let contract building 2 story, 89 x 138 ft. concrete, brick and steel garage, concrete foundation, to Grothe, Munn & Shea Co., 6 Cuthbert St. About $60,000. Noted Oct. 28.

Buildings

PROPOSED WORK

Mass., Chelsea (Boston P. O.)—Synagogue—Congregation Zedek, c/o S. S. Eisenberg, archt., Exch. Bldg., plans to build 3 story brick and timber, concrete foundation.

Mass., Chelsea (Boston P. O.)—Theatre and Store—J. H. Lacey, c/o Newhall & Blevins, archts., 9 Park St., Boston, plans to build 1 story, concrete, brick and steel, on Chelsea Sq.

Mass., East Longmeadow—Town Hall—Bd. Selectmen plans to build 2 story. About $75,000. Architect not selected.

Mass., Gardner—School—Town had plans prepared by F. I. Cooper Corp., archts., 33 Cornhill St., Boston, for 2 story, brick and steel addition. About $75,000.

Buildings (Continued)

Mass., Provincetown—Hospital—Town plans to build 2 story, brick and concrete. About $150,000. Architect not selected.

Mass., South Hadley — Science and Library—Mt. Holyoke College plans to construct science building, cost $300,000, and addition to library, $200,000. M. E. Wooley, pres. Architect not selected.

Mass., Springfield—School—Bd. Educ. plans to build 2 story, brick and steel, on Berkshire St. About $100,000. Architect not selected.

Mass., Springfield—Station—Boston & Albany R.R., South Sta., Boston, plans to remodel station, on Lyman St., here. About $2,000,000. F. B. Freeman Boston, ch. engr.

Mass., West Springfield (Spring field P. O.)—Club—West Springfield Odd Fellows, Inc., plan to build brick and steel, on Main and Park Sts. About $75,000. G. A. Chapman, pres. Architect not selected.

R. I., Bristol—Business—S. P. Colt, Popasquash St., plans to build 4 story, brick and marble, on Main St. About $200,000. Architect not announced.

R. I., Bristol—School—Town plans to build 2 story, brick and concrete. About $200,000. Architect not announced.

R. I., Providence—College—Brown University, Prospect St., plans to build 4 story, concrete, brick and stone addition. About $500,000. W. W. Bosworth, 527 5th Ave., New York City, archts.

R. I., Providence—Library—City plans to build 3 story, stone, brick and steel addition, on Fontaine St. About $500,000. Architect not announced.

R. I., Woonsocket—Church—St. Michaels Greek Catholic Church, Blackstone St., having plans prepared by W. F. Fontaine, archt., 285 Main St., for 1 story, brick and steel. Cost between $75,000 and $100,000.

R. I., Woonsocket—Church—Universalist Church Congregation, Main and Church Sts., plans to build 1 story, brick, stone and steel. About $125,000. Architect not announced.

R. I., Woonsocket—College—Church of the Precious Blood plans to build 3 story, concrete, brick and steel. About $100,000. W. F. Fontaine, 285 Main St., archt.

Conn., Ansonia—School—Trade School Comm. having plans prepared by L. W. Robinson, archt., 42 Church St., New Haven, for 2 story, brick and steel, on Clifton Ave. About $100,000.

Conn., Bridgeport—Church and Parish House—United Congregational Church, Broad and Gilbert Sts., plans to build stone, brick and steel. About $500,000. W. H. Day, rector. Architect not announced.

Conn., Bridgeport—School—Sts. Cyril & Methodius Church, Church St., plans to build 4 story, brick and concrete. About $250,000. J. Panik, pastor. Architect not announced.

Conn., Derby—School—City plans to build 2 story, brick and steel. About $75,000. F. J. Conway, 120 Hawthorne Ave., chn. Architect not selected.

Conn., Milford—School—Bd. Educ. plans to build 2 story, brick and steel addition to Walnut Beach School. About $85,000. Architect not selected.

Conn., New Haven—Bank—Mechanics Bank, Church and Center Sts., plans to build 1 story, concrete, brick and steel, on Church, Center and Gregson Sts. About $200,000. C. S. Palmer, 114 Whitney Ave., archt.

Conn., New Haven—Church—St Brendan Roman Catholic Church, 380 Sherman Ave., plans to build 1 story, brick and stone, on Whalley Ave. About $150,000. Architect not selected.

Conn., New Haven—Church—St. Joseph Roman Catholic Church plans to build 1 story, stone and steel, on Fountain St. About $125,000. J. J. McGivney, 118 Fountain St., pastor. Architect not announced.

Conn., New Haven—High School—City plans to build 3 story, brick and steel, on Fountain St. About $150,000. Architect not selected.

Conn., New Haven—Parish House—Trinity Church, 442 Temple St., plans to build 2 story, brick and concrete, on George St. About $100,000. Architect not announced.

Conn., Newington — Home — Connecticut Childrens Aid Society, 926 Main St., Hartford, plans to construct 1, 2 and 3 story home buildings here. About $500,000. Architect not selected. Project will mature in spring.

Conn., Rockville — Hospital — Rockville City Hospital plans to build 2 story, concrete, brick and steel, on High St. About $100,000. F. T. Markwell, 9 North Park St., chn. com. Architect not announced.

Conn., Southington — Hospital — Town plans to build fireproof hospital. About $100,000. Architect not selected.

Conn., South Manchester—Business—G. E. McNamara, 705 Main St., plans to build brick and steel, on Main and Pearl Sts. About $75,000. Architect not selected.

Conn., Stafford — High School — Town plans to build 3 story, concrete, brick and steel. About $250,000. Architect not selected.

N. Y., Brooklyn—Theatre—L. Allmendinger, archt. and engr., 20 Palmetto St., preparing sketches for brick and steel, brick foundation. About $80,000. Owners name withheld.

N. Y., New York — Clubhouse — Ladies Christian Union, West 49th St., having plans prepared by Ewing & Allen, archts. and engrs., 101 Park Ave., for altering brick and stone, at 151-159 East 36th St. About $80,000.

N. Y., Rochester—Schools—Bd. Educ. having plans prepared by E. S. Gordon, archt., 300 Sibley Blk., for P. S. 34, 2 story, 180 x 200 ft., cost $600,000, also Monroe Junior High School, on Alexander St., and Madison Junior High School, on Bronson Ave., both 3 story, 300 x 325 ft., $1,500,000 each, all to be brick and steel. Noted Jan. 22.

N. Y., Syracuse—Schools, etc.—City plans to sell $260,000 bonds Nov. 16, to improve schools, playgrounds, etc.

N. J., Atlantic City—High School—Bd. Educ. plans to build 3 story, concrete and brick. About $1,000,000. Address A. Bower, Atlantic and Pacific Aves. Architect not selected.

N. J., Bordentown—School—F. H. Bent, state archt., 142 West State St., Trenton, soon receives bids building 1 and 2 story, 84 x 160 ft. brick addition to industrial school, here, to include dining room, gymnasium and auditorium. About $160,000.

N. J., Morristown—City and S. H. Gillespie plan to build 5 mi. new road through private property from Washington St. across Ann St. to City Park and then to Bailey Hollow, 30 and 66 ft. wide. E. Howell, 10 Washington St., engr.

N. J., Tenafly—High School—Bd. Educ. rejected bids received Oct. 27, building school. About $100,000. Work will be readvertised. Noted Oct. 7.

Pa., Ebensburg—Court House—Comrs. Cambria Co. soon receive bids building addition to brick and stone. About $400,000. Former bids rejected. J. R. Gordon, 507 5th Ave., New York City, archt. and engr. Noted Oct. 14.

Pa., New Castle—High School—Trustees North Beaver Twp. authorized $90,000 bonds to build 2 story, 180 x 200 ft., here.

Pa., Phila.—Nurses Home—St. Agnes Hospital, Broad and Mifflin Sts., having plans prepared by F. R. Watson, archt., 1211 Walnut St., for 5 story, 84 x 161 ft., concrete and brick.

Pa., Phila. — Store, Theatre and Office — A. M. Nagle, Windber, having sketches made by H. L. Reinhold, Jr., 1513 Walnut St., for 3 story, 40 x 150 ft., concrete and brick here. About $100,000.

Pa, Williamsport—Church—St. Matthews Lutheran Church plans to build 2 story, 90 x 150 ft., rein.-con., brick and stone, on West 4th and Poplar Sts. About $100,000. A. M. Hall, 2015 West 4th St., member bldg. com.

Md., Baltimore—Church and Parsonage—First United Presbyterian Church, Madison Ave. and Biddle St., plans to build brick and stone, on Liberty Height Ave. and Grantley St. About $150,000.

Md., Baltimore—Schools and Engine Houses—See "Sewers."

N. C., Smithfield—Courthouse—Comrs. Johnston Co. plan to build 4 story, 79 x 117 ft., granite and Indiana limestone, tile flooring, on Market St. About $500,000. H. Barton, Greensboro, archt.

S. C., Columbia—Office and Temple—Trustees Masonic Lodge plan to build 6 story, 56 x 103 ft. rein.-con., brick and steel. About $250,000. J. B. Urquhart, Palmetto Bldg., archt.

Fla., Tampa—Church—W. S. Shull, archt., St. Petersburg, receives bids about Dec. 1, building 90 x 125 ft. rein.-con. or hollow tile and brick, rein.-con. flooring, concrete foundation, on Grand Central and Cedar Sts., for Christian Science Church. Cost between $75,000 and $100,000. H. L. Doliver, Box 1312, chn. building comm.

Ala., Birmingham — High School — Bd. Educ. having plans prepared by D. O. Whilldin, archt., Title Guaranty Bldg., for first unit of Central High School, 3 story, 150 x 330 ft., on 7th Ave. between 23d and 24th Sts. About $600,000.

Ala., Speigners—Penitentiary—State Convict Dept., State Capitol, Montgomery, plans to build rein.-con. penitentiary here, to accommodate between 600 and 1,000 people. Cost between $300,000 and $500,000. W. F. Feagin, dir.

Ala., Tuscaloosa—Dormitory, etc.—State Building Comm., Montgomery, having plans prepared by D. O. Whilldin, archt., Title Guaranty Bldg., Birmingham, and opens bids about Dec. 15, building 2 story, 107 x 235 ft. dormitory, also first units of dining hall, laundry and power house, brick and rein.-con., for Alabama Home for Feeble Minded, here. Cost $110,000 and $53,000 respectively.

Ala., Tuscaloosa—Hospital—Local Hospital Comm. plans to build hospital. About $125,000. S. F. Clabaugh, chn.

Miss., Leland—Church—Baptist Church soon lets contract building 2 story, 56 x 100 ft. brick and stone, concrete foundation. About $75,000. R. B. Spencer, archt. and H. J. Kramer, 540 Goodwyn Institute, Memphis, Tenn., associated archt.

La., Alexandria—Exchange—Cumberland Telephone & Telegraph Co., Carondelet and Poydras Sts., New Orleans, plans to build fireproof exchange, here. About $100,000. C. A. Stair, New Orleans, genl. mgr.

La., Baton Rouge — Exchange—Cumberland Telephone & Telegraph Co., Carondelet and Poydras Sts., plans to build fireproof exchange, here. About $75,000. C. A. Stair, genl. mgr.

La., Lake Charles—Exchange—Cumberland Telephone & Telegraph Co., Carondelet and Podras Sts., New Orleans, plans to build fireproof exchange, here. About $60,000. C. A. Stair, genl. mgr.

La., Monroe — Exchange — Cumberland Telephone & Telegraph Co., Carondelet and Poydras Sts., New Orleans, plans to construct fireproof exchange, here. About $500,000. C. A. Stair, genl. mgr.

La., New Orleans — Exchange — Cumberland Telephone & Telegraph Co., Carondelet and Poydras Sts., plans to construct fireproof extension to present building on Carondelet and Podras Sts., cost $300,000; also construct another new building, $50,000. C. A. Stair, genl. mgr.

La., Shreveport—Exchange—Cumberland Telephone & Telegraph Co., Carondelet and Poydras Sts., New Orleans, plans to build fireproof exchange, here. About $275,000. C. A. Stair, New Orleans, genl. mgr.

Tenn., Memphis—College—Presbyterian Church plans to build college, here. About $1,500,000. Address A. B. Curry, 1730 East Glenwood St.

O., Castalia—High School—City voted $175,000 bonds to build new high school.

O., Cleveland—Store and Office—D. H. Burnham & Co., archts., 209 South La Salle St., Chicago, open bids about Dec. 1, building 17 story, 67 x 189 ft., concrete, brick, steel and terra cotta, concrete foundation, for Taylor Stores Co., Euclid Ave. About $1,250,000.

O., Columbus—Schools—Bd. Educ., Town and High Sts., having preliminary sketches made by Riebel & Sons, archts., New Natl. Bank Bldg., for 3 grade schools, one on Douglas Ave., one on Avondale Ave., and other on Milo Ave.; each 2 story, 110 x 200 ft., brick and concrete. About $265,000 each.

O., Cuyahoga Falls—High School—City voted $375,000 bonds to build high school.

Buildings (Continued)

O., Kenmore—School—City voted $200,000 bonds to build schools.

O., Massillon—Bank and Office—First Natl. Bank having plans prepared by W. R. Powell, archt., Rose Bldg., Cleveland, for 6 story, 40 x 144 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Main St. About $300,000. P. L. Hunt, pres.

O., Niles—Schools — Bd. Educ. plans to build two 2 story, 150 x 150 ft. schools. About $150,000.

O., Vermillion—Memorial—Village voted $250,000 bonds to build soldiers and sailors memorial.

O., West Liberty—High School—City voted $75,000 bonds to complete new high school.

O., Youngstown—Church and Community—Mahoning Ave. Methodist Episcopal Church plans to construct church and community building. About $150,000. Address G. A. Gibson, 15 North Brockway Ave.

Ind., Gary—Church and Community—First Methodist Episcopal Church having plans prepared by Lowe & Bollenbocker, archts., 108 South La Salle St., Chicago, and receives bids about Jan. 2, building 125 x 235 ft., rein.-con., brick, steel and stone, concrete foundation, on West 6th St. and Washington Ave. About $650,000.

Ind., Logansport — Bank — Logansport Loan & Trust Co. having plans prepared by Arney Co., archts., 10 South La Salle St., Chicago, remodeling 3 story, 50 x 125 ft., brick and concrete. About $100,000.

Mich., Ann Arbor—Dormitory—S. E. Remey and C. M. Agree, archts., Whitney Office Bldg., Detroit, open bids about Nov. 15, constructing 4 story, 60 x 200 ft., rein.-con., brick, steel and stone, concrete foundation. About $175,000. Owner's name withheld. Noted Oct. 21.

Mich., Detroit—Church—Central Christian Church, c/o J. De Tarr, member of official board, Putnam Ave., plans to build 2 story, rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on 2nd Blvd. About $500,000. Architect not selected.

Mich., Detroit—Market—T. Barlum & Sons, Cadillac Sq. having plans prepared by Rogers, Bonnah & Chaffee, archts., 528 Farwell Bldg., for 1 story, 100 x 100 ft., brick and steel, rein.-con. flooring, concrete foundation. About $75,000.

Mich., Detroit—Museum—Detroit Art Museum, Jefferson Ave. and Hastings St., plans to build 1 and 2 story, 150 x 300 ft., marble, on Woodward, Kirby, Farmsworth and John Sts. About $2,000,000. Architect not selected.

Mich., Detroit—Office—Bd. Educ., 50 Bway. Ave., plans to build 20 story, 100 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Gratiot and Library Aves. About $1,000,000. Architect not selected.

Mich., Highland Park (Detroit P. O.)—Nurses' Home—Detroit Osteopathic Hospital, Highland Ave. and 3rd St., having plans prepared by M. R. Burrowes, archt., 435 Woodward Ave., Detroit, for 3 story, 32 x 100 ft., rein.-con., brick, steel and stone, concrete foundation, on Highland Ave. About $75,000.

Mich. Lansing—Clubhouse—Lansing Agricultural College having preliminary sketches made by Pond & Pond, archts., 64 East Van Buren St., Chicago, for rein.-con., concrete foundation. About $500,000.

Mich., Redford—Temple—Masonic Lodge, c/o G. W. Graves, archt., 43 John R. St., Detroit, having plans prepared for 3 story, 60 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Grand River Ave. About $75,000.

Mich., Royal Oak—Bank, Stores and Offices—First Commercial Bank plans to build 2 story, 62 x 110 ft. About $200,000. F. D. Madison, archt.

Ill., Chatsworth—School—Bd. Educ. soon receives bids building school. About $160,000.

Ill., Chicago—Bank and Office—Lake Shore Trust & Savings Bank, having preliminary plans prepared by Marshall & Fox, archts., 721 North Michigan Ave., for 6 story, on Michigan Ave. and Ohio St.

Ill., Chicago—Bank and Office—Sheridan Trust & Savings Bank, Bway. and Lawrence Ave., having preliminary plans prepared by Marshall & Fox, archts., 721 North Michigan Ave., for 10 story, on Bway. and Lawrence Ave. Noted March 11.

Ill., Chicago—Chuch and Social Center—Evangelical Lutheran Immanuel Church, c/o E. E. Hall, archt., 123 West Madison St., having plans prepared for 1 and 2 story, 123 x 210 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Ellendale and Greenview Aves. About $400,000.

Ill., Chicago—Club—Chicago Womens Club, 410 South Michigan Ave., having preliminary sketches made by Pond & Pond, archts., 64 East Van Buren St., for 9 story, 104 x 120 ft., rein.-con. and steel, rein.-con. flooring, concrete foundation, on 11th St. between Wabash Ave. and Michigan Ave. About $1,100,000

Ill., Chicago—Field House—A. N. Rebori, archt., 410 South Michigan Ave., opens bids about Nov. 15, building 2 story, 80 x 120 ft., rein.-con., steel, brick and stone, rein.-con. flooring, concrete foundation, in Lincoln Park, for Lincoln Park Bd. About $100,000.

Ill., Chicago — Home — A. S. Alshuler, archt., 28 East Jackson Blvd., open bids about Dec. 1, building 3 story, mill construction, concrete foundation, for Orthodox Jewish Home, 1648 South Albany Ave.

Ill., Chicago—Juvenile Home—Cook Co., c/o E. E. Hall, archt., 123 West Madison St., having preliminary plans prepared for 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Roosevelt Rd. and Ogden Ave. About $500,000.

Ill., Willmette—School—W. H. Pruyn, Jr., archt., 122 South Michigan Ave., Chicago, opens bids about Jan. 1, building 2 story, 100 x 100 ft., concrete and brick, concrete foundation, for St. Francis Xavier School. About $100,000. Bids will be received from selected contractors only

Wis., Beaver Dam—School—St. Peters Church had plans prepared and opens bids about Jan. 1, building 2 story, 130 x 140 ft., brick and tile, rein.-con. flooring, concrete foundation. About $75,000. F. L. Kronenberg, Slichter Bldg., Madison, archt.

Wis., Clear Lake — School — Bd. Educ. having plans prepared by W. L. Alban, archt., 347 Endicott Bldg., St. Paul, Minn., for 2 story, rein.-con. and brick, brick foundation. About $75,000. E. Enderbohn, clk.

Wis., Cleveland—Church and Parsonage—Cleveland Lutheran Church, c/o Juul & Smith, archts., Imig. Bldg., Sheboygan, having plans prepared for 2 story, 55 x 104 ft., brick, rein.-con. and tile, concrete foundation, on Main St., here. Cost between $75,000 and $80,000.

Wis., Clintonville — Theatre — Royal Theatre plans to build 1½ story, 60 x 180 ft., brick, rein.-con., tile and stone, brick foundation on Main St. About $75,000. D. T. Hobson, mgr. Architect will be selected soon.

Wis., Merrill—Grade and High Schools—Secretary Bd. Educ. opens bids about Dec. 15, building 2 story, 40 x 175 ft. grade school and 2 story, 75 x 120 ft. addition to high school, rein.-con., brick and steel, concrete foundations. About $260,000. Parkinson & Dockendorff, Linker Bldg., La Crosse, archts. and engrs. Noted Sept. 30.

Wis., Milwaukee—Theatre—W. J. Sarres, 221 Grand Ave., having plans prepared by Rosman & Wierdsma, archts., 424 Jefferson St., for 1 story, 62 x 134 ft., brick, concrete and steel rein.-con. flooring, concrete foundation, on 35th and Lisbon Sts. About $75,000.

Wis., Milwaukee—Theatre—T. Saxe, 160 5th St., having plans prepared by M. Tullgren & Sons, archts., 425 East Water St., remodeling 2 story, concrete, rein.-con. flooring, on Gr and Ave. About $100,000.

Wis., Oconomowoc—Theatre and Office—P. Benzel and A. Fisher Co. having plans prepared by A. C. Clas, archt., 445 Milwaukee St., for 2 story, 68 x 115 ft., brick, rein.-con. and steel, brick foundation, on 5th St. About $100,000.

Wis., Racine—Church and School—W. C. Weeks, archt., 730 Ontario Ave., Sheboygan, opens bids about Jan. 15, building 1 and 2 story, 92 x 107 ft., brick, rein.-con. and steel, brick foundation, on Albert St., here, for Trinity Lutheran Church. About $125,000. F. L. Eseman, rector.

Wis., St. Croix Falls—School—Po[illegible] Training School Assn., Balsam Lak[illegible] plans prepared by W. L. Alban, arch[illegible] Endicott Bldg., St. Paul, Minn., for 2 [illegible] 57 x 99 ft., rein.-con. and brick, here [illegible] $75,000. G. Chadwick, supt.

Ia., Ft. Dodge—Hospital—Prot[illegible] Church Organization plans to build [illegible]pital. About $75,000. B. M. Osgood[illegible] terested. Architect not selected.

Ia., Iowa—Church and School—St. [illegible]face Roman Church having plans pre[illegible] and receives bids in spring remodeling [illegible] building addition to school and bui[illegible] new chuch. About $90,000. Slifer & A[illegible]hamson, 591 Endicott Bldg., St. Paul, M[illegible] archts.

Ia., Walcott—School—Bd. Educ. ha[illegible] plans prepared by W. L. Pedicord, ar[illegible] Iowa Falls, for 2 story, rein.-con., b[illegible] and tile. About $75,000. H. Schre[illegible] secy.

Ia., Waterloo—School—Bd. Educ. hav[illegible] plans prepared by M. B. Cleveland, arch[illegible] 601-5 First Natl. Bank Bldg., for 2 story [illegible] brick, rein.-con. and tile. About $115,00[illegible] W. H. Brunn, 207 East 5th St., secy. Noted Oct. 7.

Minn., Albert Lea — Church — First Lutheran Congregation, c/o M. Anderson, pres. Bldg. Com., having plans prepared by Slifer & Abrahamson, archts., 595 Endicott Bldg., St. Paul, for 100 x 116 ft. rein.-con. and brick. About $100,000. Noted Aug. 26.

Minn., Minneapolis—Music—State Bd. Control, c/o D. F. Mullen, secy., Capitol St. Paul, rejected bids Oct. 28, for building 3 story, 95 x 160 ft. rein-con., brick and stone, on State University campus, here. Noted Oct. 21.

Minn., Minneapolis—Office, etc.—D. Haas, 722 6th Ave. N., having plans prepared by P. Crosier, archt., 3725 Dupont Ave. S., for 2 or 3 story, 65 x 65 ft. rein.-con. and brick office and warehouse on 7th Ave. and 7th St. N. About $75,000.

Minn., Pipestone—Hospital—City, c/o S. W. Funk, clk., plans to build hospital. About $75,000. Architect not selected.

Minn., Virginia — Schools — Bd. Educ. plans to build two 2 story, 150 x 250 ft. rein.-con. and brick. About $300,000 each. R. G. McGhee, chn. Architect not selected.

Kan., Beverly—High School—Bd. Educ. having plans prepared by Mann & Gerow, archt., 722 Rorabaugh Wiley Bldg., Hutchinson, for 2 story, 82 x 121 ft., brick and rein.-con. About $90,000.

Kan., McPherson—Church—Church of The Brethren having plans prepared by Shepard & Wiser, archts., 302 R. A. Long Bldg., Kansas City, Mo., for a 1 story, steel and brick, rein.-con. flooring. About $100,000.

Neb., Schuyler—Courthouse—Comrs. Colfax Co. will let contract in January, building 4 story, 70 x 90 ft., brick, stone and cement. About $166,000. J. L. Woods, clk.

Neb., Thedford — Courthouse — Comrs. Thomas Co. having plans prepared by C. J. Bowell, archt., Grand Island, for 2 story, 60 x 80 ft., rein.-con., brick and Bedford stone. About $125,000. C. W. Bivens, aud.

N. D., Fargo—Y. M. C. A. plans to build rein.-con., brick and stone, on I St. About $275,000.

Mo., Clayton—School—Chaminade College plans to build brick and concrete, on Berry Rd. About $200,000. V. J. Klutho, Syndicate Trust Bldg., St. Louis, archt.

Tex., Dallas—Church—Oak Cliff 1st Baptist Church, 9th and Ewing Sts., had plans prepared by W. H. Reeves, archt., 900 East 9th St., for 1 story, concrete and brick, concrete and brick foundation. About $75,000. B. O. Howell, pastor.

Tex., Dallas—Hospital—Baptist Memorial Sanitarium, Junius and College Sts., had plans prepared by C. D. Hill & Co., archts., Southwestern Life Bldg., for 5 story, 100 x 120 ft. hospital for women and children, also dispensary to care for 300 to 500 patients daily, rein.-con. and brick, rein.-con. flooring, concrete and brick foundations. About $800,000.

Tex., Dallas—Hospital—City and Dallas Co. having plans prepared by H. M. Greene, archt., North Texas Bldg., for hospital. About $450,000. City voted $225,000 bonds for project. County has been requested to vote like amount. F. W. Wozencraft, mayor.

Buildings (Continued)

Tex., Dallas—Hospital—Federal Jewish Charities, 1814 Ashland Ave, raising $1,000,000 funds to build hospital. A. L. Palmer, chn. Architect not selected.

Tex., Denison—Bank and Office—State Natl. Bank, 300 West Main St., plans to build 7 story, 100 x 110 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Main St. About $450,000. Architect not selected.

Ariz., Phoenix—City Hall—City election Nov. 27, to vote on $150,000 bonds to improve and build addition to city hall.

Ariz., Phoenix—Fire Stations—City election Nov. 27, to vote on $65,000 bonds to build and equip fire stations.

Wash., Seattle—Church—Westminster Presbyterian Church, Bway, and East Columbia St., plans to build 1 story, 120 x 145 ft. brick, on Harvard and Howell Sts. About $128,000. R. H. Orr, 1301 Van Nuys Bldg., Los Angeles, archts. Noted Feb. 19.

Col., Denver — Schools — Denver School Dist. voted $2,000,000 bonds to build and improve various school buildings. Noted Sept. 16.

Col., Monte Vista—Schools—City voted $100,000 bonds to build schools.

Cal., Los Angeles—Gymnasium—Bd. Educ. having plans prepared by H. C. Howard, archt., for gymnasium at Lincoln High School. About $100,000.

Cal., National City—High School—National City, Chula Vista, Bonita, Otay, Oneonta, Monument and Highland voted $172,000 bonds to build union high school. T. C. Kistner, Central Mortgage Bldg., San Diego, designing archt.

Que., Montreal—College—Governors of MacGill University, Sherbrooke St. W., plan to build extensions to following buildings: arts, cost $300,000, mining and electrical $500,000, pathological $460,000, biological $325,000, library $200,000, physics $250,000 and commerce $250,000.

B. C., Victoria — Theatre — United Theatres Ltd., 719 Seymour St., Vancouver, plan to build rein.-con. and steel, here. About $300,000. C. H. Crane, Dime Bank Bldg., Detroit, Mich., archt.

S. A., Peru, Lima—Office—All Amer. Cables, 89 Broad St., New York City, had plans prepared by Lockwood Green Co., archts., 101 Park Ave., New York City, for 2 story, 75 x 175 ft. brick and stone, concrete foundation. About $150,000.

BIDS DESIRED

R. I., Newport—School—T. S. L. Weaver, archt., 14 Cranston Ave., receiving bids building 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Bway. and Vernon St., for School Comn. About $160,000. Noted Sept. 16.

Conn., Goodyear (Killingly P. O.)—School—Killingly Twp. School Comn. receiving bids building 2 story, 90 x 150 ft. Cost to exceed $100,000. H. L. Reinhold, 1513 Walnut St., Phila., archt. Noted Sept. 23.

Conn., Middletown—Hospital—Buck & Sheldon Inc., archts., 60 Pospect St., Hartford, receiving bids building 3 story, 40 x 108 ft., concrete, brick and steel addition, rein.-con. flooring, concrete foundation, for Middlesex Hospital, 28 Crescent St. About $250,000. Noted June 17.

N. J., Atlantic City—Fire House—Until Dec. 6, by city, building 3 story, brick and stone, brick foundation. About $250,000. Noted Nov. 4.

O., Piqua—School—Until Dec. 1, by Bd. Educ., R. F. D. 2, building 2 story, 10 room, 87 x 92 ft. brick, in Springfield Twp., near here. About $100,000. J. G. Saunders, clk. Hall & Lethley, 807 Fairbanks Bldg., Springfield, archts.

Mich., Birmingham—School—Until Nov. 15, by Baxter, O'Dell & Halpin, archts., 1024 Hammond Bldg., Detroit, constructing 2 story, 128 x 165 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation, on Adams St. and Oakland Ave., here, for Bd. Educ.

Mich., Detroit—Engine House—Until Nov. 15, by Fire Comn., c/o Spier & Gehrke, archts., 310 Park Bldg., constructing 2 story, 60 x 63 ft., rein.-con. brick and steel, rein.-con. flooring, concrete foundation, on Seven Mile Rd. and John R. St. About $75,000.

Mich., River Rouge—High School—Until Nov. 15, by Bd. Educ. and Van Leyen, Schilling, Keough & Reynolds, archts., 556 Cass Ave., Detroit, building 3 story, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Dearborn Rd., here. About $750,000. Noted March 4.

Ill., Chicago—Office—A. S. Alshuler, archt., 28 East Jackson Ave., receiving bids building 7 story, 80 x 140 ft., mill construction, concrete foundation, on Morgan and Van Buren Sts., for C. E. Spry, c/o architect.

Ill., Chicago — Office — Graiver & Dinkelberg, archts., 80 East Jackson Blvd., receiving bids building 18 story, 80 x 100 ft., concrete, brick and steel, concrete foundation, at 14-20 Adonis St. here, for J. Strok, Detroit, Mich. About $1,200,000.

Ill., Chicago—Synagogue—Levy & Klein, archts., 111 West Washington St., receiving bids building 1 story, 126 x 165 ft., mill construction, concrete foundation, on Washington Blvd. and Karlov Ave., for B'nai Abraham Zion Congregation, c/o architects. About $250,000.

Ill., Chicago—Temple—Hyde & Brown, archts., 8 South Dearborn St., receiving bids building superstructure for 4 story, 125 x 200 ft., rein.-con. and stone, concrete foundation, at 6107 Cottage Grove Ave., for Masonic League. About $750,000. Noted July 15.

Ill., Milledgeville—School—Ashby, Ashby & Schulze, archts., 178 West Jackson St., Chicago, receiving bids building superstructure of 2 story, 80 x 134 ft., rein.-con. and brick, rein.-con. flooring, for Bd. Educ. About $140,00.

Wis., Webster—High School—Until Jan. 2, by Bd. Educ., building 2 story, 160 x 175 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $175,000. E. J. Hancock, Lyric Bldg., Eau Claire, archt. and engr. Noted Sept. 30.

Ia., Pocahontas—Court House—Until Nov. 23 (change of date), by C. Gilchrist, aud. Pocahontas Co., building 2 story, 80 x 125 ft., brick, rein.-con. and stone. About $400,000. Proudfoot, Bird & Rawson, 810 Hubbell Bldg., Des Moines, archts. Noted Oct. 28.

Minn., Long Prairie—Until Nov. 16 (change of date), by Bd. Educ., c/o W. M. Barber, secy., building 2 story, 75 x 160 ft. rein.-con., brick and stone. About $200,000. C. H. Parsons, 600 Builders Exch., Minneapolis, archt. Noted Nov. 4.

Minn., Aitkin—High School—Until Jan. 2, by A. Jareb, clk. Bd. Educ., building 2 story, 102 x 125 ft., brick, concrete and steel, rein.-con. foundation and flooring. About $175,000. H. S. Swanson, Crosby, archt. and engr.

Col., Johnstown—High School—Until Dec. 1, by Bd. Educ., building 2 story, 130 x 150 ft., concrete and steel, rein.-con. flooring, concrete foundation. About $150,000. Montjoy, French & Frewen, Chamber of Commerce Bldg., Denver, archts. Noted Oct. 28.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Auburn**—Y. M. C. A., 2 West 45th St., New York City, let contract constructing brick and stone building, to F. A. Rumery Inc., 21 Portland St., Portland. About $250,000. Noted Aug. 19.

★**Mass., Brookline** (Boston P. O.)—Hotel—C. A. Newhall, 18 Tremont St., Boston, will build 8 story, conrete, brick and steel, rein.-con. flooring, concrete foundation, on Beacon and St. Paul Sts. About $1,500,000. Work will be done by day labor.

Mass., Springfield—High School—Bd. Educ. received bid Nov. 3, building 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on State St., from A. E. Stephens & Co., 318 Main St., $914,000. Noted Oct. 14.

★**R. I., Providence**—School—City let contract building 3 story, concrete, brick and steel, concrete foundation, on Jastram St., to Interstate Constr. Co., 29 Weybosset St. About $82,700. Noted Oct. 28.

★**N. Y., Brooklyn**—Bank and Office—State Bank, 363 Stone Ave., let contract building 4 story, 50 x 100 ft., brick, steel and stone, concrete foundation, on Pitkin and Stone Aves., to J. Schaefler, 5 West 31st St., New York City. Noted April 29.

★**N. Y., New York**—Bank—Liberty Natl. Bank, 120 Bway., let contract altering brick and stone, at 100 Bway., to Thompson-Starrett Co., 49 Wall St., New York City. About $400,000.

★**N. Y., New York**—Exchange—New York Curb Market Assn., Wall St., let contract building brick, steel and stone, brick foundation, on Trinity Pl., to Thompson-Starrett Co., 49 Wall St. About $750,000. Noted Jan. 8.

★**N. Y., New York**—Hospital—Broad St. Hospital, Broad St., will build 11 story, brick, steel and stone addition, concrete foundation, on Broad and South Sts. About $500,000. Work will be done by day labor under supervision of W. N. Smith, archt., and engr., 101 Park Ave.

★**N. Y., New York**—Loft—A. W. Tams, c/o J. F. Nitchie, archt., 63 Park Row, let contract building 6 story, 50 x 100 ft., brick, steel and stone, concrete foundation, at 318 West 46th St., to Maxis Eng. & Constr. Co., 26 Court St., Brooklyn. About $150,000.

★**N. Y., Tarrytown**—Mausoleum—J. D. Rockefeller, 266 Bway., New York City, let contrat building stone, concrete foundation, at Sleepy Hollow, to Presby Coykendal Co., 11 East 47th St., New York City. About $250,000.

★**N. J., Newark**—Post Office—Gross & Gross, 128 Market St., will build 1 story, 55 x 87 ft., terra cotta, on Roseville and 7th Aves. About $75,000. Work will be done by day labor. Above building to be leased to Post Office Dept.

★**Pa., Hollidaysburg**—Clubhouse—Blairmont Country Club let contract building 2 story, 40 x 175 ft., brick, at Sylvan Hills, north of here, including laying out golf course and excavating, to A. L. Anderson & Bros., Inc., Altoona Trust Bldg., Altoona. About $100,000.

★**Pa., Sewickley**—Mausoleum—H. R. Rea, Sewickley Heights, let contract building stone, concrete foundation, on Sewickley Heights, to G. A. Shedden Co., 62 West 45th St., New York City. About $150,000.

★**Md., Baltimore**—School—City let contract building P. S. 76, 3 story, 76 x 271 ft., with 50 x 241 ft. ell, brick and terra cotta, on Fort Ave. and Latrobe Park, to Standard Constr. Co., 1713 Sansom St., Phila. About $495,000. Noted Nov. 4.

★**Tenn., Sevierville**—Dormitory—Murphy College let contract building 2 story, 60 x 100 ft. concrete and brick, to McMahon & McMahon, Sevierville. About $100,000. Noted May 30.

★**O., Elyria**—School—Bd. Educ. let contract building 2 story, 98 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Gulf Rd and Ohio St., to Drummond-Miller Co., 4500 Euclid Ave., Cleveland. About $300,000. Noted Nov. 4.

★**Mich., Detroit**—Bank—Bank of Detroit, Fort St., let contract building 3 story, 50 x 140 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Fort St., to Hazleton & Clark, Book Bldg. About $300,000. Noted Aug. 12.

★**Mich., Detroit**—Hotel—S. Plotkin, c/o M. H. Finkel, archt., 333 Majestic Bldg., will construct 4 story, 100 x 100 ft., brick and steel, brick foundation, on Montcalm St. About $125,000. Work will be done by day labor. Noted Aug. 12.

★**Mich., Detroit**—Mercantile—Crowley, Milner Co., Farmer St., let contract building 2 additional stories, 95 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, to Bryant & Detwiler, Dime Bank Bldg. About $200,000. Noted Aug. 19.

★**Mich., Detroit**—Schools—Bd. Educ., 50 Bway., let contract building addition to school on Abbott St., to A. W. Hutche, Ford Bldg., $217,213; addition to Marxhausen School, on Warren Ave., to F. N. Cooper, Penobscot Bldg., $190,000; addition to Majeska School on Trombley and St. Aubin Aves., to Brayton Eng. Co., 907 Kresge Bldg., $195,733. Noted Oct. 28.

★**Ill., Chicago**—Bank—West Town State Bank, 2354 West Madison St., let contract building 3 story, 25 x 125 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, at 2352 West Madison St., to J. W. Kinnare, c/o G. H. Grussing, archt., 154 West Randolph St. About $85,000.

★**Ill., Chicago**—Sales, etc.—J. F. Marz, 5131 Bway., let contract constructing 1

Buildings (Continued)

story, 50 x 150 ft., rein.-con. and brick auto sales and service station, concrete foundation, to B. & W. Constr. Co., 10 South La Salle St. About $100,000.

★**Ill., Granite City**—High School—N. B. Ittner, archt., Bd. Educ. Bldg., St Louis, Mo., let contract to R. B. Higgins B & C Co., 1143 Childress Ave., St. Louis, Mo., building 2 story, 125 x 234 ft., concrete and brick, concrete foundation, on Alton Highway, for School Bd. About $222,000. Noted Sept. 2.

★**Ill., Jacksonville**—Lodge—B. P. O. E. let contract building 2 story, 63 x 105 ft., brick, to J. De Goveia, Jacksonville.

★**Wis., Manitowoc**—Office—Plumb & Nelson Co., 719 Chicago St., let contract building 2 story, 50 x 100 ft., brick, rein.-con., and steel, brick foundation, on Buffalo St., to T. J. Sporer, 8th St. About $75,000.

★**Wis., Two Rivers**—Armory, etc.—Cavalry Troop, c/o N. Nash, let contract constructing 2 story, 41 x 100 ft., brick, rein.-con. and stucco armory and community building, brick foundation, on North 8th St., to H. V. Hortting, Inc., Dempsey Bldg., Manitowoc. About $75,000.

★**Wis., Wonewoc**—Depot—Chicago & Northwestern Ry., 226 North Jackson Blvd., Chicago, let contract building 3 story, 60 x 98 ft., brick, rein.-con. and steel, concrete foundation, on Main St., here, to E. R. Herman & Son 1412 Hamilton St., Manitowoc. About $75,000.

★**Ia., Ft. Dodge**—High School—Bd. Educ. let contract building 3 story, 190 x 260 ft., brick, rein.-con., tile and stone, to Madsen & Peterson, 646 Builders Exch., Minneapolis, Minn., $645,300. Noted Oct. 7.

★**Ia., Mason City**—Hotel—G. Worden, c/o Chamberlain Hotel, 7th and Locust Sts., Des Moines, let general contract remodeling hotel, here, to J. Maine & Sons, 119 8th St., W., Des Moines; heating and plumbing, to Ft. Dodge Plumbing & Heating Co., Ft. Dodge. Total cost, $200,000.

★**Ia., Thurman**—School—Bd. Educ. let contract building school, to J. S. Gebuhr, 133 Pearl St., Council Bluffs. About $75,000.

★**Minn., Albert Lea**—Store, etc.—Skinner-Chamberlain Co., 225 South Bway., will build 3 story, 25 x 140 ft., rein.-con. and brick addition. About $75,000. Work will be done by day labor.

★**Minn., St. Paul**—Theatre and Store—A. Engler, 2511 University Ave., let contract building 2 story, 80 x 125 ft. brick and tile, on Rice St. near Manitoba St., to A. H. Heimbach & Co. Inc., 1611 University Ave. About $75,000.

★**S. D., Elk Point**—Church—Roman Catholic Church let general contract building 46 x 143 ft., rein.-con. and stone, to Keefe Constr. Co., 406 United Bank Bldg., Sioux City, Ia. About $68,000.

★**Col., Denver**—High School—City let general contract building 2 story, 125 x 350 ft. rein.-con., brick, steel and terra cotta, concrete foundation, on South Washington, South Pearl, Beard and Cedar Aves., to Simpson & Sullivan, Inter State Trust Bldg. About $400,000.

★**Wash., Seattle**—Exchange—Pacific Telephone & Telegaph Co., 333 Grant St., San Francisco, let contract (exclusive of steel work, plumbing and heating) for 10 story, 111 x 120 ft., brick and terra cotta, on 3rd Ave. and Seneca St., here, to Sound Constr. & Eng. Co., Lowman Bldg. About $1,000,000.

Federal Government Work

PROPOSED WORK

Me., Bar Harbor—Radio Building—Spec. 4333—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

R. I., Prices Neck—Radio Barracks—Spec. 4331—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build, here.

N. Y., L. I., Amagansett—Steel Radio Towers—Spec. 4335—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build two steel radio towers, here.

Va., Quantico—Building and Improvements—Spec. 4334—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to improve and construct buildings here (large contract).

Wash., Keyport—Driving and Casing Two Wells—Spec. 4330—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans, here.

Wash., Puget Sound—Magazine Building, etc.—Spec. 4332—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct magazine building and railroad track, here (large contract).

BIDS DESIRED

Mass., Boston—Incinerator Plant—Until Nov. 17, by L. M. Bullock, constr. quartermaster, Coast Defenses, Room 102, Army Supply Base, furnishing labor and material building incinerator plant, at Ft. Warren, Boston Harbor.

Md., Aberdeen—Steel Hangar, etc.—Until Nov. 18, at office of Constructing Quartermaster, Proving Ground, building steel hangar for airship, boiler house, generator house, etc.; advertised in this issue. Noted Sept. 16.

Md., Annapolis—Repainting Structure—Spec. 4329—Until Nov. 24, by Bureau Yards & Docks, Navy Dept., Wash., D. C., repainting quarters for officers in charge, chief petty officers, operators, etc., also garage locker, power house, water tank, flag pole, etc., at Naval High Power Radio Sta., Greenbury Point, here; $10 deposit required for plans and spec. Noted Nov. 4.

Va., Quantico—Incinerator—Spec. 4266—Until Nov. 24, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing, here; $10 deposit required for plans and spec. Noted Aug. 19.

S. C., Charleston—Improving Boiler Plant—Spec. 4252—Until Nov. 24, by Bureau Yards & Docks, Navy Dept., Wash., D. C., improving, here. $10 deposit required for plans and spec. Noted July 29.

Fla., Pensacola—Removing Mast—Spec. 4314—Until Nov. 24, by Bureau Yards & Docks, Navy Dept., Wash., D. C., removing, here; $10 deposit required for plans and spec. Noted Oct. 28.

O., Cincinnati—Altering Attendants Quarters, etc.—Until Nov. 17, at office of J. A. Wetmore, superv. archt., Treas. Dept., Wash., D. C., altering and repairing attendants quarters and building new composition floors and base, at U. S. Marine Hospital, here.

Ill., Springfield—Lighting, Wiring, etc.—Until Nov. 24, at office of J. A. Wetmore, supervy. archt., Treas. Dept., Wash., D. C., for lighting, conduits and wiring changes in Post Office and Court House, here.

Cal., San Diego—Refrigerating Equipment—Spec. 4303—Until Dec. 1, by Bureau Yards & Docks, Navy Dept., Wash., D. C., furnishing, here; $10 deposit required for plans and spec. Noted Oct. 14.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Chelsea**—Macadam Roads, etc.—Spec. 4284—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to M. Seretto, 3 Tremont Row, Bosquired for plans and spec. Noted Nov. 4.

★**R. I., Newport**—Piers and Dredging—Spec. 4090—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building new pier and extending 2 piers, at Goat Island, here, to Booth & Chase, Inc., 29 Bedford St., Fall River, Mass., $71,967 (210 days).

★**R. I., Providence**—Dredging—U. S. Engineer let contract dredging in Stanford and Norwalk Harbors, here, to J. S. Packard Dredging Co., 1004 Turks Head Bldg., $107,000. Noted Nov. 4.

R. I., Providence—Remodeling Custom House and Post Office—Treas. Dept., Wash., D. C., received bids Oct. 27, remodeling, here, from M. Serreto, 3 Tremont Row, Boston, Mass., $87,500; R. M. Kearns, 692 Washington St., New York City, $119,555; King Lumber Co., Charlottesville, Va., $119,800. Noted Oct. 7.

★**N. Y., Buffalo**—Registry Room—Treas. Dept., Wash., D. C., let contract enlarging registry room in Post Office, here, to White Mantle & Tile Co., Buffalo, $6,900. Noted Oct. 14.

★**N. J., Sandy Hook** (Ft. Hancock P. O.)—Barrack Buildings—Spec. 4275—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to estate of J. Bauer, 388 Wallabout St., Brooklyn, N. Y., (1) $8,148, and unit price under (3) also accepted.

★**D. C., Wash.**—Foundation and Coping for Reflecting Pool—Col. Ridley, Pub. Bldgs. & Ground, let contract building foundation and substructure of coping for reflecting pool, in West Potomac Park, to C. H. Tompkins, 1812 Park Rd., $[illegible]. Noted Oct. 28.

★**D. C., Wash.**—Switchboard Feeder Panels—U. S. Engineer let contract furnishing 2 switchboard feeder panels, to Carl Mace Eng. Co., 18 Tremont St., Boston, Mass., $723.

Va., Norfolk—Quay Wall—Spec. [illegible] Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Oct. 27, building Navy Yard, here, (1) work complete, [illegible] Raymond Concrete Pile Co., 921 Munsey Bldg., Baltimore, Md., (1) $327,321 (300 days), (2) $325 and $275, (3) add $4[illegible] deduct $20, (4) add $1, deduct $0.20, (5) [illegible] $100, deduct $50, (6) add $1.75, [illegible] $0.35; H. P. Converse & Co., 31st St. [illegible] Colonial Ave., (1) $321,500 (300 days) [illegible] $415 and $415, (3) add $36, deduct $8, [illegible] add $0.75, deduct $0.05, (5) add $75, [illegible] $25, (6) add $1.26, deduct $0.16, Mel[illegible] Contg Co., 1415 Fidelity Bldg., Baltimore, Md., (1) $341,000 (360 days), (2) $470, [illegible] add $50, deduct $10, (4) add $0.80, deduct $0.10, (5) add $80, deduct $35, (6) add $0.80, deduct $0.40. Noted Oct. 14.

★**W. Va., Wheeling**—Conduit and Wiring Changes—Treas. Dept., Wash., D. C., let contract installing conduit and making changes in wiring in Post Office, to D. C. Barnes, Eureka Springs, Ark., $2,937.

★**W. Va., Wheeling**—Water Piping—Treas. Dept., Wash., D. C., let contract installing new water pipe in Post Office, here, to W. Wilby, Selma, Ala., $4,535 (90 days). Noted Oct. 28.

★**Mich., Lansing**—Post Office—Treas. Dept., Wash., D. C., let contract remodeling Post Office, here, to Garber & Cissell, 12 West 4th St., Bethlehem, Pa., $10,000. Noted Oct. 7.

★**Ill., Rockford**—Mailing Vestibule, etc.—Treas. Dept., Wash., D. C., let contact for extension to mailing vestibule, driveway and interior changes, here, to Theraulf Constr. Co., 534 East Johnson St., Phila., Pa., $12,319. Noted Oct. 7.

★**La., New Orleans**—Mine Storage Building—Spec. 4253—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to Hyde & Baxter, 1311 G St., N. W., Wash., D. C., $31,045 (180 days). Noted Nov. 4.

★**Minn., St. Cloud**—Electric Dumb Waiter—Treas. Dept., Wash., D. C., let contract installing complete electric dumb waiter and making changes in hoistway, to Kimball Bros. Co., 9th St. and 11th Ave., Council Bluffs, Ia., $3,200.

★**Col., Ft. Lyon**—Concrete Pavement, etc.—Spec. 4257—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building concrete pavement and installing pipe line, here, to Orman Constr. Co., Pueblo, $83,243 (120 days). Noted Oct. 28.

★**Wash., Port Angeles**—Radio Compass Building—Spec. 4304—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to C. Olsen, Port Angeles, $7,813 (65 days). Noted Oct. 14.

★**Wash., Puget Sound**—Automatic Sprinkler System—Spec. 4180—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in pattern shop, here, to Rockwood Sprinkler Co., 532 1st Ave., Seattle, $6,275 (45 days).

★**Cal., San Diego**—Fire Alarm System—Spec. 4288—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to Globe Electric Wks., 817 Timken Bldg., $18,900 (120 days). Noted Oct. 28.

★**Cal., San Diego**—Hospital Buildings—Spec. 4300—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to W. E. Kier Constr. Co., 502 Amer. Natl. Bank Bldg., $707,350 (450 days). Noted Nov. 4.

Cal., San Diego—Marine Railway—Spec. 4297—Naval Wks. Officer received bids Oct. 27, removing marine railway from Naval Depot at La Playa to fleet repair base at head of San Diego Bay, from Ross Constr. Co., Forum Bldg., Sacramento, $207,000 (355 days); San Francisco Bridge Co., Nevada Bank Bldg., San Francisco, $249,700, (300 days); Crandall Eng. Co., Boston, Mass., $257,300, (320 days). Noted Nov. 4.

H. T., Honolulu—Elevator Plant—Treas. Dept., Wash., D. C., received bids Oct. 27, installing at Post Office, Court House and Custom House, here, from Otis Elevator Co., 613 15th St., N. W., Wash., D. C., $29,670. Noted Oct. 7.

Miscellaneous

PROPOSED WORK

Bathhouse—Hartford, Conn.—City had plans prepared by E. T. Wiley, archt., 75 Pratt St., for rein.-con. bathhouse, on Ferry Blvd. About $50,000.

Tractors—Syracuse, N. Y.—City plans to sell $48,000 bonds Nov. 16, to purchase tractors for Dept. Pub. Wks.

Park—Akron, O.—City voted $2,000,000 bonds to build public park system.

Pumps—Akron, O.—Until Nov. 19, at office of E. A. Zeisloft, dir. Pub. Service, Delaware Bldg., furnishing motor-driven centrifugal pumps. G. G. Dixon, engr.; advertised in this issue.

Plumbing System—Cleveland, O.—City received bids installing plumbing system in 1 story, 180 x 420 ft. Convention Hall, (now under construction), on East 6th St. and St. Clair Ave., from Poplowski Plumbing Co., East 40th St., $169,720; W. G. Cornell Co., Leader-News Bldg., $172,430; Feldman Bros., 10311 Barrett Ave., $173,250. Noted Sept. 2 under "Buildings."

Stadium—O., Columbus—Ohio State University had plans prepared building steel and concrete stadium, to have 83 entrances and 63,000 seating capacity. The arena covers 150,000 sq.ft. of space, the north or closed end will have a movable stage for open air plays, theatricals, concerts and other similar events. The distance around outside of structure will be a little more than ¼ of a mile, height being 107 ft. Around outside will be 87 arches, each 13 ft. wide, 56 ft. high and one arch 72 ft. wide, 86 ft. high, making the main entrance. The building requires 40,000 cu.ft. concrete and 4,000 ton steel. About $1,000,000. Private plans.

Street Flusher and Cleaner—Beloit, Wis.—City plans to purchase street flusher and cleaner. G. E. Heebink, city engr.

Cement — Minneapolis, Minn. — City receives bids in December for 20,000 bbl. cement. About $80,000. K. E. Alexander, purch. agt.

Park Development—La Moure, N. D.—La Moure Co. Memorial Assn., c/o C. C. Temple, co. aud., having plans prepared by C. H. Ramsdell, engr., 46 Barton Ave., S. E., Minneapolis, Minn., for developing park as soldiers memorial. Work includes athletic field, swimming pool, memorial gates, Chatauqua auditorium, shelter houses, walks, drives, etc.

Dam—Cotter, Ark.—Dixie Power Co., Title Guaranty Bldg., St. Louis, Mo., having plans prepared by H. A. Allen, engr., 23 Metropolitan Blk., Chicago, for new hydro-electric dam over White River, here. Noted Aug. 12.

Transmission Line and Distribution System — Locust Grove, Okla. — City having surveys made by V. V. Long & Co., engrs., Colcord Bldg., Oklahoma City, for transmission line and distribution system. About $35,000.

Parks and Playgrounds—Phoenix, Ariz.—City election Nov. 27, to vote on $150,000 bonds to purchase and improve parks and playgrounds.

Dam, Conduit, etc.—San Diego, Cal.—San Diego Consolidated Gas & Electric Co., 935 6th St., applied to State Water Comn., Sacramento, for permission to divert waters of Pauma and Lion Creeks in San Diego Co., and build concrete dam and 2 mi. concrete conduit to develop 680 hp., cost $110,000, also divert waters of west fork of San Luis Rey River, build concrete dam and 3½ mi. concrete conduit to develop 775 hp., cost $235,000.

Telephone Lines and Equipment—Ontario—Bell Telephone Co., 33 Temperance St., Toronto, plans to build aerial cables, underground conduits, switchboards, central office equipment, etc., in Ailsa Craig, cost $2,000; Amherstburg, $8,300; Aylmer, $1,100; Ayton, $1,300; Blenheim, $21,000; Chatham, $47,200; Clinton, $3,300; Creiton, $1,800; Drayton, $2,700; Dresden, $4,000; Durham, $1,600; Essex, $6,200; Exeter, $8,900; Glencoe, $3,600; Goderick, $12,000; Petrolea, $3,700; Plattsville, $700; Ridgetown, $13,100; Sarnia, $29,100; Seaforth, $6,900; Stratford, $36,100; Strathroy, $13,600; St. Marys, $2,100; St. Thomas, $26,700; Teeswater, $1,200; Wallaceburg, $6,700; West Lorne, $2,100; Windsor, $291,700; Harriston, $6,600; Harrow, $5,600; Henshall, $3,400; Kingsville, $10,300; Leamington, $25,500; Listowel, $5,300; London, $56,200; Palmerston, $1,700; Milverton, $1,700; Mitchell, $3,100; Mt. Forest, $5,300; Nuestadt, $600; Oil Springs, $1,600. Total cost, $634,300.

BIDS DESIRED

Paving Blocks—Brooklyn, N. Y.—Until Nov. 16, by Bd. Purchase, Room 526, Municipal Bldg., New York City, furnishing and delivering sand, cement and granite paving blocks to Dept. of Parks, here.

Heating Work—Central Islip, N. Y.—Until Dec. 1, by State Hospital Comn., Capitol, Albany, for heating work and service connections in laundry building, State Hospital here. E. S. Elwood, secy.; advertised in this issue.

Enclosures—New York, N. Y.—Until Nov. 19, by Pub. Serv. Comn., 49 Lafayette St., building inspection shed enclosures at 180th St. Yard, Route 18.

Gasoline, Paving Grits, etc.—New York, N. Y.—Until Nov. 18, by H. H. Curran, pres. Manhattan Boro., furnishing and delivering 8,000 gal. gasoline (Contr. 1); 400 cu.yd. paving grits (Contr. 2); 100,000 gal. refined asphalt (Contr. 3); 2,400 cu.yd. binder stone (Contr. 4); 30,000 granite paving blocks (Contr. 5); 3,000 bags Portland cement (Contr. 6); five 2½ ton motor trucks (Contr. 7).

Stairway—Williamsbridge, N. Y. (New York P. O.)—Until Nov. 15, by Bronx Parkway Comn., 72 West Pondfield Rd., Bronxville, building granite stairway on south side of Gun Hill Rd. Bridge, over Bronx Blvd., here. J. Downer, secy. and engr.

Coal Handling Machinery—New Orleans, La.—Until Nov. 16, by Bd. Port Comrs., furnishing conveying machinery for handling coal, including shafting, gearing, pulleys, take-ups, bearings, etc.; advertised in this issue.

Coal Conveyor Belt—New Orleans, La.—Until Nov. 16, by Bd. Port Comrs., for 380 ft. of 36 in. coal conveyor belt; advertised in this issue.

Dock Equipment—New Orleans, La.—Until Nov. 16, by Bd. Port Comrs., Suite 200, New Court Bldg., furnishing 1 conveyor belt, motor, belt conveyor, machinery, silent chain drive and sprockets, for Dock Shipping Conveyor 21, of additional equipment east dock gallery at public grain elevator, also dock shipping spouts, of additional equipment east dock gallery at public grain elevator. W. O. Hudson, pres.; advertised in this issue.

Wharf Shed—New Orleans, La.—Until Nov. 16, by Bd. Port Comrs., New Court House Bldg., constructing wharf shed at foot of 4th St. About $100,000. G. Coleman, ch. engr.

Docks—Detroit, Mich.—Until Nov. 22, by H. Brabyn, secy. Bd. Fire Comrs., Wayne and Larned Sts., furnishing labor and material for 335 ft. dock, 75 ft. wide, involving wood piles 4 ft. on centers each way, rein.-con. top and includes 40 ft. extension to railroad tracks and 2 rein.-con. sewer outlets, 100 ft. long, supported on piling. Smith, Hinchman & Grylls, 710 Washington Arcade, engrs.

Ties—Detroit, Mich.—Until Nov. 16, by G. J. Finn, comr., Municipal Court Bldg., furnishing f.o.b. Detroit, 8,000 twin steel ties for Street Ry. Comn., 410 City Hall. About $65,000. W. C. Markham, 410 City Hall, engr.

Portland Cement—Detroit, Mich.—Until Nov. 16, by Comn. of Purchases & Supplies, Municipal Court Bldg., furnishing f.o.b. Detroit, 50,000 bbl. Portland cement.

Crane, etc.—Vancouver, B. C.—Dept. Marine & Fisheries, Ottawa, receiving bids furnishing one 10 ton locomotive gib crane and one 50 ton yard locomotive and numerous hoists for new dock, here.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Wharf and Coal Trestle—Portland, Me.—Boston & Maine R.R., North Sta., Boston, let contract rebuilding wharf and coal trestle at plant, here, to J. W. Gulliver Co., 120 Exchange St. About $20,000.

Dumping Scows—New York, N. Y.—Street Cleaning Dept., Room 1244, Municipal Bldg., received bids Nov. 5, constructing 5 dumping scows from C. Hildebrand Dry Dock Co., $315,000 (Proposition A), $325,000 (Proposition B); U. S. Steamship Co., 50 Broad St., $337,915 (Proposition A); $362,915 (Proposition B); I. S. Bushing & Son, 764 Court St., Brooklyn, $365,000 (Proposition A), $407,500 (Proposition B). Noted Oct. 21.

Ferryboat—New York, N. Y.—G. A. Whalen, comr. Plant & Structures, Municipal Bldg., received bids Nov. 1, constructing steel screw ferryboat, from U. S. Steamship Co., 50 Broad St., $812,400; S. I. Steamship Corp., $822,000; Newburg Ship Yards, Inc., $875,100. Noted Oct. 21.

★Heating System—New York, N. Y.—Dept. Pub. Wks., Albany, let contract installing heating system in Barge Canal Terminal Headhouse on Pier 93, West 53rd St., here, (Terminal Contr. 225-H), to Austin Eng. Co., 121 West 42nd St., $4,875. Noted Nov. 4.

Station Finish—New York, N. Y.—Transit Comn. received bids Nov. 1, for miscellaneous construction and station finish, from E. Ballaban, $20,056; J. D. Roberts, $21,800; D. C. Serber, $24,000.

★Piers—Oswego, N. Y.—E. S. Walsh, supt. Pub. Wks., Albany, let contract building concrete foundation piers for proposed grain elevator on Barge Canal Terminal Pier, here (Terminal Contr. 80), to Brown & Lowe Co. and Law Bros., Foster Ave., Schenectady, $336,412. Noted Oct. 21.

★Foundation—Rochester, N. Y.—E. S. Walsh, supt. Pub. Wks., Albany let contract building foundation for proposed terminal freighthouse, here, Terminal Contr. 229, to New England Foundation Co., Inc., 70 Kilby St., Boston, $34,826. Noted Oct. 14.

★Terminal—Rouses Point, N. Y.—E. S. Walsh, supt. Pub. Wks., Albany, let contract completing terminal, here (Terminal Contr. 26-a), to Holler-LaDu Corp., Holland Bldg., Albany, $32,619. Noted Oct. 7.

★Underground Pipes — Wilkinsburg (Pittsburgh P. O.), Pa.—Boro. let contract furnishing labor and material for ditching, laying conduit pipes, etc., and completely building system of underground pipes or conduits, here and in Wilkins Twp., to Booth & Flinn, Ltd., 1942 Forbes St., Pittsburgh.

Bulkheads—New Orleans, La.—New Orleans Levee Bd. received bids building 316 and 200 ft. bulkheads for Algiers ferry landing, (1) inner and outer, (2) inner, from Blakemore Constr. Co. with G. A. Fuller & Co., Poland and Dauphine Sts., (a) Wakefield piling, (b) Martinez piling, (1a) $15,000, (1b) $15,000; (2a) $21,960, (2b) $21,960; Doullut & Williams, Hibernia Bank Bldg., (1a) $17,040, (1b) $17,625, (2a) $28,049, (2b) $29,993.

Wharf—New Orleans, La.—Bd. Port Comrs., Court House Bldg., received bids furnishing and erecting open wharf at foot of Clouset St. including complete roadway, drainage, footings, but exclusive of paving, from Dalgran Constr. Co., 611 Gravier St., $94,960; Alexander & Juliana, 636 Common St., $108,350; Hackett & Garsaud, Maison Blanche Bldg., $142,902.

★Foundation, etc.—Miamisburg, O.—Bd. Educ. let contract excavating and building foundation for 2 story, school, to Nolge & Norton, Chillicothe. About $15,000. Noted July 15, under "Buildings."

★Lock—Chicago, Ill.—Dept. Pub. Wks. & Bldgs., 25 East Jackson Blvd., let contract building Marseilles Lock, on Illinois River, to Green & Sons Co., 563 McCormick Bldg., $1,373,115. Noted Oct. 21.

★Pumping Engine—Janesville, Wis.—City let contract furnishing pumping engine, to Murray Iron Wks., 880 Washington St., Burlington, Ia., $46,538. Noted Sept. 9.

★Foundation—Milwaukee, Wis.—Bd. Industrial Educ., Manufacturers Home Bldg., let contract building rein.-con. foundation for 2nd unit of continuation school, 7 story, 145 x 268 ft., to G. E. Kahn, 114 Grand Ave., $123,500. Former bids rejected. Noted Oct. 28.

★Garbage Incinerators—Ft. Worth, Tex.—City let contract constructing 3 stoker incinerators in residential section and one 25 ton stoker incinerator in business section, (all housed in brick buildings), to Superior Insurance Co., Dallas, $56,200.

★Plumbing, Heating, etc.—Denver, Col.—City let plumbing contract for 2 story, 125 x 350 ft. school on South Washington, South Pearl, Beard and Cedar Aves., to Johnson-Davis Plumbing & Heating Co., Denver, $26,887; heating, to J. Pfeiffer, 1140 California St., $63,688; electric wiring, to Denver Electrical Co., 1642 Tremont St., $15,396. Noted Sept. 30.

★Wharf—Ottawa, Ont.—Dept. Pub. Wks. let contract building wharf at Thetis Island, B. C., to Vancouver Pile Driving & Contg. Co., 207 Hastings St., W., Vancouver. About $64,000.

OFFICIAL PROPOSALS

Bids: Nov. 22

Lock and Dam Construction

OF
THE ILLINOIS WATERWAY
CONTRACT NO. 2

Chicago, Ill.

1. Sealed proposals for the construction of Starved Rock Lock and Dam, located in the Illinois River, two miles above Utica, and seven miles below Ottawa, La Salle County, Illinois, will be received at the Office of the Director of the Department of Public Works and Buildings, Division of Waterways, Room 1404, 25 East Jackson Boulevard, Chicago, Illinois, until twelve (12) o'clock noon, Central Standard Time of the twenty-second (22) day of November, 1920, and then publicly opened and read.

2. Copies of the plans, specifications, proposal blank, form of bond, and contract may be obtained by prospective bidders at the Office of the Department, Room 1404, 25 East Jackson Boulevard, Chicago, Illinois, upon depositing a check for Ten Dollars ($10.00), made payable to the Director of the Department of Public Works and Buildings, which sum will be returned within ten (10) days after the contract has been awarded, if the plans are returned in good condition within that time.

3. Each proposal shall be accompanied by a certified check or draft drawn on some responsible bank doing business in the City of Chicago, and made payable to the order of the Director of the Department of Public Works and Buildings, for five (5) per cent of the amount of the proposal. In lieu of a certified check or draft, the proposal may be accompanied by a bond executed in the form prescribed by the Department of Public Works and Buildings and with a Surety Company approved by the Department in the penal sum of ten (10) per cent of the amount of the proposal.

4. The Department of Public Works and Buildings reserves the right to reject any or all bids. The contract, if let, will be awarded to the lowest responsible bidder.

FRANK I. BENNETT,
Director, Department of Public Works and Buildings.
WILLIAM L. SACKETT,
Superintendent of Waterways.
M. G. BARNES,
Chief Engineer,
Division of Waterways.
October 21, 1920.

Bids: Nov. 19.

Motor Driven Centrifugal Pumps

DEPARTMENT OF PUBLIC SERVICE
BUREAU OF WATER WORKS
IMPROVEMENT
CONTRACT NO. 204

Akron, Ohio

Sealed bids or proposals for furnishing motor-driven centrifugal pumps will be received at the office of the Director of Public Service, Delaware Building, Akron, Ohio, until 12 o'clock noon, Central Standard time, of Friday, the 19th day of November, 1920, and at that time and place will be publicly opened and read.

The contract includes the furnishing and delivery of two (2) horizontal centrifugal pumps, normal capacity, 2,000 gallons per minute against a total head of 120 ft., direct connected to electric motors.

All proposals must be made on the blank forms furnished by the city. Each proposal must be accompanied by a certified check in the amount of Two Hundred Dollars ($200.)

A satisfactory bond in the sum of fifty (50) per cent of the amount of the contract will be required of the successful bidder.

The specifications may be seen at the office of the director, or copies may be obtained from the Bureau of Water Works Improvement, 102 East Mill St., Akron, Ohio.

The right is reserved to reject any or all bids.

E. A. ZEISLOFT,
Director of Public Service.
H. H. FROST,
Superintendent of Water Works.
G. G. DIXON, Engineer.

Bids: Nov. 23.

Construction of Bridge Superstructure

Montpelier Vt.

Sealed proposals for furnishing and erecting the steel superstructure for the proposed Booth Bridge in Bridgewater, Vermont, will be received at the Office of the State Highway Commissioner, Montpelier, Vermont, until 2 p.m., November 23, 1920, and then publicly opened and read.

Bidders are asked to submit their own design and strain sheets and if requested, to furnish complete detail plans to be approved by the State Engineer and by the Secretary of Agriculture, or his authorized agents.

Specifications may be seen at the Office of the State Engineer, Montpelier, Vermont, or obtained on the receipt of $5.00, which money will be refunded on the return of the specifications or acceptance of the bid.

Bidders should satisfy themselves, before bidding, as to the character of the work and the obstacles to be encountered. Said bridge is to be 70 feet clear span and 21 feet clear roadway and located on the main road from Rutland to Woodstock about twenty miles from Rutland or ten miles from Woodstock.

certified check for $500.00, payable to the State Highway Commissioner, must accompany each bid.

The right is reserved to repect any and all bids.

S. B. BATES,
State Highway Commissioner.

Bids: Nov. 16.

Canal Improvements

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT
OF PUBLIC WORKS

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until 12 o'clock noon of Tuesday, Nov. 16, 1920, at which place and hour they will be publicly opened and read, for improving the New York State canals, pursuant to the provisions of Chapter 147 of the Laws of 1903, and of the acts amendatory thereof and supplementary thereto, and Chapter 570 of the Laws of 1915, as follows:

—1—
CONTRACT NO. 186
Erie Canal—Section 6

For constructing head gates at the north end of the dam at Baldwinsville.

Sheets 1 to 3 inclusive.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank (or trust company in the case of terminal contract) in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in proposal.

Upon execution of the contract and approval of bonds the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than those to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the property performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.
October 16, 1920.

Bids: Nov. 16.

Furnishing Motor

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200 New Orleans Court Building, until 8 p.m., Tuesday, November 16th, 1920, and then publicly opened, for the furnishing of one motor for Dock Shipping Conveyor No. 21 of Additional Equipment East Dock Gallery at Public Grain Elevator.

A deposit of $300.00 in cash or certified check is required with proposal.

Bond of 50% of bid is required with notarial contract.

Payment: 85% of the bid for material wil lbe paid upon delivery and acceptance of same on the site. The balance will be paid 20 days after the motor and other material has been placed in operation and has been satisfactory to the Chief Engineer of the Board.

Plans and specifications are on file in the office of the Acting Chief Engineer, H. M. Gallagher, No. 1 Canal Street, by whom full sets will be furnished to prospective bidders on deposit of $10.00, which will be refunded to depositors who submit proposals or return sets in good condition.

The right is reserved to reject any or all bids and to waive informalities.

W. O. HUDSON,
President.

Bids: Nov. 22.

Johnson Street Bridge

CONTRACT NO. 1

Victoria, B. C.

Sealed tenders, addressed to the City Clerk, either on a lump sum or schedule basis, for the construction of the greater part of the substructure, will be received up to noon on November 22d, 1920. Plans and specifications may be obtained from the City Engineer on and after October 29th, 1920, by depositing the sum of ten dollars ($10), which will be returned upon receipt of a bona fide tender.

The lowest or any tender will not necessarily be accepted.

J. L. RAYMUR,
Purchasing Agent.
City Hall, Victoria B. C.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 22	Detroit, Mich.	Nov. 11
Nov. 27	Denver, Col. Adv. Nov. 11 and 18.	Nov. 11
Nov. 30	Alma, Mich. Adv. Nov. 18.	Nov. 18
Dec. 7	Saginaw, Mich.	Nov. 18
Dec. 15	Poughkeepsie, N. Y. Adv. Nov. 18.	Nov. 18

SEWERS

Nov. 26	Covington, Ky.	Nov. 18
Nov. 26	Detroit, Mich.	Nov. 18
Dec 1	Thiells, N. Y. Adv. Nov. 18.	Nov. 18
Dec. 6	Little Falls, Minn.	Nov 18
Dec. 8	Ossining, N. Y. Adv. Nov. 18	Nov. 18

BRIDGES

Nov. 22	Alamo, Ga.	Nov. 4
Nov. 22	Victoria, B. C.	Nov. 4
Nov. 22	North Carolina	Nov 11
Nov. 23	Bridgewater, Vt.	Nov. 11
Nov. 29	Columbus, Kan.	Nov. 18
Dec. 1	Columbus, Kan.	Nov. 18
Dec. 3	Topeka, Kans.	Nov. 18
Dec. 7	Grand Rapids, Minn.	Nov. 18
Dec. 10	White Springs, Fla.	Nov. 18
Jan. 8	Miami, Fla.	Nov. 18
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Nov. 20	South Carolina	Nov. 18
Nov. 22	Indiana	Nov. 11
Nov. 22	Columbiana, Ala.	Nov. 11
Nov. 22	North Carolina	Nov. 11
Nov. 22	Michigan	Nov. 18
Nov. 22	Linden, Tex.	Nov. 18
Nov. 23	Leavenworth, Kan.	Nov. 4
Nov. 23	Dangerfield, Tex.	Nov. 18
Nov. 23	Wisconsin	Nov 18
Nov. 24	Missouri	Nov. 11
Nov. 24	New York, N. Y.	Nov. 18
Nov. 27	Missouri	Nov. 4
Nov. 27	Indiana	Dec. 18
Nov. 29	Topeka, Kan.	Nov. 4
Nov. 30	Georgia	Nov. 11
Dec. 1	Columbus, Kan. Adv. Nov. 11 and 18.	Nov. 11
Dec. 1	New Jersey Adv Nov. 18.	Nov. 18
Dec. 1	Rhode Island Adv. Nov. 18.	Nov. 18
Dec. 2	Ft. Myers, Fla.	Nov. 18
Dec. 7	Grand Rapids, Minn.	Nov. 18
Dec. 8	Belvidere, N. J. Adv Nov. 18.	Nov. 18
Dec. 10	Florida Adv. Nov. 18.	Nov. 18
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 10	Stockton, Kan.	Nov. 18
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Nov. 22	Tampa, Fla.	Nov. 11
Nov. 23	Granite Falls, Minn.	Nov. 18
Nov. 24	Willows, Cal.	Nov. 18

RAILWAYS

Bids Close		See Eng. News-Record
Nov. 30	Quebec	Nov. 11

INDUSTRIAL WORKS

Nov. 30	Marshfield, Wis.	Nov. 18
Dec 1	Metuchen, N. J.	Oct 28

BUILDINGS

Nov. 22	Buffalo, N. Y.	Oct. 28
Nov. 22	New Bedford, Mass.	Nov. 18
Nov. 23	Pocahontas, Ia.	Nov. 11
Nov. 23	Eldorado, Kan.	Nov. 18
Nov. 23	Wash., D. C.	Nov. 18
Nov. 24	Cleveland Heights (Warrensville P. O.), O.	Nov. 4
Dec. 1	Johnstown, Col.	Nov. 11
Dec. 1	Piqua, O.	Nov. 11
Dec. 1	Glasco, Kans.	Nov. 18
Dec. 1	New York, N. Y.	Nov. 18
Dec. 3	Topeka, Kans.	Nov. 18
Dec. 3	Michell, S. D.	Nov. 18
Dec. 4	Key West, Fla.	Nov. 18
Dec. 6	Ossining, N. Y.	Oct. 21
Dec. 6	Atlantic City, N. J.	Nov. 11
Dec. 10	Brooklyn, N. Y.	Oct. 21
Dec. 15	Frederic, Wis.	Nov. 18
Dec. 15	Clear Lake, Wis.	Nov. 18
Jan. 1	Chicago, Ill.	Nov. 18
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Oct 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis.	Nov. 11

FEDERAL GOVERNMENT WORK

Nov. 24	Quartermasters Storehouses Spec. 4280—San Diego, Cal.	Nov. 4
Nov. 24	Redredging — Galveston, Tex. Adv. Oct. 21 to Nov. 18.	Nov. 4
Nov. 24	Incinerator—Quantico, Va.	Nov. 11
Nov. 24	Lighting Conduits, etc. — Springfield, Ill.	Nov. 11
Nov. 24	Boiler Plant Improvements —Spec. 4252—Charleston, S. C.	Nov. 11
Nov. 24	Removing Mast—Spec. 4314 —Pensacola, Fla.	Nov. 11
Nov. 30	Mezzanine Floor — Ft. Wayne, Ind.	Nov. 18
Nov. 30	Elevator—Lansing, Mich.	Nov. 18
Dec. 1	Refrigerating Equipment — Spec. 4303—San Diego, Cal	Nov. 11
Dec. 1	Ordnance Buildings—Spec. 4168—Kuahua, H. T.	Nov. 4
Dec. 1	Freight Elevator—Rockford, Ill.	Nov. 18
Dec. 2	Mezzanine Floor — Chicago, Ill.	Nov. 18
Dec 6	Mailing Vestibule, etc. — Spartansburg, S. C.	Nov. 18
Dec. 9	Surface Drainage System —Galveston, Tex.	Nov. 18
Dec. 20	Steel Dump Scows—Louisville, Ky.	Nov. 18

MISCELLANEOUS

Nov. 22	Docks—Detroit, Mich.	Nov. 11
Nov. 22	Lock and Dam—Chicago, Ill.	Oct. 21
Nov. 22	Pipe and Specials — East Orange, N. J.	Nov. 18
Nov. 23	Heating, etc. —Ossining, N. Y.	Oct. 28
Nov 23	Dumping Scow—New York, N. Y.	Nov. 18
Nov. 26	Dryer Cylinder, etc.—New York, N. Y.	Nov. 18
Nov. 29	Underground Cables—New York, N. Y.	Nov. 18
Dec. 1	Heating Work—Central Islip, New York, N. Y. Adv. Nov. 11 and 18.	Nov. 11
Dec 14	Dock Wall—Buffalo, N. Y. Adv. Nov. 18.	Nov. 18

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Ky., Covington — City voted $250,000 bond and soon receives bids building 10,000,000 gal. pumping unit and boilers. W. W. Stewart, city engr.

Ky., Harrodsburg—City voted $100,000 bonds to improve waterworks system. Noted Oct. 28.

O., Hamilton—City plans to extend water mains and drill several new wells, involving 1,500 ft. 4-6 in. c. i. pipe. About $150,000. W. Weaver, city eng.

O., Niles—City voted $75,000 bonds to enlarge buildings, purchase new equipment and extend water mains. Noted Nov. 11.

Mich., Benton Harbor—City plans to build new waterworks system of 6,000,000 gal daily capacity.

Ill., Waukegan—City having plans prepared for filtrating plant, pumping station and intake. About $600,000. Hoad & Decker, Ann Arbor, Mich., engrs.

Ia., Dunlap—City voted $39,000 bonds to build waterworks extensions.

Ia., Mason City—City voted $300,000 bonds to enlarge waterworks system, to include building reservoir and new wells and deepening present wells. F. P. Wilson, city engr.

Minn., Rush City—City plans to build waterworks system. About $60,000. J. F. Somers, clk. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs.

Minn., St. Paul — City voted $3,000,000 bonds for enlarging water plant, involving 8 mi. pipe line to Mississippi River, pumping station, filter plant, etc. O. Claussen, city engr.

Kan., Topeka—City having plans prepared by Black & Veatch, engrs., Interstate Bldg., Kansas City, Mo., for filtration and softening plant. Bonds for $535,000 voted for project.

Neb., Rulo—City having surveys made by E. Archer Co., engrs., 612 New England Bldg., Kansas City, Mo., for waterworks system. About $30,000.

S. D., Yankton—City election Nov. 23, to vote on $70,000 bonds to extend waterworks system. J. W. Summs, clk.

Wyo., Casper—City voted $500,000 bonds to extend municipal waterworks system. Noted Sept. 23.

Wyo., Laramie—City voted $119,500 bonds to improve waterworks system. Noted Oct. 7.

Waterworks (Continued)

Tex., Mineral Wells—City voted $200,000 bonds to lay pipe line and equip water supply plant at Lake Mineral Wells. W. W. McClendon, city engr.

Idaho, Weiser—City election Dec. 1, to vote on $125,000 bonds to build waterworks system. Burns & McDonell, 400 Interstate Bldg., Kansas City, Mo., engrs.

Utah, Price—City election Dec. 1, to vote on $50,000 bonds to enlarge and renew present water system. W. W. Jones, Price, engr.

Wash., Seattle—City authorized issuance of $6,000,000 bonds for water supply extensions. Bids will soon be received for inlet dam on east side of Swan Lake, to be 20 ft. high, 12 ft. thick at top, 100 ft. through at base and 450 ft. long, also outlet dam at south end of basin, 25 ft. high, 12 ft. thick at top, 145 ft. through at base and 1,300 ft. long. Following completion of dams lake will be filled; next problem in carrying of Swan Lake development work will be construction of new 68 in. steel pipe line, to cost $3,000,000, for which new bids will be called previous to first of year.

Cal., Vallejo—City voted $1,250,000 bonds to bring water from Gordon Valley, for city and navy yard purposes. Project involves building reservoir of 2,000,000,000 gal. capacity, 75 ft. earthen dam, and 12 mi. pipe line of 5,000,000 gal. daily capacity. T. D. Kilkenny, city engr. Noted Sept. 9.

Ont., Forest—Town plans election to vote on $50,000 bonds to build water-works system. Address H. J. Pettypiece, Forest.

Ont., Wingham—Town plans election to vote on $50,000 bonds to lay new mains, drill additional well and increase capacity of present reservoir.

BIDS DESIRED

Mass., Fall River—H. K. Barrows, engr., 63 Beacon St., Boston, receiving bids building 1 story, 35 x 40 ft. brick and rein.-con. pumping station, also dam at Watuppa Pond, for city. About $150,000.

N. Y., Ossining—See "Sewers."

N. Y., Poughkeepsie—Until Dec. 15, by State Hospital Comn., Capitol, Albany, altering and building additions to water supply system, to include additional filter, change of watermain and new reservoir. E. S. Elwood, secy.; advertised in this issue.

N. Y., Thiells—See "Sewers."

Mich., Alma—Until Nov. 30, by W. E. Reynolds, city mgr., furnishing one 150,000 gal. elevated tank (alternate bids on 200,000 gal. tank) and one 1,000,000 gal. reservoir; advertised in this issue. Noted Oct. 21.

Mich., Saginaw—Until Dec. 7, by city, furnishing, laying, connecting, testing and making water tight pipe connection from Porter St. to Washington Ave. Hazen, Whipple & Fuller, 30 East 42nd St., New York City, consult. engrs.; advertised in this issue.

Okla., Vinita—Until Jan. 10, by city, building 2 concrete dams, 5 mi. pipe line, plant, tower and intake. Bond for $460,000 voted for project. H. G. Olmstead & Co., 417 Oil Exch., Oklahoma City, engrs. Noted Sept. 23.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Pub. Wks. Dept., City Hall Annex, let contract laying c.i. water pipes and necessary appurtenances, on Battery and Atlantic Sts., to T. Russo, 72 Pinehurst St., Roslindale. About $15,000.

★**O., Garfield Heights** (Cleveland P. O.)—Village let contracts laying 4-10 in. c. i. water mains in Parkheights and Plymouth Aves., to A. Lanese, Columbia Bldg., Cleveland, $14,516 and $16,777 respectively; McCracken Rd., to Salem & George Bros., 237 Bradley Court, Cleveland, $29,053; Garfield Blvd., to Curro Bros., Murray Hill Rd., Cleveland, $5,554. Noted Oct. 14.

★**Wis., Janesville**—City let contract furnishing and erecting pumping engine, to Murray Iron Wks., Burlington, Ia., $46,538. Noted Oct. 28.

★**Minn., Wells**—City let contract building waterworks system, to O. H. Olson & Co., Stillwater, $15,225.

★**Kan., Portis**—City let contract building waterworks system, including water tower, distributing system, etc., to C. H. Everett, Hutchison, $25,590. Noted Oct. 21.

★**Tex., Dallas**—City will lay about 1 mi. 12 in. c.i. water mains in McKinney Ave. from Haskell to Knox Sts. About $21,000. Work will be done by day labor.

Sewers

PROPOSED WORK

N. Y., Syracuse—Common Council ordered building of sewers in Maplewood Ave., Court, Dale, Hillside and Wadsworth Sts., 8-10 vitr. and segmental block pipe. About $27,600. H. C. Allen, City Hall, engr.

N. J., Glen Rock (Ridgewood P. O.)—Boro having plans prepared by H. J. Harder, engr., for sewerage system.

N. J., Trenton—Bd. Freeholders Mercer Co. plans to build drains along Brunswick Pike between Clarksville and Millstone River, involving 7,210 ft. 10-24 in. vitr. pipe, 5,900 ft. 6 in. French drain, 26 inlets, etc. About $25,000. H. Harris, Court House, eng.

Pa., Reading—See "Buildings."

N. C., Durham—City plans to issue $100,000 bonds to extend sewers in various streets. H. W. Kueffner, city engr.

Ky., Louisville—City plans to extend sewers in various streets. About $100,000. J. Chambers, city engr.

O., Bedford—Village receives bids in spring building 5,500 ft. 10 in. vitr. sewer in Center Rd. B. T. Wright, Bedford, engr.

O., Warren—City plans to build 8,744 ft. storm and sanitary sewers in Red Run Dist. About $544,000. A. Potter, 50 Church St., New York City, engr.

Ind., Hobart—Bd. Trustees had preliminary estimates made for building sewers in Dist. 2, involving 10,000 lin.ft. 10-36 in. pipe. About $75,000. W. J. Krull, Hobart, civil engr.

Wis., Ellsworth—City had preliminary plans prepared and receives bids in March, building sewerage system. Druar & Milinowski, 512-14 Globe Bldg., St. Paul, Minn., engrs.

Minn., Red Wing—City voted $50,000 bond for sewers, paving and fire protection. Noted Oct. 21.

Kan., Scandia—City having plans prepared for new sewerage system. E. T. Archer Co., 612 New England Bldg., Kansas City, Mo., engrs.

Wyo., Casper—City voted $150,000 bonds to extend sewerage system. Noted Sept. 23.

Wyo., Laramie—City voted $162,000 bonds to improve sewerage system. Noted Oct. 7.

Tex., Austin—City election Dec. 12, to vote on $20,000 bonds to improve and extend sewage disposal plant. C. E. Leonard, city engr.

Tex., Austin—City election Dec. 14, to vote on $55,000 bonds to extend sanitary sewerage system. C. E. Leonard, city engr.

Tex., Breckenridge—City plans election to vote on $250,000 bonds to build sewerage system.

Okla., Ft. Gibson—City plans to build new sewerage system, involving 5½ mi. 8-12 in. pipe. About $70,000. Engineer not selected.

BIDS DESIRED

N. Y., Ossining—Until Dec. 8, by C. F. Rattigan, supt. State Prisons, Capitol, Albany, building sewerage and water supply systems, here. Advertised in this issue. Noted Oct. 21.

N. Y., Thiells—Until Dec. 1, by F. A. Vanderlip, pres. Bd. Mgrs. Letchworth Village, 7 Wall St., New York City, building underground sewer, water and electric service connections, here. Advertised in this issue.

Ky., Covington—Until Nov. 26, by Comn. Pub. Wks., building sewers in 27th St., Madison and Decoursey Aves., involving 5,800 ft. 6-18 in. vitr. tile pipe, etc. W. W. Stewart, city engr.

Mich., Detroit—Until Nov. 26, by J. A. Martin, comr. Pub. Wks., building and finishing various sections of Six Mile Rd. Sewer. Sect. 5, from Lumkin to Omira Aves., involves 4,500 ft. 10 ft. 6 in. cylinder, etc.; Sect. 6, from Omira to 3rd Aves., 4,183 ft. 10 ft. 6 in. and 9 ft. 6 in. cylinder, etc.; Sect. 7, from 3rd to Linwood Aves., ft. 9 ft. and 8 ft. 3 in. cylinder, etc. Hubbell, city engr.

Minn., Little Falls—Until Dec. 6, Johnson, city. clk., building trunk sewer Dist. 2, involving 5,250 ft. 15-20 in. 13 manholes, 11 catch basins, 330 ft. vitr. pipe connections, 1 outlet concrete. About $30,000. C. L. Pillsbury Co., Metropolitan Life Bldg., Minneapolis, engr.

Kan., Stockton—Until Jan. 10 by building vitr. and c.i. sanitary sewers various streets. Former bids rejected. About $65,000. E. T. Archer Co., 609 England Bldg., Kansas City, Mo., engr. Noted Oct. 21.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Portland**—City let contracts constructing 712 ft., 8-12 in. vitr. pipe sewer in Manners Ave. and right of way, to F. Profenno, 255 Capisic St., $5,463; 1,268 ft. 24 in. vitr. pipe sewers in Allen Ave., A. D. Pietrino, 67 Fore St., $11,938.

Mass., Chicopee—F. P. Cobb, city eng. received only bid completing Williams St. sewer in McKinstry Ave. and Meadow St. segmental block, from Cortner & Montgomery, 373 Bay St., Springfield. About $18,000. Noted Nov. 4.

★**Conn., Hartford**—City let contract building vitr. sewer in Gidding St., to A. D. Ambrosio, 84 Silver Lane, East Hartford, $5,000; Chapel St., to B. Silvestri, 21 Otis St., $10,000.

★**N. Y., Middletown**—State Hospital Comn., Capitol, Albany, let contract constructing underground sewer connections for chronic building, here, to T. E. O'Brien, Inc., 6503 5th Ave., Brooklyn, $25,700. Noted Oct. 28.

N. Y., Syracuse—Intercepting Sewer Comn., City Hall, received bids Nov. 5 building sewers in Plum and Spencer Sts., from J. Young, Bastable Blk., $258,551; Grant, Smith & Co., Utica, $265,807; Wiring-Turner Constr. Co., Stewart Bldg., Baltimore, Md., $348,285. Noted Oct. 21.

D. C., Wash.—Dist. Comrs. received bids constructing sewerage system, involving 1,000 lin.ft. of 15 in. pipe (1) excavation (2) sewer brick masonry (3) terra cotta pipe sewer, from G. Hyman, West Virginia Ave., N. E., (1) $1.60 (2) $30, (3) $1.10; W. F. Cush, 3rd and R Sts., N. E., (1) $1.19 (2) $37, (3) $1.85; G. B. Mullin Co., 3303 11th St. N. W., (1) $1.90 (2) $29.35, (3) $1.65 lin.ft.

★**O., Garfield Heights** (Cleveland P. O.)—Village let contracts to A. Lanese, Columbia Bldg., Cleveland, building sewers in Plymouth Ave., cost $12,777, Park Heights Ave., $13,096, South Highland Ave., $3,253, Salem & George Bros., 237 Bradley Court, Cleveland, in Heinton Ave., East 95th, 96th and 97th Sts., $12,245. Noted Nov. 11.

★**O., Springfield**—City let contract furnishing and laying 1,200 ft. 6-12 in. vitr. pipe sewer, in west side streets, to F. H. Krumholst, Springfield, $15,215.

★**O., Yorkville**—City let contract building 5 mi. sewer in 3 Sewer Dists., involving 72 manholes, 21,000 cu.yd. earth trenching, to E. C. Baker, Uniontown, Pa., $64,484. Noted Sept. 23.

★**Mich., Milford**—Village let contract furnishing labor and material building sewerage system, involving 3,665 ft. 8-15 in. pipe, 1 septic tank, etc., to M. C. Livingstone, Pontiac, $12,534; 2,500 cu. yd. earth fill, to Wells & Odlen, Penobscot Bldg., Detroit, $1.47 per cu. yd., total $3,675. Noted Oct. 14.

★**Minn., Milaca**—City let contract building sewerage system to Milaca Bridge Co., Milica. About $22,500.

★**Mo., Cameron**—City let contract building clay sewers in various streets, involving 5,845 ft. 8 in. vitr. pipe, etc., to Johnson & Kobett, Cameron, $13,467. Noted Oct. 21.

★**Tex., Dallas**—City let contract for 25,000 cu.yd. earth trenching and laying 2 mi. vitr. and tile pipe sewers in connection with sanitary sewerage system in Parkview Addition, to Klein Bros., Junius and Walton Sts., $38,773; pipe, to Blackmer & Post Pipe Co., Dallas, $18,861. Noted Nov. 4.

★**Col., Haxtum**—City let contract building sanitary sewers in various streets, to Gordon Constr. Co., Century Bldg., Denver. About $60,000.

Sewers (Continued)

★**Utah, Delta**—City let contract building sewers in various streets, to C. Thompson, Delta, $100,519.

★**Ariz., Yuma**—City let contract building sewerage system in Dist. 3, involving 69,820 lin. ft. 4-20 in. vitr. clay pipe, 8 flush tanks, 52 manholes, 16 x 16 ft. concrete pump house, and pumping unit complete, to C. Fisher, 128 Willetta St., Phoenix, $139,461. Noted May 13.

Bridges

PROPOSED WORK

N. Y., Albany—New York Central R.R., Grand Central Terminal, New York City, plans to build bridge between Shodack Landing and Fura Bush, 10 mi. from here. About $20,000,000. P. H. Dudley, consult. engr.

Fla., Bradentown — See "Streets and Roads."

O., Kenton—Hardin Co. voted $250,000 bonds to build 14 new steel bridges, on concrete piers and abutments, (to have spans varying from 100 to 140 ft.) over Scioto River. S. W. Enterline, co., engr.

Ia., Ft. Dodge — J. L. Hanrahan, aud. Webster Co., soon receives bids building D.D. 306, involving 24,100 lin.ft. 6-36 in tile, cost $62,247. D.D. 247, 46,590 lin.ft. 6-48 in. tile, $120,890. J. L. Ransom, co. drainage engr.

Wis., West Allis (Milwaukee P. O.)—City having plans prepared for rein.-con. span bridges, on 77th and Jersey Sts., and 77th and Arthur Sts. About $16,000. A. Schneider, City Hall, engr.

Kan., Norton—Norton Co. had plans prepared for Bridge No. 10, to have 50 ft. through girder span. T. F. Bright, Norton, engr.

South Dakota — State Highway Dept., Pierre, soon receives bids building 525 ft. bridge over Cheyenne River, in Fall River Co., Federal Aid Project 69, to have three 174 ft. trusses on 2 center piers and abutments, involving 207 cu.yd. excav., 190 cu.yd. concrete, 400,000 lb. structural steel, 18,000 lb. steel piling, etc. About $50,200. J. E. Kirkham, bridge engr.

Missouri—State Highway Dept., Jefferson City, plans to build steel truss superstructure with I beam approaches, 2 rein.-con. bents, 2 mass concrete and 2 rein.-con. piers, over White River, near Forsyth, Federal Aid Project 163, Taney Co., involving 357.2 cu.yd. Class "B" and 96 cu.yd. Class "C" concrete, 8,569 lb. reinforcing and 328,100 lb. fabricated structural steel, 4,875 lb. steel castings, etc., cost $62,500; steel truss superstructure with I beam approaches, 4 rein.-con. pile bents, 2 rein.-con. piers, over Osage River, on Butler-Nevada Rd., Federal Aid Project 166, Vernon Co., 71.2 cu.yd. Class "B" and 40.4 cu.yd. Class "C" concrete, 1,750 lb. reinforcing and 77,800 lb. fabricated structural steel, 1,650 lb. steel castings, 14,250 ft. untreated and 6,775 ft. creosoted timber, etc., $21,000; rein.-con. skew slab superstructure and facing old abutments with concrete, over Gravois Creek, on state road, St. Louis Co., 22.8 cu.yd. Class "A," 162 cu.yd. Class "B" and 78.5 cu.yd. Class "C" concrete, 14,630 lb. reinforcing steel; rein.-con. through girder superstructures, facing old abutments with concrete and adding rein.-con. extensions to wings, on following bridges, over Mattis Creek, on Lemay Ferry Rd., Federal Aid Project 80, St. Louis Co., 6.1 cu.yd. Class "A" and 193.7 cu.yd. Class "B" concrete, 20,420 lb. reinforcing steel; over West Branch of Grand Glaze Creek, on Sta. 480 plus 00, Manchester Rd., Federal Aid Project 77, St. Louis Co., 3.8 cu.yd. Class "A" and 92.9 cu.yd. Class "B" concrete, 8,450 lb. reinforcing steel; over branch of Grand Glaze Creek, on Sta. 351 plus 00, Manchester Rd., Federal Aid Project 77, St. Louis Co., 150.6 cu.yd. Class "B" and 4.3 cu.yd. Class "A" concrete, 13,520 lb. reinforcing steel; over center branch of Grand Glaze Creek, on Manchester Rd., Federal Aid Project 77, St. Louis Co., 4.8 cu.yd. Class "A" and 217.6 cu.yd. Class "B" concrete, 18,860 lb. reinforcing steel; over Fish Pot Creek, on Sta. 581 plus 00, state road, St. Louis Co., 117 cu.yd. Class "B" and 4.3 cu.yd. Class "A" concrete, 11,630 lb. reinforcing steel.

Tex., Austin—City election Dec. 12 to vote on $25,000 bonds to build bridge. C. H. Leonard, city engr.

Tex., Corpus Christi — Nueces Co. had plans prepared for 8,511 ft. bridge, 20 ft. wide, over Neches Bay. About $110,000. O. N. Powell, co. engr.

Tex., Del Rio — Val Verde Co. having plans prepared building 600 ft. concrete low-water bridge over Rio Grande River. About $100,000. W. E. Simpson Co., Hicks Bldg., San Antonio, engrs.

Tex., Orange—Orange Co. had plans prepared and soon receives bids building 690 ft. rein.-con. bridge, 18 ft. roadway, over Adams Bayou, to have 60 ft. through girder and concrete trestle approaches. Work involves 1,067.7 cu.yd. 1:2:4 rein.-con., 2,508 lin.ft. concrete piling, 109,866 lb. reinforcing and 1,106 lb. structural steel, etc. About $56,000. J. E. Johnson, co. engr.

BIDS DESIRED

Conn., Beckley—Palmer & Ludorf, archts and engrs., 122 Main St., New Britain, receiving bids constructing rein.-con. railroad trestle and siding, over Sebethe River, for Allied Trap Rock Co., here. About $15,000.

Fla., Miami—Until Jan. 8, by city, building double leaf steel bascule span bridge over Miami River on Ave. G, to have 115 ft. clear span, 30 ft. roadway and two 6 ft. walks, rein.-con. bascule piers and retaining walls. C. W. Murray, city engr. Harrington, Howard & Ash, 1012 Baltimore Ave., Kansas City, Mo., consult. engrs.

Fla., White Springs—Until Dec. 10, by State Highway Dept., Tallahassee, building through steel truss bridge, 20 ft. roadway, 228 ft. center to center pins, rein.-con. abutments, here, involving 503 cu. yd. concrete, 3,480 lin. ft. wood foundation piling, 34,500 lb. steel reinforcing, 41,000 lb. structural steel, 15,200 lb. cast steel plates, rollers, etc. C. A. Browne, state highway engr.

Minn., Grand Rapids—Until Dec. 7, by T. Erskine, aud. Ithasca Co. building Bridge 3252, over Mississippi River to have four 60 ft. Strauss trunnion bascule spans. About $100,000.

Minn., Grand Rapids—Until Dec. 7, by T. Erskine, aud. Ithasca Co. building Bridge 3303 over Prairie River, to have three 75 ft. low truss steel spans, 20 ft. roadway, concrete abutments, involving 160,815 lb. steel, etc. About $30,000. Noted July 15.

Kan., Columbus—Until Nov. 29 by Cherokee Co., building Slough Bridge, 150 ft. long, to have three 50 ft. T girder spans (with alternate design by Topeka Bridge & Constr. Co. for three 50 ft. arch spans), concrete or steel; Spring River Bridge, 512 ft. long, to have eight 60 ft. T girder spans (alternate design by Topeka Bridge & Constr. Co.) for seven arch spans, 67-76 ft. and probable alternate by Kansas Bridge Co. for steel bridge (number of spans not determined), concrete or steel. C. M. Cooper, Columbus, engr.

Kan., Columbus—Until Dec. 1, by Cherokee Co., building 150 ft. Marsh arch or T girder bridge, 18 ft. wide, cost $30,000; 550 ft. steel or concrete bridge. Marsh arch or T girder, 18 ft. wide, $125,000. C. M. Cooper, Columbus, engr.

Kan., Topeka—Until Dec. 3, by Shawnee Co., building marsh arch bridge on Rochester Rd., involving 1,000 cu. yd. rein.-con., 40 ton steel, 3,500 lin. ft. wooden piling and 500 cu. yd. earth approach and fill. About $40,000. A. C. Lagerwall, Topeka, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Thomaston**—Maine Central R.R., Portland, let contract building steel bridge, over Mill Creek, to Amer. Bridge Co., 120 Franklin St., Boston. About $15,000.

★**N. Y., Long Beach**—Bd. Supervs. Nassau Co., Court House, Mineola, let contract building bridge over Wreck Lead, here, to J. T. Brady & Co., 103 Park Ave., New York City, $979,840. Noted Oct. 28.

★**Mo., Jefferson City**—Cole Co. let contract to Kansas City Bridge Co., 510 Orear Leslie Bldg., Kansas City, Mo., building steel bridge over Osage River, near Huber Ferry, Federal Aid Project 12, consisting of one 100 ft. steel truss vertical lift span, flanked on each side by two 140 ft. and one 60 ft. steel truss spans, involving 2,400 lb. wire ropes, at $0.45 per lb. 44 cu. yd. concrete counterweights, $34, 570 cu. yd. concrete pier bases, $70, 530 cu.yd. concrete pier shafts, $34, 80 cu. yd. concrete end piers, $34, 5,250 lin. ft. foundation piles, $2.10, 2,250 lin. ft. pile cutoffs, $0.42, 130 cu. yd. excav.-end piers, $4.50, etc., total cost $125,428. Noted Oct. 28.

Tex., Laredo—Laredo Bridge Co. received bids Oct. 29, building 810 ft. rein.-con. arch bridge, 39 ft. wide, over Rio Grande River, to have five 150 ft. arch spans and one 60 ft. girder span, from J. De Puy, Bedell Bldg., San Antonio, $287,390; H. F. Friestedt Co., Houston, $419,000; McKenzie Constr. Co., Bedell Bldg., San Antonio, $425,000; including estimated cost and fee. Noted Oct. 21.

★**Wash., Yakima**—Yakima Co. let contract building Moxee Bridge, near here, to have two 301 ft. steel spans, 20 ft. wide, to Union Bridge Co., Seattle, $94,987. Noted Nov. 4.

Streets and Roads

PROPOSED WORK

Pa., Reading — See "Buildings."

North Carolina — State Highway Comm., Raleigh, plans to topsoil 5.11 mi. road from Shelby to Cherokee Co. line, Federal Aid Project 131, Cleveland Co., $37,300; 8 mi. road from Lenoir to Wilkes Co. line and 15.72 mi. road from Lenoir to Catawba Co. line, Federal Aid Project 139, Caldwell Co., $40,000 and $93,489 respectively; surface 7 mi. Bakersville-Spruce Pine Rd., Federal Aid Project 135A and 7 mi. above mentioned road, Federal Aid Project 135B, Mitchell Co., gravel or waterbound macadam, $100,000 each; 5 mi. Boone-Blowing Rock Rd., Federal Aid Project 134A and 7.5 mi. road from Boone to Caldwell Co. line, Federal Aid Project 134B, Wautauga Co. waterbound macadam, $90,000 and $111,916 respectively; 17.93 mi. road from Almond to Topton, Macon Co., shale or gravel $260,000; 14 mi. Federal Aid Project 141, Yancey Co., shale or gravel, $158,646; 13 mi. road from Robinsville to Topton, Graham Co., gravel, $130,000; 10.22 mi. road from Hendersonville to Transylvania Co. line Federal Aid Project 115, Henderson Co., sand and gravel, $100,903; 6 mi. first section road from Hayesville to Cherokee Co. line, Federal Aid Project 118A and 6 mi. second section above mentioned road, Federal Aid Project 118B, Clay Co., sand and gravel, $62,000 each. W. S. Fallis, state highway engr.

N. C., Burlington—City plans to issue $22,000 bonds to pave various streets. M. W. McPherson, clk.

N. C., Durham—City plans to issue $125,000 bonds to grade, drain and pave various streets. H. W. Kueffner, city engr.

N. C., Greensboro—Guilford Co. election Dec. 14 to vote on $2,000,000 bonds to build hard-surfaced roads. Noted May 27.

N. C., Lillington—Stewarts Creek Twp., Harnett Co., plans to issue $25,000 bonds to grade, drain and surface 7 mi. Raleigh-Fayetteville Highway through Stewarts Creek Twp. W. T. Smith, Duke, engr. and secy. Twp. Rd. Comn.

South Carolina—State Highway Comm., Columbia, plans to topsoil 15 mi. Dorchester-Reevesville Rd., Dorchester Co.

South Carolina—State Highway Comm., Columbia, plans build 23.12 mi. Chesterfield-Chesaw Rd. and 3.28 mi. Washington-Atlanta Highway, Chesterfield Co., gravel.

South Carolina—State Highway Comm., Columbia, plans to build 7.92 mi. road from Manning toward Sumter, Federal Aid Project 44, sand clay, Clarendon Co.; 19.77 mi. road from Marion Co. line via Dillion to Marlboro Co. line, Federal Aid Project 59, gravel, Dillion Co.; 1.76 mi. Sect. 3, Dixie Highway, Federal Aid Project 55, cement concrete and 8.1 mi. Sect. B, above named road, top soil, Greenwood Co.; 11.03 mi. road from Clarendon Co. line to Kingstree, Federal Aid Project 80, sand clay, Williamsburg Co.; 0.67 mi. road through St. Matthews, Federal Aid Project 104, asphaltic concrete, Calhoun Co.; top soil 6.52 mi. road from Rock Hill to Roddeys Station, Federal Aid Project 71, York Co.; 12.54 mi. Sections A and B, road from end Project 24 to point near Spartanburg, southeast to Union Co. line; Federal Aid Project 73, Spartanburg Co.; 5.33 mi. road from Forest Creek to Spartanburg Co. line, Federal Aid Project 92, and 3.73 mi. road from Kelleys Station to end Federal Aid Project 94, Federal Aid Project 100, Union Co. C. H. Moorefield, state highway engr.

Streets and Roads (Continued)

Florida—State Highway Comn., Tallahassee, plans to pave (on top present shell road) 8 mi. road south of Jacksonville to Goodby Lake, 16 ft. wide, vitr. brick; grade and pave 40 mi. road from Brooks Co. (Georgia) line to Lake City, 16 ft. wide, Sanford Co., brick or asphalt. C. Brown, state highway engr.

Fla., Bradentown—City voted $160,000 bonds to build road and bridge from here to Annamaria Island and Gulf Beach.

Ala., Decatur—Morgan Co. voted $440,000 bonds to build state and Federal roads.

Ohio—State Highway Comn., Columbus, cancelled following projects:

Ashland Co., Sect. "C" Ashland-Wooster Rd., 0.378 mi., grading, constructing bridges and culverts and paving with bituminous concrete or brick.

Franklin Co., Sect. "P" Columbus-Sandusky Rd., 2.02 mi., grading, constructing drainage structures and paving with brick.

Putnam Co., Sect. "M" Van Wert-Ottawa Rd., 3.865 mi. grading, constructing bridges and culverts and paving with Kentucky rock asphalt on waterbound base.

Section "Ottoville" Van Wert-Ottawa Rd., 0.595 mi., grading, constructing bridges and culverts and paving with Kentucky rock asphalt on waterbound base. Noted Nov. 4.

Ohio—State Highway Dept., Columbus, plans to build Sect. of Cleveland-Wooster Rd. between Seville and Medina, cost $45,000, also Sect. of Cleveland-Wooster Rd., between Seville and Creston, $36,120, both in Medina Co.

Ohio—State Highway Comn., Columbus, plans to build roads in following counties:

Licking Co., Newark-Mt. Vernon Rd., concrete, cost $27,000.

Seneca Co., Fremont-Tiffin Rd., bituminous macadam, $30,000.

Hancock Co., Findlay-Delphos Rd., concrete, $20,000.

Ross Co., Logan-Chillicothe Rd., gravel, $30,000.

Guernsey Co., Cambridge-Newcomerstown Rd., concrete, $38,400.

Ohio.—State Highway Comn., Columbus, received no bids Nov. 12, grading, building bridges and culverts and paving 1.778 mi. Sect. "H-1" Barnesville-Woodfield Rd., Belmont Co., bituminous macadam. Noted Nov. 4.

O., Bedford—Village receives bids in spring grading and paving East Haven Sub-division, Willis and Tarbell Aves., brick on concrete base. B. T. Wright, Bedford, engr.

O., Warren—City Council plans to pave 2,400 ft. East Market St., 40 ft. wide. About $45,000.

Wisconsin—State Highway Dept., Madison, plans to grade, drain and surface 7.4 mi. Trunk Highway 13, Friendship-Wisconsin Rapids Rd., 16 ft. wide, clay or gravel, Adams Co., cost $66,000; 2 mi. Trunk Highway 13, Ashland-Mellen Rd., commencing about 227 ft. south of E. ¼ corner of Sect. 16, T. 45N., R. 3W, thence northerly, (gravel) $18,000, Trunk Highway 13, Ashland-Mellen Rd., commencing near E. ¼ corner of Sect. 28, T 43 N., R.2 W., thence easterly, gravel, $18,000, Ashland Co.; 7.8 mi. Trunk Highway 11, Spooner-Cameron Rd., gravel, $78,000, 4.5 mi. Trunk Highway 11, New Auburn-Chetek Rd., gravel, $51,000, Barron Co.; 8¼ mi. Trunk Highway 24, Drummond-Ashland Rd., gravel or top soil, Bayfield Co., $66,000; 6.8 mi. Trunk Highway 35, Danbury-Superior Rd., top soil, Burnett Co., $114,000; 7.5 mi. Trunk Highway 43, Cornell-Ladysmith Rd., gravel or other material, $63,000, 2.75 mi. Trunk Highway 64, Bloomer-New Richmond Rd., gravel or other material, $27,000, Chippewa Co.; ¼ mi. Trunk Highway 16, gravel, $19,500, 1.5 mi. Trunk Highway 12, Alma-Center-Fairchild Rd., gravel, $28,500, 7 mi. Trunk Highway 18, Neillsville-Marshfield Rd., gravel or disintegrated granite, $82,500, Clark Co.; Trunk Highway 29, Portage-Kilbourn Rd., gravel, $24,000 Trunk Highway 31 Sun Prairie-Columbus Rd., gravel, $30,000, Trunk Highways 10 and 29, Portage-Wyocena Rd., $60,000, Columbia Co.; relocating grading and draining Trunk Highway 60, Wauzeka-Prairie du Chien Rd., $176,002, grading, draining and culverting Trunk Highway 60, Federal Aid Project 106, $90,000, Crawford Co.; grading and draining 8 mi. Trunk Highway 12, Middleton-Sauk City Rd., $50,000, 4 mi. Trunk Highway 12, Madison-Cambridge Rd., $45,000, 11.3 mi. Trunk Highway 19, Verona-Mt. Horeb Rd., $120,000, 3.01 mi. Trunk Highway 19, Waterloo-Marshall Rd., $39,000, Trunk Highway 31, Sun Prairie-Columbus Rd., $6,600, 7 mi. Trunk Highway 11, Middleton-Cross Plains Rd., $90,000; Dane Co.; grading, draining and surfacing 6¾ mi. Trunk Highway 118, Horicon-Beaver Dam Rd., 18 ft. wide, concrete, Dodge Co., $282,000; 8 mi. Trunk Highway 78, Green Bay-Sturgeon Bay Rd., Federal Aid Project 151, stone or gravel, Door Co., $85,000; 2¾ mi. Trunk Highway 35, Superior-Danbury Rd., gravel, Douglas Co., $39,000; relocating, grading, draining and surfacing 2.25 mi. Trunk Highway 64, Connorsville-New Richmond Rd., clay or other material, $30,000, 3.75 mi. Trunk Highway 64, Bloomer-Connorsville Rd., clay or other material, $43,500, grading, draining and surfacing 2.3 mi. Trunk Highway 25, Menomonie-Wheeler Rd., clay or gravel, $19,800, 4 mi. Trunk Highway 12, Menomonie-Eau Claire Rd., Federal Aid Project 127, 18 ft. wide, concrete, $162,000, Dunn Co.; 4.5 mi. Trunk Highway 37, Eau Claire-Mondovi Rd., gravel, Eau Claire Co., $57,000; grading and draining 4.5 mi. Trunk Highway 14, Armstrong Creek-Florence Rd., Florence Co., $45,000; grading, draining and surfacing 6¾ mi. Trunk Highway 15, Fond du Lac-Milwaukee Rd., Federal Aid Project 154, 18 ft. wide, concrete, Fond du Lac Co., $258,008; 5 mi. Trunk Highways 14 and 32, Laona-Crandon Rd., Federal Aid Project 155, gravel, $75,000, 4.46 mi. Pelican-Crandon Rd., Federal Aid Project 73, gravel, Forest Co.; 1 mi. Trunk Highway 30, Potosi-Dickeyville Rd., concrete, $58,000, Trunk Highway 39, Boscobel-Fennimore Rd., Federal Aid Project 141, 18 ft. wide, concrete, $60,000, ¾ mi. Trunk Highway 28, Dubuque-Platteville Rd., $48,000, grading, draining and bridging 1.72 mi. Trunk Highway 20, Dubuque-Hazel Green Rd., $45,000, 5 mi. Trunk Highway 65, Lancaster-Bloomington Rd., $100,000, Grant Co.; relocating, grading, draining and surfacing 8.33. mi. Trunk Highway 28, Mineral Point-Dodgeville Rd., $125,000, grading, draining and culverting Trunk Highway 19, Madison-Dodgeville Rd., $135,000, Iowa Co.; grading, draining and surfacing 5.5 mi. Trunk Highway 10, Ashland-Hurley Rd., gravel, $60,000, Hurley-Mercer Rd., Federal Aid Project 158, Iron Co.; relocating, grading, draining and surfacing Trunk Highway 84, Hexton Northfield Rd., 16 ft. wide, shale, $30,000, 12 mi. Trunk Highway 12, Black River Falls-Millston Rd., 16 ft. wide, shale, $117,615, 1.1 mi. Trunk Highway 52, Black River Falls-Melrose Rd., 16 ft. wide, concrete, $41,600, shaling sandy portions of Federal Aid Project 84 and grading, draining and shaling portion of Trunk Highway 12, Black River Falls-Alma Center Rd., 16 ft. wide, $20,000, Jackson Co.; grading, draining and surfacing 2.04 mi. Trunk Highway 41, Jefferson-Cambridge Rd., 18 ft. wide, concrete, $60,000, 1½ mi. Trunk Highway 19, Watertown Plank Rd., Federal Aid Project 72, $57,000; relocating, grading and draining 4.15 mi. Trunk Highway 41, Helenville-Sullivan Rd., $60,000, Jefferson Co.; grading, relocating, draining and surfacing 1.51 mi. Trunk Highway 94, Elroy-Wonewoc Rd., gravel or stone, Juneau Co., $48,000; grading, draining and surfacing 2.43 mi. Trunk Highway 96, Stangelville-Kewaunee Rd., stone or gravel, $24,000, 2 mi. Trunk Highway 54, Green Bay-Kewaunee Rd., stone or gravel, $20,000, Kewaunee Co.; La Cross-Sparta Rd., Federal Aid Project 164, 18 ft. wide, concrete, La Crosse Co.; grading and draining 5.06 mi. Trunk Highway 81, Blanchardville Argyle Rd., $60,000, 6.45 mi. Trunk Highway 28, Mineral Point-Belmont Rd., $45,000, Lafayette Co.; grading, draining and surfacing 4.5 mi. Trunk Highway 39, Antigo-Rhinelander Rd., gravel, Langlade Co., $75,000; Trunk Highway 10, Gilbert-Irma Rd., Lincoln Co., $75,000; 4.84 mi. Trunk Highway 17, Manitowoc-Sheboygan Rd., 18 ft. wide, concrete, Manitowoc Co., $146,182; 14.1 mi. Trunk Highway 13, Marshfield-Abbotsford Rd., 18 ft. wide, gravel, $190,000, 5.1 mi. Trunk Highway 10, Wausau-Merrill Rd., 18 ft. wide, gravel, Marathon Co., $75,000; 12 mi Trunk Highway 38, Crivitz-Wausankee Rd., stone or gravel, Marinette Co., $174,000; 1.63 mi. Trunk Highway 10, Portage-Stevens Point Rd., 16 ft. wide, gravel, Marquette Co., $30,000; Trunk Highway 74, Whitefish Bay-Crown Deer Rd., concrete, Milwaukee Co., $255,000; grading, relocating, draining and surfacing 4 mi. Trunk Highway 27, Sparta-Black River Falls Rd., shale, $38,000, 4.6 mi. Trunk Highway 21, Mauston-Sparta Rd., Federal Aid Project 48, 16 ft. wide, shale, $40,000, grading, draining and surfacing .88 mi. Trunk Highway 21, Sparta-La Crosse Rd., 18 ft. wide, concrete, $36,000, La Crosse-Sparta Rd., Federal Aid Project 107, Monroe Co.; 7.06 mi. Trunk Highway 38, Green Bay-Stiles Rd., clay or gravel, $100,000, Green Bay-Oconto Rd., Federal Aid Project 114, Oconto Co.; 6 mi. Trunk Highway 14, Rhinelander-Cassian Rd., Oneida Co., $90,000; 2.84 mi. Trunk Highway 54, Seymour-Black Creek Rd., stone or gravel, $50,000, 2.35 mi. Trunk H[illegible] 18, Appleton-Dale-Medina Rd., 20 f[illegible] concrete, $80,000, Outagamie Co., 2[illegible] Trunk Highway 85, Durand-Eau Cl[illegible] shale or gravel, Pepin Co., $16,500; [illegible] Trunk Highway 34, Durand-Ellsworth [illegible] gravel, $76,500, 3.76 mi. Trunk Highw[illegible] Ellsworth River Falls, Federal Aid [illegible] 122, 15 ft. wide, gravel, $111,000, Pi[illegible] 3.54 mi. Trunk Highway 14, Turtle [illegible] Milltown Rd., gravel, $69,000, 3 mi. [illegible] Highway 35, Osceola-St. Croix Fall[illegible] gravel, $30,000, Polk Co.; 3.5 mi. [illegible] Highway 10, Stevens Point-Plover R[illegible] ft. wide, concrete, $127,977, 2 mi. [illegible] Highway 18, Stevens Point-Marshfi[illegible] 18 ft. wide, concrete, $120,000, Portag[illegible] grading and draining Trunk Highw[illegible] Fifield-Radisson Rd., $25,000, gr[illegible] draining and graveling 4 mi. Trunk [illegible] way 13, Prentice-Ashland Rd., $[illegible] Trunk Highways 13 and 14, Ogema-Pr[illegible] Catawba Rd., $75,000, Price Co.; relocat[illegible] grading, draining and surfacing Tr[illegible] Highway 15, 18 ft. wide, concrete, $[illegible] grading, draining and surfacing 5 mi. Tr[illegible] Highway 57, Kilbourn Rd., 18 ft. wi[illegible] concrete, $179,705, Racine Co.; grading [illegible] draining 8 mi. Trunk Highway 11, R[illegible] land Center-Viroqua Rd., Richland Co. $75,000; grading, draining and surfacing 8[illegible] mi. Trunk Highway 14, Ladysmith-Bru[illegible] Rd., Federal Aid Project 174, gravel, $99,000 graveling 5.9 mi. Trunk Highway 14, Lady[illegible] smith-Prentice Rd., Federal Aid Project 9[illegible] $30,000, Rusk Co.; grading, draining and surfacing 3.26 mi. Trunk Highway 12, 18 ft. wide, concrete, $135,000, relocating, grading, draining and partly surfacing 1.4 mi. Trunk Highway 64, clay or other material, $18,000, 1.4 mi. Trunk Highway 4[illegible] River Falls-Hudson Rd., gravel, $16,500 gravel surfacing Trunk Highway 12, Hudson-Eau Claire Rd., Federal Aid Project 15, $36,000, Hudson Menomonie Rd., Federal Aid Project 126, St. Croix Co.; relocating, grading and draining 7.7 mi. Trunk Highway 28, Reedsburg-Spring Green Rd. $60,000, grading, draining and graveling 3.01 mi. Trunk Highway 33, La Valle-Reedsburg Rd., $72,000, Sauk Co.; grading and draining 4 mi. Trunk Highway 4[illegible] Bruce-Radison Rd., $33,000, grading, draining and surfacing 7 mi. Trunk Highway 24, Hayward-Radisson Rd., top soil, $51,000 relocating, grading, draining and surfacing 5.5 mi. Trunk Highway 24, Hayward-Seeley Rd., gravel, $60,000, Sawyer Co.; grading, draining and surfacing 9 mi. Trunk Highway 16, Shawano-Wittenberg Rd., stone or gravel, Shawano Co., $75,000; 5.15 mi. Trunk Highway 17, Lake Shore Rd., 18 ft. wide, concrete, Sheboygan Co., $222,147; gravel surfacing Trunk Highway 13, Medford-Prentice Rd., Federal Aid Project 31, $21,000, grading, draining and surfacing 4.5 mi. Trunk Highway 64, Medford-Cornell Rd., Federal Aid Project 125, commencing at east line of S. 29, T. 31, R. 1 E. thence westerly, gravel or other material, $54,000, grading and draining 5.6 mi. Trunk Highway 64, Medford-Cornell Rd., commencing at N. E. corner of S. 2, T. 30, N., R. 3 W., thence easterly, $57,000, Taylor Co.; grading, relocating, draining and surfacing Trunk Highway 33, Hillsboro-Ontario Rd., top soil, Vernon Co., $30,000; grading, draining and surfacing 6.34 mi. Trunk Highway 51, Spooner-Cumberland Rd., gravel, $60,000, 8 mi. Trunk Highway 11, Spooner-Cameron Rd., top soil, $48,000, Washburn Co.; 2 mi. Trunk Highway 15, Milwaukee-Schleisingerville Rd., 18 ft. wide, concrete, $86,819, West Bend-Milwaukee Rd., Federal Aid Project 159, Washington Co.; Trunk Highway 22, Clintonville-New London Rd., Federal Aid Project 138, 18 ft. wide, concrete, Waupaca Co., $77,570; 6.5 mi. Trunk Highway 73, Wautoma-Plainfield Rd., 16 ft. wide, gravel, $66,000, Berlin-Weyauwega Rd., Federal Aid Project 48, Waushara Co.; 8 mi. Trunk Highway 13, Marshfield-Abbottsford Rd., 18 ft. wide, gravel, Wood Co., $12,000.

Wis., Grand Rapids—Wood Co. plans to build 3 mi. Auburndale-Marshfield Rd. from corner Sect. 21, T. 25 N., R. 3 E., thence northerly to Marshfield, cost $95,000; Wisconsin Rapids-Sherry-Milladore Rd. from Sta. 158 plus 40 to Sta. 197 plus 0. Apr. 42 F. 1920, $16,000. E. Morris, highway comr.

Wis., Green Bay—Brown Co. plans to build 4½ mi. Green Bay-Suamico Rd. from Duck Creek to Suamico, cost $155,000; 3½ mi. Belgian Rd. from Snyderville to Wrightstown Village, $52,000; 16 mi. Green Bay-Manitowoc Rd. from here to Manitowoc Co. line, $335,000; 17 mi. Green Bay-Shawano Rd. from here to Shawano Co. line, $350,000; 3 mi. Ashwaubenon River Rd. from here to De Pere, $100,000; 5 mi. Askeaton Brillion Rd. from Greenleaf to Calumet Co. line, $70,000, all concrete. C. J. Cormier, highway comr.

Streets and Roads (Continued)

Wis., Jefferson — Jefferson Co. plans to build 3¼ mi. Ft. Atkinson-Janesville Rd. from Ft. Atkinson construction limits to railroad crossing; ¾ mi. Watertown-Hubbleton Rd. from northwest tracks westerly, 2,000 ft.; 3¾ mi. Jefferson-Lake Mills Rd. from here thence 19,800 ft. westerly. R. D. Royce, Ft. Atkinson, highway comr.

Wis., La Crosse—La Crosse Co. having plans prepared widening macadam roads and improving all trunk highways, to include 12 mi. road from here to West Salem; Onalaska Rd. from point north of Holman and road from Bangor to Monroe Co. line at Big Creek. Total cost, $500,000. B. A. Olivette, clk.

Ia., Ft. Dodge—Webster Co. receives bids in spring improving various roads, including 15.5 mi. gravel surfacing on Federal Aid Project, 12 mi. grading and 8 mi. graveling on secondary road systems, also 36 mi. grading, involving 8,000 cu.yd. per mi. About $125,000. C. B. Stephenson, co. engr.

Minn., Red Wing—See "Sewers."

Neb., Chadron—Town rejected bids received Nov. 8, paving Dists. 2 and 3. About $700,000. R. D. Salisbury Co., 16th and Downing Sts., Denver, Col., engrs. Noted Nov. 4.

Neb., Pawnee City—City rejected bids received Oct. 19, paving 25 blocks, 30-40 ft. wide, brick, concrete and asphalt. About $200,000. Work will be readvertised in January. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs. Noted Oct. 14.

Missouri—Citizens of State voted in favor of amendment to State Constitution providing for bond issue of $60,000,000 to build roads. Noted Aug. 5.

Tex., Austin—City election Dec. 12 to to vote on $50,000 bonds for permanent street improvements. C. E. Leonard, city engr.

Tex., Brady—McCullough Co. having plans prepared gravel surfacing and draining 1.5 mi. Highway 9, Mason Brady Rd., involving 98.4 cu.yd. Class "A" concrete, 3,200 cu.yd. gravel and 1,535 lb. reinforcing steel. About $10,500. W. P. Doty, co. engr.

Tex., Breckenridge—City plans election to vote on $300,000 bonds to pave various streets.

Tex., Brenham—City plans election soon to vote on $40,000 bonds to pave various streets.

Tex., Canyon—City having specifications prepared paving public square. Bonds for $30,000 voted for project.

Tex., Center—Shelby Co. having plans prepared grading and draining 14 mi. Highway 22 from San Augustine east, involving 72 acres clearing and grubbing, 93.6 cu.yd. Class "C" concrete, 28,709 cu.yd. borrow and 43,052 cu.yd. earth excav. About $58,656. T. H. Dillon, co. engr.

Tex., Center — Shelby Co. having plans prepared grading, surfacing, draining and building timber trestle on 21.5 mi. Highway 22 from Sabine River west, involving 108 acres clearing and grubbing, 140 cu.yd. concrete, 102,879 ft. lumber in bridges, 41,850 cu.yd. gravel to be furnished by county, 64,578 cu.yd. earth and 43,064 cu.yd. earth borrow, etc. About $330,800. T. H. Dillon, co. engr. Noted Aug. 19.

Tex., Childress—Childress Co. had plans prepared grading, surfacing and building rein.-con. bridges and culverts on 10.11 mi. Highway 4, Federal Aid Project 163, involving 525.5 cu.yd. 1:2:4 concrete, 34,688 lb. reinforcing steel, 5,300 cu.yd. clay surfacing, 10,756 cu.yd. borrow, 40,604 cu.yd. earth and 383 cu.yd. solid rock excav., etc. About $52,888. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs. Noted May 13.

Tex., Dallas—Dallas Co. rejected bid received Oct. 28, paving and draining 18.8 mi. Garland Rd., 18 and 20 ft. wide, concrete. About $800,000. New specifications ordered. Nagle, Witt & Rollins Co., Gaston Bldg., co. engrs. Noted Nov. 11.

Colorado—State voted to issue $5,000,000 bonds to build highways. J. E. Maloney, Denver, state highway engr.

Idaho—State voted $2,000,000 bonds to build roads. D. P. Olson, Boise, state highway engr.

STREET IMPROVEMENT—AKRON, OHIO

Bids were received (lowest 3) by Dept. of Pub. Serv., Oct. 25th, for improving South Maple St., from West Market to West Exchange Sts., from (A) T. E. McShaffrey Constr. Co., 173 South Forge St.; (B) McAlonan Bros.; (C) Victor Olson Contg. Co. The unit bids were as follows:

	A	B	C
845 cu.yd. grading	$2.00	$2.00	$2.00
300 lin.ft. under drainage 4-in. pipe	.40	.30	.30
1 standard manhole castings	50.00	50.00	40.00
100 cu.yd. concrete, class 2	18.00	15.00	17.00
2,370 sq.yd. concrete, base 6-in. deep	2.50	2.40	2.35
155 sq.yd. concrete base, 7-in. deep	2.75	2.80	2.60
2,830 sq.yd. concrete base, 8-in. deep	3.00	3.00	2.90
200 lin.ft. sandstone curb	1.75	2.00	1.90
560 lin.ft. granite circular curb	4.50	4.50	4.50
300 lin.ft. curb redressed	.50	.40	.30
300 lin.ft. curb reset	.40	.60	.75
20 lin.ft. stone headers	1.00	1.20	1.25
400 sq.ft. cement walks	.30	.34	.32
100 sq.ft. cement driveways	.50	.50	.50
200 sq.ft. cement walks relaid	.30	.15	.25
10,930 sq.yd. asphalt pavement (wearing surf. only)	1.50	1.80	1.80
10,930 sq.yd. asphaltic concr. pavement (surf. only)	1.65	1.70	1.70
10,930 sq.yd. bitulithic pavement (surf. only)	2.50	1.80	.....
2,525 sq.yd. brick gutter (cem. filler)	3.00	3.00	3.25
2,525 sq.yd. brick gutter (asphalt filler)	3.20	3.00	3.40
2,525 sq.yd. brick gutter (mastic pitch, ver. fiber)	3.40	3.00	3.25
1,130 tons asphaltic binder	12.00	12.00	13.50
5 concrete monuments	25.00	20.00	20.00
1,000 lb. reinforcing steel	.15	.10	.12
15 sewer laterals	50.00	40.00	45.00
20 shade trees	20.00	20.00	12.00
4 w.i. roof drains relaid	20.00	10.00	10.00
860 lin.ft. 36-in. brick sewer, complete	15.18	17.00	18.00
680 lin.ft. 54-in. brick sewer, complete	29.00	30.00	29.00
5 manholes (std.) on brick sewers, 4 ft. dia. or less	125.00	150.00	150.00
860 lin.ft. 36-in. reinforced concrete pipe sewer, complete	.....	15.00	
680 lin.ft. 54-in. reinforced concrete pipe sewer, complete	.....	28.00	
5 manholes (std.) on rein. concr.	.....	.....	
860 lin.ft. pipe sewer of 4 ft. dia. or less	.....	150.00	
680 lin.ft. 36-in. seg. block sewer, complete	15.00	15.00	16.00
54-in. seg. block sewer, complete	27.00	28.00	27.00
5 manholes (std.) on seg. block	.....	.....	
200 cu.yd. sewer of 4 ft. dia. or less	150.00	150.00	150.00
Concrete masonry, class 3	.....	.....	
50 lin.ft. 8-in. vitrified pipe sewer, complete	4.50	5.00	3.50
250 lin.ft. 12-in. vitrified pipe sewer, complete	4.50	4.25	4.00
415 lin.ft. 15-in. vitrified pipe sewer, complete	5.00	6.00	4.50
1,090 lin.ft. 18-in. vitrified pipe sewer, complete	6.00	6.00	5.50
30 lin.ft. 20-in. vitrified pipe sewer, complete	210.00	8.00	5.50
635 lin.ft. 24-in. vitrified pipe sewer, complete	5,715.00	8.50	8.00
12 manholes (std.) on pipe sewer	1,800.00	150.00	150.00
15 street inlets, complete, plan 1	750.00	60.00	50.00
11 street inlets complete, plan 3	550.00	75.00	50.00
2 "T" or "Y" branches on 8-in. pipe sewer	4.00	2.00	3.50
2 "T" or "Y" branches on 12-in. pipe sewer	10.00	3.00	5.00
2 "T" or "Y" branches on 15-in. pipe sewer	12.00	4.00	5.00
2 "T" or "Y" branches on 18-in. pipe sewer	14.00	5.00	8.00
2 "T" or "Y" branches on 24-in. pipe sewer	18.00	10.00	12.00
5 6-in. slants in trunk sewer	7.50	1.00	1.00
2 8-in. stubs in trunk sewer	6.00	2.00	1.00
1 12-in. stubs in manhole	5.00	3.00	1.50
1 20-in. stubs in manhole	5.00	10.00	2.00
1 24-in. stubs in manhole	10.00	10.00	4.00
6-In. Vit. Pipe House Laterals:			
100 lin.ft. reconnected, complete	1,500.00	10.00	7.00
700 lin.ft. 12-in. vit. pipe inlet connections	1,750.00	2.20	2.75
1,500 lin.ft. 8-in. underdrain, complete	750.00	.50	1.00
20 cu.yd. gravel refill	50.00	4.00	3.00
60M.ft.b.m. sheeting left in place	900.00	40.00	20.00
20 cu.yd. special excavation	60.00	4.00	3.00
1 Junction chamber	1,500.00	800.00	200.00
1 sanitary interceptor connection	200.00	200.00	200.00
100 cu.yd. concrete masonry, class 3	1,500.00	12.00	14.00
5 cu.yd. brick masonry	125.00	30.00	25.00
50 sq.yd. brick repaving	200.00	2.50	4.00
Extended total for sheet asphalt paving	*$61,126	$63,576	$65,678
Extended total for asphaltic concrete paving	51,870	51,587	52,327
Extended total for bitulithic paving	61,160	52,680	.....
Extended total for sewers, drains and inlets—brick	$60,816	$63,555	$61,786
Extended total for sewers, drains and inlets—reinf. conc.	.....	60,475	.....
Extended total for sewers, drains and inlets—seg. bl.	*59,426	60,475	58,706

* Awarded contract.

Ont., Ottawa—Dept. Rys. & Canals plans to widen 1½ mi. Canal Rd. from St. Louis dam to Hogs Back. About $20,000. W. A. Bowden, c/o Dept. Rys. & Canals, engr.

BIDS DESIRED

Rhode Island—Until Dec. 1, by State Bd. Pub. Rds., State House, Providence, reconstructing section state highway in Town of Scituate, beginning ½ mi. east from village of North Scituate and extending west upon Danielson Pike, for distance of 5 mi.; advertised in this issue.

N. Y., New York—Until Nov. 24, by Park Comrs. furnishing labor and material for repaving with asphalt mastic walks in Riverside Park also surfacing Jasper Oval Playground. Noted Sept. 30.

New Jersey—Until Dec. 1, by State Highway Comn., Trenton, grading Route 3, Ancora-Atco Sect., Camden Co. A. L. Grover, ch. clk.; advertised in this issue. Noted July 8.

N. J., Belvidere—Until Dec. 8, by Bd. Freeholders Warren Co., grading Hope-Blairstown Rd., Hope and Blairstown Twps. M. S. Faust, clk.; advertised in this issue.

South Carolina—Until Nov. 20, by State Highway Comn., Columbia, graveling 12 mi. road from Orangeburg to Bamberg Co. line, Orangeburg Co. About $90,000.

Florida—Until Dec. 10, by State Highway Dept., Tallahassee improving and completing 9.9 mi. State Rd. 1, beginning at Lake City and extending east to Baker Co. line. C. A. Browne, state highway engr.; advertised in this issue.

Fla., Fort Myers—Until Dec. 2, by J. W. Owens, city clk., paving 1st St. from Fowler St. to Billys Creek, involving 11,873 sq.yd. concrete, asphalt or vitr. brick. About $25,000. J. A. Davidson, city engr.

Tenn., Knoxville—Until Nov. 23, by Bd. City Comrs., paving, curbing, guttering and sewering in Dists. 190, 191, 193, 194, 195, 197 and 198. J. L. Greer, city recdr.; advertised in this issue.

Indiana — By Bd. Co. Comrs. building roads in following counties:

Nov. 27, Vigo Co., Terre Haute, H. 24. Hausman et al Rd., gravel. C. M. Lee, aud.

Streets and Roads (Continued)

Gibson Co., Princeton, 15,538 ft. W. M. Crawford, Noley Williams Rd., Montgomery Twp., stone and gravel. J. H. Armstrong, aud.

Michigan—Until Nov. 22, by State Highway Dept., at dist. office, Kalamazoo, placing 16,000 cu.yd. beach gravel in 4 piles, adjacent to Federal Aid Project 32. Noted Oct. 28.

Wisconsin—Until Nov. 23 by State Highway Comn., div. office 8, 1st Natl. Bank Bldg., Superior, grading and paving 0.74 mi. Canton-Chetek Rd., Federal Aid Project 119, Barron Co., involving 5,500 cu.yd. earth excav., 36,690 lb. structural steel, 110 cu.yd. Class "B" and 22.5 cu.yd. Class "E" concrete, etc., also building one 60 ft. low riveted truss bridge, known as Landon Bridge.

Minn., Grand Rapids—Until Dec. 7, by Itasca Co., subgrading 7 mi. Job 2004, State Rd. 9, including Bridge 3445, ditches and culverts. Work involves 59 acres clearing and grubbing, 166,000 cu.yd. excav., 2,000 cu.yd. hand ditch, 793,000 cu.yd. overhaul, 19,600 lb. reinforcing steel, etc. About $160,000. H. A. LeSueur, Grand Rapids, engr.

Tex., Daingerfield—Until Nov. 23, by G. E. Shive, judge, Morris Co., grading, surfacing, draining and building trestles on 10.68 mi. Highway 1-A from Cass Co. line to Titus Co. line, involving 6 acres clearing and grubbing, 538 cu.yd. concrete, 16,640 cu.yd. gravel, 94,900 ft. lumber in trestle bridge, 36,092 cu.yd. borrow and 40,416 cu. yd. earth excav., etc., cost, $112,000; 2.7 mi. Highway 35 from Boggy Creek to Titus Co. line, 100 cu.yd. rein.-con., 45,000 ft. lumber in trestle bridge, 4,151 cu.yd. gravel surfacing, 7,153 cu.yd. earth borrow and 17,706 cu.yd. earth excav., etc., $42,000; both including 10 per cent for engineering and contingencies. McClendon & Purnell, co. engrs. Noted Sept. 30 and Nov. 4.

Tex., Linden—Until Nov. 22, by H. D. Nelson, judge Cass Co., grading, surfacing and draining 10.99 mi. Highway 1-C, Atlanta Rd., involving 2,086 lin.ft. grader work, 347.1 cu.yd. Class "A" and 57.5 cu.yd. Class "C" concrete, 17,197 cu.yd. gravel surfacing, 27,022 lb. reinforcing steel, 21,644 cu.yd. borrow and 42,169 cu.yd. earth excav., etc. About $126,742; including 10% for engineering and contingencies. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—City let contract resurfacing various streets, involving 2,200 sq.yd. Warrenite-bitulithic pavement, to J. C. Coleman, 1620 Tremont St.

★**N. Y., Brooklyn**—E. Riegelmann, boro pres., let contract relocating car tracks and rails on Bath Ave. from Bay 19th to Bay 121st Sts., to C. L. Riker, 19 Cedar St., New York City, $4,226; regulating and repaving Linder St. to Sicilian Asphalt Paving Co., 41 Park Row, New York City, $21,417; 72nd St. from 3rd to 6th Aves., to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $108,265. Noted Nov. 4.

N. Y., Brooklyn—E. Riegelmann, boro. pres., received bids Nov. 10, regulating and repaving (a) East 16th St. from Ditmas to Newkirk Aves., (b) Nostrand Ave. from Eastern Parkway to Empire Blvd., (c) Saratoga Ave. from Chauncey St. to Atlantic Ave., from Uvalde Asphalt Paving Co., 1 Bway., New York City, (a) 7,473; Sicilian Asphalt Paving Co., 41 Park Row, New York City, (a) $7,598; M. J. O'Hara, 3rd St., (b) $65,293, (c) $45,189; Nicaro Co., Inc., (b) $67,613, (c) $47,821; Grecco Bros., 172 Russell St., (c) $44,160. Noted Nov. 4.

★**North Carolina**—State Highway Comn., Raleigh, let contract improving 4.59 mi. road between point 1 mi. north of Mathews and Mecklenburg-Union Co line, Federal Aid Project 55B, 17 ft. wide Mecklenburg Co., to Simmons Constr. Co., Charlotte. About $170,000. Noted Oct. 21.

★**N. C., Washington**—Comrs. Beaufort Co. let contract for 50,000 sq.yd. Warrenite-bitulithic pavement, to R. G. Lassiter, 327-33 Monticello St., Arcade Bldg., Norfolk, Va.

Ohio—State Highway Dept., Columbus, received bids Nov. 12, grading, building bridges and culverts and paving roads in following counties:

Belmont Co., Sect. "I" Barnesville-Woodsfield Rd., 2.061 mi., bituminous macadam, from C. E. Wilson, Barnesville, $74,015.

Hamilton Co., Sect. "X" Glendale-Milford Rd., 2.561 mi., concrete, Gradison Constr. Co., 1st Natl. Bank Bldg., Cincinnati, $153,806; W. Huber, Eaton, $155,361.

Seneca Co. Sect. "D-1" Columbus-Sandusky Rd., bituminous macadam, C. M. Gray, Waterville, $77,919; R. M. Myers, Attica, $79,000; W. H. and H. A. Souder, Fostoria, $79,159.

Seneca Co., Sect. "R" Lima-Sandusky Rd., 2.167 mi., bituminous macadam, J. H. Murchy & Son, Burgoon, O., $76,394; D. W. Botkin & Son, Columbus, $76,590; J. H. Blausey, Woodville, $76,593.

Sect. "F-1" Bucyrus-Tiffin Rd., 0.884 mi., bituminous macadam, J. W. Carey, Ada, $31,004; W. L. Connell, Dayton; J. H. Blausey, Woodville, and C. M. Gray, Waterville, all the same bid of $31,751.

Sect. "G" Tiffin-New Haven Rd., 2.007 mi., bituminous macadam, J. A. Westrick & Son, Napoleon, $60,314; D. W. Botkin & Son, Columbus, $58,136; R. M. Myers, Attica, $59,997.

Montgomery Co., Sect. "P" Dayton-Troy Rd., 1.099 mi., rein.-con., D. A. Ongst & Son, Dayton, $39,659; Clifton Hoolihan, Dayton, $42,194; brick (contractor to furnish brick), R. H. Shafer Co., Columbus, Ohio, $58,842; W. L. Connell, Dayton, $59,564; brick (state to furnish brick) J. M. Hennessey & Bros., Piqua, $42,700; W. L. Connell, Dayton, $42,850.

Sect. "Q" and "Vandalia" Dayton-Troy Rd., 1.707 mi., rein-con., Clifton Hoolihan, Dayton, $90,881; Wroe, 605 U. B. Bldg., Dayton, $92,700; Williams & Little, Cleveland Heights, O., $93,520.

Licking Co., Sect. "F" Newark-Mt. Vernon Rd., 5.03 mi. concrete, from McHugh Bros., Springfield, $242,485; Newark Paving & Constr. Co., Newark, concrete $242,117, brick (contractor furnishing brick) $278,480, (state furnishing brick) $207,076; Reichelderfer Constr. Co., Circleville bituminous macadam, $215,925, brick (contractor furnishing brick), $279,584. (state furnishing brick) $206,723.

Fulton Co., Sect. "L-1" Archbold-Fayette Rd., 1.018 mi., grading, constructing bridges and culverts, C. M. Gray, Waterville, O., $26,314.

Geauga Co., Sect. "V-2," "W" Chagrin Falls-Greenville Rd., and Sect. "F" Warren-Burton Rd., 9.4 mi., grading, constructing bridges and culverts, Henderson Bros., Chagrin Falls, $74,806; W. M. Kuesecker, Youngstown, $80,931; A. H. Redy Co., Warren, $81,432.

Meigs Co., Sect. "O" Pomeroy-Athens Rd., 3.303 mi., grading, constructing bridges and culverts, Post Const. Co., Cleveland; J. Reibel, Pomeroy, both same bid of $91,763.

Sect. "O" Cambridge-Caldwell Rd., 4.748 mi., grading and constructing bridges and culverts, W. M. Gray, Columbus, $88,309; S. W. Wrightsel, Logan, $89,685; MacElfresh-Danford Co., Caldwell, $87,117.

Putnam Co., Sect. "A" Findlay-Delphos Rd., constructing concrete block floor and waterbound macadam approaches to bridge, Standard Eng. Co., Toledo, $2,546.

Noble Co., Sect. "N" Cambridge-Caldwell Rd., 3.594 mi., grading and constructing drainage structures, W. M. Gray, Columbus, $80,032; MacElfresh-Danford Co., Caldwell, $82,123; Jones Constr. Co., Salem, $82,536.

Lorain Co., Sect. "N" Twinsburg-Elyria Rd., constructing concrete superstructure to Hawke bridge, D. A. Richards, Lorain, $2,300; Schroeder & Laughlin, Lorain, $2,248. Noted Nov. 4.

★**O., Garfield Heights** (Cleveland P. O.)—Village let contract paving Christina Ave., asphalt, to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $20,296. Noted Nov. 11.

★**Ind., Valparaiso**—Comrs. Porter Co. let contract graveling 2.77 mi. R. M. Phillips Rd., Porter Twp., to Gary Constr. Co., Kouts, $35,127. Noted Oct. 28 under "Indiana."

★**Michigan**—State Highway Dept., Lansing, let contract grading and draining 7.592 mi. State Trunk Line Rd. 21-13, Sects. C and D, St. Clair Co., involving 27,379 cu. yd. earth excav., 528 lin. ft. tile culverts, 345 cu.yd. concrete in culverts, etc., to M. E. Hull, Dryden, $38,155; 6.065 mi. Sects. E and F, same project, 15,296 cu.yd. earth excav., 858 lin.ft. tile culverts, 445 cu.yd. concrete in culverts, etc., to H. Campbell & Son, Port Huron, $34,953; 6.145 mi. State Trunk Line Rd. 85-11, 16 ft. wide, Montcalm Co., 31,138 cu.yd. earth excav., at $0.70 per cu.yd., 1,536 yd. sta. overhaul, $0.03, 57,685 sq.yd. gravel surface, $0.74, 3,847 lb. steel reinforcement, $0.10, 374 lin.ft. 12 in., 263 lin.ft. 15 in. and 166 lin.ft. 18 in. encased tile culverts, $2, $2.50 and $3 respectively, 116.4 cu.yd. 1:2:4 and 95.1 cu.yd. 1:3:6 concrete, $30 and $27 respectively, etc. to Cook & Clark, 301 Donald Pl., Grand Rapids, $74,971; 4.997 mi. Federal Aid Project 33, Sect. D, 16 ft. wide, Alcona Co., 17,864 cu.yd. earth excav., $0.65, 46,901 sq.yd. gravel surface, $1.15, 4,533 lb. steel reinforcement, $[illegible] lin.ft. 12 in. and 269 lin.ft. 15 in. [illegible] tile culverts, $2.25 and $2.50 respe[illegible] 139.3 cu.yd. 1:2:4 and 151.7 cu.yd. [illegible] concrete, $24 each, etc., to W. [illegible] Whittemore, $75,558.

★**Wis., Superior**—Douglas Co. [illegible] tract graveling Black River Rd., [illegible] Bong, Poplar, $11,597; surfacing [illegible] Rd., to C. O. Lindquist and P. [illegible] Poplar, $11,280; graveling Lakeside [illegible] J. S. Groves & Son, Duluth, Minn., $[illegible]

★**Minn., Minneapolis**—City will [illegible] $1,500,000 for various kinds of [illegible] Work will be done by day labor under supervision of E. R. Dutton, asst. [illegible]

★**Kan., Wichita**—City let contract [illegible] Ohio Ave. from 8th to 9th Sts., Wabash Ave. from Douglas Ave. to 2d St., Vine St. from Douglas Ave. to 1st St., Vine St. from 1st to 2nd Sts., Morris St. from Pattie to Ida Aves., Waco Ave. from Douglas Ave. to Alley S, Seneca St. from Central Ave. to River Blvd., River Blvd. from Central to Buffuin Aves., Central Ave. from Madison to Gove Aves., and West 1st St. from Seneca to Vine Sts., involving 11,000 ft. street asphalt, asphaltic concrete and cement concrete, to Ritchie Bros. and C. B. Ramsey, Wichita. About $150,000.

★**Mo., St. Louis**—City let contract paving various streets involving 2,400 sq.yd. Warrenite-bitulithic pavement on 6 in. concrete base, to Granite Bituminous Paving Co., Ry. Exch. Bldg.

★**South Dakota**—State Highway Comn., Lake Andes, let contract building 4.257 mi. Lake Andes-Platte-Chamberlain Rd., Federal Aid Project 68, to Peterson, Shirley & Gunther, Omaha, Neb., $30,318. Noted Oct. 21.

★**South Dakota**—State Highway Comn. at div. office, in Turner Co., Parker, let contract gravel surfacing 16.7 mi. Parker-Centerville Rd., from Parker to Viborg, involving 1,886 cu.yd. common excav. and 30,449 cu.yd. gravel, etc., to W. P. Shipman Constr. Co., 209 Iowa Bldg., Sioux City, $98,749.

South Dakota—State Highway Comn. at office Comrs. Jerauld Co., Wessington Springs, received bids grading and draining 16.31 mi. Woonsocket-Wessington Springs-Gonn Valley Highway, Federal Aid Project 38, from D. D. Bidwell, Egan, $127,014; Peterson, Shirley & Gunther, Omaha, Neb., $127,063; Stevens Bros., St. Paul, Minn., $129,388. Above bids rejected. Noted Oct. 21.

South Dakota—State Highway Comn. at office of auditor Sanborn Co., Woonsocket, received bids Oct. 25, grading and draining 12.18 mi. Howard-Woonsocket-Wessington Springs Rd., Federal Aid Project 50, from Stevens Bros., Piedmont Bldg., St. Paul, Minn., $77,889; D. D. Bidwell, Egan, $85,011; W. R. Shipman Constr. Co., Iowa Bldg., Sioux City, Ia., $93,186. Above bids rejected. Noted Oct. 21.

★**Mont., Lewistown**—City let contract paving 10 block East Main St., concrete, to F. Saner Co., Great Falls, $71,890. Noted Oct. 21.

★**Missouri**—State Highway Dept., Jefferson City, let contracts to M. E. Gilliez, Monett, building 4.88 mi. Monett-Neosho Rd. (Monett Special Rd. Dist.), Federal Aid Project 121, Sect. A, Barry Co., involving 31,052 cu.yd. earth excav., at $0.55 per cu.yd., 2,318 cu.yd. borrow, $0.55, 45,916 sq.yd. gravel surface course, $0.40, 437.9 cu.yd. Class "B" and 10.2 cu.yd. Class "C" concrete masonry, $22 and $21 respectively, total cost $52,730; to W. J. Knorpp, De Soto, 2.58 mi. De Soto-Potosi Rd. from Jefferson Co. line southwestward, State Aid Project S 20.10, Washington Co., 11,403 cu.yd. earth and 2,262 cu.yd. rock excav., at $0.55 and $2 per cu.yd. respectively, 6,322 cu.yd. borrow, $0.40, 18,712 sq.yd. specification C gravel pavement, $0.30, 32.5 cu.yd. Class "B" and 43 cu. yd. Class "C" concrete masonry, $25 and $22.50 respectively, etc., total cost, $22,337. Noted Nov. 11.

★**Ark., Little Rock**—Comrs. Pulaski Co. let contract for 53,000 sq.yd. Warrenite-bitulithic pavement on concrete foundation to M. D. L. Cook, 315 Southern Trust Bldg. Noted Oct. 14.

★**Tex., Cameron**—Milam Co. let contract improving 8.769 mi. Highway 36, Temple Rd., to A. C. Buchanan & Son, Temple, $70,668; including 10% for engineering and contingencies. Noted Nov. 11.

★**Tex., Crowell**—Bd. Rd. Comrs. Foard Co. will improve 14.56 mi. Highway 4, from here to Foard City, 24 ft. wide, involving 51,000 lin.ft. grading, 208 lin.ft. 24-36 in. c.i. pipe, 32,723 lb. reinforcing steel, 81 cu.

Streets and Roads (Continued)

yd. concrete paving, 314.3 cu.yd. Class "A" and 37.02 cu.yd. Class "C" concrete, etc. Cost $23,781; including 10% for engineering and contingencies. Work will be done by day labor.

★**Tex., Dallas**—Dallas Co. let contract paving Dallas-Scyene Rd., 18 ft. wide, 3 in. gravel on 8 in. native crushed rock base, to Cullom & Harralson, Dallas, $120,884; building drainage structures on 9 mi. above road, to Hoard & Seguine, Dallas, $58,128. Noted June 3.

★**Tex., Dallas**—City let contract paving and guttering 1,500 ft. Ruskin St. from Oakhawn to Knight Sts., 30 ft. wide, bitulithic on 5 in. gravel concrete base, to Texas Bitulithic Co., Praetorian Bldg. About $25,000.

★**Tex., Ft. Worth**—City will pave Concho St., bitulithic. About $25,000. Work will be done by day labor.

★**Tex., Houston**—Harris Co. let contract improving 4 mi. Highway 2, Washington Rd., to Haden & Austin, 727 Kress Bldg., $41,734 (county to furnish gravel and steel, $20,314), total cost, $35,253; including 10% for engineering and contingencies. Noted Oct. 14.

Tex., San Marcos—J. R. Wilhelm, judge Hays Co., received bids Nov. 8, grading, surfacing and draining 17.05 mi. Austin-Fredericksburg Rd., from Hays Co., $58,322; H. F. Bland, San Augustine, $61,849; Brown & Root, Taylor, $86,870. Work involves 35.2 acres clearing and grubbing, 44,856 cu. yd. borrow, 28,304 cu. yd. earth, 1,774 cu. yd. loose and 498 cu. yd. solid rock excav., 72.5 cu.yd. 1:2:4, 166.5 cu.yd. 1:2:3½ and 90.5 cu.yd. 1:2:5 concrete, etc. Noted Oct. 28.

★**Utah, Tremonton**—City let contract paving various streets, involving 17,818 sq.yd. Warrenite bitulithic pavement on 6 in. concrete base, to Gibbons & Reed, Kearns Bldg., Salt Lake City.

★**Utah, Lehi**—City let contract curbing, guttering and paving 15,000 ft. Main St., 45 ft. wide, 7 in. plain cement concrete, to E. Smith, Lehi. About $16,100.

Nevada—State Highway Dept., Carson City, received bids building section of State Highway System from point 30.10 mi. southwest of St. Thomas to 16.79 mi. southwest of St. Thomas, Clark Co., from Armstrong & Baker, Reno, $86,372.

★**Ariz., Phoenix**—City let contract improving various streets involving 1,333 sq.yd. Warrenite-bitulithic pavement on 4 in. concrete foundation, to Warren Bros. Co., Phoenix.

★**Wash., Aberdeen**—City let contract grading, clearing, grubbing and installing cement culverts in Boone St., et al. to D. A. Williams, Bradley Rd. Pros Hill, Tacoma. About $63,000.

Ore., Klamath Falls—City let contract paving various streets, involving 10,767 sq. yd. Warrenite bitulithic pavement on 4 in. crushed rock foundation, to Warren Constr. Co., East Water and Salmon Sts., Portland.

★**Cal., Los Angeles**—City let contract improving various street, involving 10,982 sq. yd. Warrenite bitulithic on 5 in. concrete foundation, to Fairchild, Gilmore & Wilton, 610 South Main St.

★**Cal., Susanville**—City let contract improving various streets, involving 24,050 sq.yd. Warrenite bitulithic pavement on 3½ in. asphaltic concrete, to Warren Constr. Co., Journal Bldg., Portland, Ore.

Railways

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**New York**—Boston & Maine R.R., North Sta., Boston let contract improving freight yards, relaying tracks, etc., at Mechanicsville, to Wilson & English Co., 176 Federal St., Boston. About $20,000.

Excavation and Dredging

PROPOSED WORK

Miss., Batesville—Drainage—Yocona-Tallahatchie D. D. had preliminary plans prepared for levees and floodway channel 55 mi. long, to reclaim 2,500,000 acres overflow lands in Panola, Quitman, Tallahatchie and Le Flore Counties. About $9,000,000. F. Lang, Memphis, Tenn., chn. Elliot & Harman Engr. Co., 144 Fredonia St., Peoria, Ill., engrs.

Wis., Whasau—Ditch—Dancy D.D. having surveys made for 10 to 14 mi. open ditch in Marathon and Portage Counties. L. M. Schindler Appleton, consult. engr.

Ia., Ft. Dodge—Drainage—J. L. Hanrahan, aud. Webster Co., soon receives bids building D.D. 306, involving 24,100 lin.ft. 6-36 in. tile, cost $62,247, D.D. 247, 46,590 lin.ft. 6-48 in. tile, $120,890. J. L. Ransom, co. drainage engr.

Minn., Jackson—Ditches—Jackson Co. rejected bids Nov. 9, building Judicial Ditches 13 and 74, involving 12,000 ft. 6-16 in. tile and 61,800 ft. 6-30 in. tile respectively.

Minn., Moorhead—Clay Co. received no bids Oct. 2, building Co. Ditch 44, involving 24,144 cu.yd. excav., metal culverts of various sizes, 280 lin.ft. flood gates, 18 in. wide, 2 wooden bridges, one with 20 ft. roadway, 18 ft. span, and other 20 ft. roadway, 22 ft. span. About $26,279. Work will be readvertised in spring. R. H. Slocum, Fargo, N. D., engr.

Wyo., Casper—Drainage—City voted $50,000 bonds to build drainage ditches to divert water from overtaxed storm sewers. Noted Sept. 23.

Utah, Delta—Drainage—Millard Co. (Fillmore) voted $150,000 bonds to build D. D. 4. About $150,000. C. H. Day, co. clk. Caldwell & Richards, Vermont Bldg., Salt Lake City, engrs.

Utah, Hyrum—Irrigation—Dirs. of Paradise Irrigation Co. and Hyrum Irrigation Co. voted to consolidate under latter name and build reservoir storing water to irrigate 2,000 acres additional land. About $100,000. T. H. Humpherries, County Court House, Logan, engr.

Cal., Victorville—Irrigation—Victor Valley Irrigation Dist. having surveys made for irrigation system, involving 3 storage reservoirs, 1 hydro-electric power plant, main canal, distributing system and booster pumping plant. About $7,000,000. F. C. Finkle, 448 I. W. Hellman Bldg., Los Angeles, consult. engr.

Cal., Willows—Irrigation—Until Nov. 24, by Glenn-Colusa Irrigation Dist., building trash rack and fish screen at headworks of main canal, near Hamilton; 1 rein.-con. steel and timber headgate in main irrigation canal; dredging from headgates of main canal to Willow Creek Syphon; 2 rein.-con. steel and timber checkgates in main irrigation canal; rebuilding floodgate structures on main canal; rebuilding 3 drainage syphons under main canal. F. H. Tibbetts, Alaska Commercial Bldg., San Francisco, engr.

BIDS DESIRED

Minn., Granite Falls—Ditch—Until Nov. 23, by G. H. Wilson, aud. Yellow Medicine Co., building Co. Ditch 9, involving main ditch and 5 branches. Work involves 30 mi. open work, 1,489,435 cu.yd. excav., cost $167,973; 474,205 ft. 8-28 in. drain tile, one hundred and seventy 6-12 in. sewer pipe inlets with c.i. gates, 21 concrete bulkheads, etc., $315,208. J. Norgaard, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Adel**—Drainage—Dallas Co. let contract building DD 76, involving 35,694 ft. 6-28 in. tile, to Hawkeye Constr. Co., Webster City, $13,648, and Hoover Lumber Co., Dallas Center, $22,774. Noted Oct. 21.

★**Ia., Marengo**—Drainage—Iowa Co. let contract building D.D. 8, involving 457,600 cu.yd. excav., to L. and E. G. Sternberg, Marengo, $95,970. Noted Oct. 14.

★**Minn., Jackson**—Ditches—Jackson Co. let contract building Judicial Ditch 45, to J. W. Wilkin, Elmore, $78,544; Ditch 75, to A. Sanderson, Elmore, $70,496. Noted Nov. 4.

★**Kan., Troy**—Drainage—Doniphan Co. contract building DD. No. 2, to M. B. Wilson, Agency, Mo., $15,342.

★**Mont., Great Falls**—Irrigation—Cascade Co. let contract bulding Chestnut Valley Irrigation project, to F. Saner and F. Elliott, Great Falls. About $107,000.

Industrial Works

PROPOSED WORK

Me., Bangor—Bangor Chamber of Commerce Real Estate Associates, plan to build 3 story, brick and steel factory, on Summer St. Crowell & Lancaster, Exchange Bldg., archts.

Vt., Rutland—W. H. Williams, c/o G. F. Lamb, archt., Gryphon Bldg., plans to build 1 story, 70 x 130 ft. rein-con. and tile service station, on West St.

Mass., East Lee—C. Wurtzbach, representing owners, High St., Lee, plans to build electric power plant, along Housatonic River, here. Architect not selected.

Mass., Provincetown—Andrews, Tower & Lavalle, engrs. and archts., 274 Main St., Springfield, preparing plans for fish plant, at Cape Cod. About $300,000. Owners name withheld.

R. I., Providence—Federal Truck Sales Co., 276 West Exchange St., having revised plans prepared by C. H. Lockwood, archt., 171 Westminster St., and receives bids about Jan. 1, building 1 story, 100 x 330 ft., concrete, brick and steel service station, rein.-con. flooring, concrete foundation, on Reservoir Ave. About $125,000. Noted Jan. 29.

N. Y., New York—F. Savignano, archt. and engr., 6005 14th Ave., Brooklyn, preparing plans for 2 story, 75 x 190 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Bedford and Commerce Sts. About $75,000. Owner's name withheld.

N. J., Ridgefield—W. B. Wills, Inc., archts. and engrs., 1181 Myrtle Ave., Brooklyn, soon let contract building 2 story, 100 x 500 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Grand Ave., and Hall St., here, for Continental Folding Paper Box Co., 122 Washington St., Brooklyn.

Pa., Nanticoke—A. Freeman, archt. and engr., 29 West 34th St., New York City, soon lets contract building 3 story, 90 x 155 ft., rein.-con., brick and steel factory, here, rein.-con. flooring, concrete foundation, for Genl. Cigar Co., c/o architect. About $140,000.

Pa., Phila.—Chelton Co., 49th and Market Sts., having plans prepared by Ballinger & Perrot, archts., 329 South Broad St., for 1 story, 32 x 77 ft., concrete and brick warehouse.

Md., Baltimore—Baltimore Mfg. Co., controlled by Fleischmann Co., Perry and Plum Sts., Cincinnati, O., plans to build additions to plants on Buren and Monuments Sts., and Central Ave. and Bank St., here. About $1,000,000.

Ky., Louisville—Ford Motor Co., 2500 South 3rd St., plans to build 100 x 200 ft. addition to plant. About $500,000.

Ky., Louisville—International Harvester Co., 606 South Michigan Ave., Chicago, plans to build warehouse, here. About $500,000.

Ky., Louisville—Ten Broeck Tire Co., 840 South 26th St., plans to build addition to plant, on 26th and Courtney Sts. About $1,000,000.

O., Cleveland—Cleveland Coldrawn Steel Co., c/o W. W. Wallace, Natl. City Bldg., plans to build 1 story, 160 x 400 ft., brick and steel plant, brick foundation, on Dunham Rd. About $250,000. Private plans.

O., Cleveland—Frank Dry Cleaning Co., 1361 East 55th St., plans to build 2 story, 44 x 76 ft., rein.-con., brick and steel factory, rein.-con. flooring, brick and concrete foundation, at 6000 Bonna Ave. About $40,000. F. J. Coghlan, 709 Union Bldg., archt.

O., Dayton—Dicks-Pontius Co., South Wayne Ave., plans to build 5 story, 60 x 180 ft., rein.-con. warehouse, rein.-con. flooring, concrete foundation. About $85,000. Architect not selected.

O., Willoughby—Thor Tire & Rubber Co., c/o R. C. Gary, 802 Society for Savings Bldg., Cleveland, plans to build 1 and 3 story, 60 x 250 ft., rein.-con., brick and steel factory and power plant, rein.-con. flooring, brick and concrete foundation. About $300,000. Private plans.

Mich., Detroit—See "Buildings."

Mich., Mt. Clemens—Sauzedde Mfg. Corp., Evans and Rose Sts., having plans prepared by H. T. Millar, archt., Lightner Bldg., Detroit, for additional unit to plant, 2 story, brick and steel, brick foundation. About $75,000.

Ill., East St. Louis—T. J. Moss Tie Co., Security Bldg., St. Louis, plans to construct plant, to include 3 steel buildings, laying 6,700 ft. standard and 11,000 ft. narrow gage track, here. Contract for laying standard gage track let to Fruin-Colnon Constr. Co., Ry. Exch. Bldg., St.

Industrial Works (Continued)

Louis, narrow gage, to Terminal R.R. Union Station, St. Louis. Total cost. $100,000. J. S. Penney, c/o owner, engr. Noted Sept. 30.

Wis., Fond du Lac—Fond du Lac Paper Co., 298 Forest Ave., having plans prepared by F. Stepnoski, archt., 144 Marquette St., for 1 and 2 story, 100 x 300 ft., concrete factory, rein.-con. flooring, concrete foundation. Noted Oct. 28.

Wis., Granville—T. J. Moss Tie Co., Security Bldg., St. Louis, plans to construct plant, to include 3 steel buildings also lay 6,700 ft. standard and 11,000 ft. narrow gage track, here. Contract for standard gage track let to Fruin-Colnon Constr. Co. Ry. Exch. Bldg., St. Louis. Total cost $100,000. J. S. Penney, c/o owner, engr.

Wis., Racine—Grant Farniture Co., 502 6th St., having plans prepared by D. R. Davis, archt., Schulz Bldg., for 3 story, 80 x 120 ft. factory and warehouse, rein.-con., brick and steel. About $150,000.

Minn., Owatonna—City having plans prepared by Toltz, King & Day, engrs., 1410 Pioneer Bldg., St. Paul, for electric light and power plant. About $475,000. C. J. Servatins, clk.

Kan., Atchison—A. J. Harwi Hardware Co., 9th and Commercial Sts., having plans prepared by W. Sayler & Co., archts., 360 Mutual Bldg., Kansas City, Mo., for 5 story, 75 x 150 ft., brick, stone and rein.-con. warehouse, rein.-con. flooring, brick and concrete foundation. About $150,000.

Kan., Belleville—Chicago, Rock Island & Pacific Ry., 139 Van Buren St., Chicago, Ill., having plans prepared by A. T. Hawk, archt., care owner, for 1 story, 32 x 80 ft. ice house, rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $80,000.

S. D., Watertown—South Dakota Packing & Shipping Co. receives bids in spring building 4 story, rein.-con., packing house, to contain 80,000 cu. ft. floor space. About $300,000. F. R. Hewett, pres.

Mo., St. Louis—Smith & Davis Mfg. Co., 1925 Locust St., plans to build furniture factory, brick and concrete, on Goodfellow Ave. About $1,000,000. Architect not selected.

Tex., Waxahachie—City plans election soon to vote on $100,000 bonds to build electric lighting plant.

Wash., Seattle—Auto Freight Depot, Inc., 71 Marion St., plans to build 2 story, 83 x 145 ft. brick freight depot, at 86 Dearborn St. About $60,000. W. H. Milner, Haight Bldg., archt.

N. B., Glen Falls—Clarke Bros. Ltd., Bear River, plan to build plant here, for the manufacture of fibre shipping cases. About $50,000. Private plans.

Que., Montreal—Royal Duke Refining Co., 157 St. James St., plans to build plant at Montreal East. About $200,000.

BIDS DESIRED

Me., Old Town—Bangor Ry. & Electric Co., 90 Harlow St., Bangor, receiving bids building 2 story, 70 x 75 ft., concrete, brick and steel sub and pumping station, rein.-con. flooring, concrete foundation. Crowell & Lancaster, Exch. Bldg., Bangor, archts. Noted Nov. 11.

Mass., Charlestown (Boston P. O.)—Charlestown Gas & Electric Co., 27 Main St., receiving bids building 1 story, 50 x 50 ft. concrete and brick sub station, rein.-con. flooring, concrete foundation, on Salem St., French & Hubbard, 88 Pearl St., Boston, archts.

N. J., Woodstown—South Jersey Farmers Exch. receiving bids building 1 story, 50 x 150 ft. storage station, concrete and brick. Stearns & Woodnut, 21 South 12th St., Phila., archts.

O., Cleveland—Belmore Co., Society for Savings Bldg., receiving bids constructing 2 story, 75 x 150 ft., brick and steel garage and commercial building, brick foundation, at 731 Vincent St. About $50,000. A. Garfield, Natl. City Bldg., archt.

Ill., Chicago—R. F. Schmid & Co., archts., 154 West Randolph St., receiving bids constructing two 1 story, 100 x 125 ft., brick and mill construction industrial buildings, concrete foundations, on 33rd St. and Normal Ave., for J. Burke, c/o architects. Cost, $100,000 each.

Wis., Marshfield—Until Nov. 30, by city, building 1 story, 40 x 40 ft., concrete and brick, addition to boiler house, concrete flooring and foundation. Cahill & Douglas, 217 West Water St., Milwaukee, engrs. Noted Aug. 19.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Boston Herald, 171 Tremont St., let contract building 4 story, concrete, brick and steel, addition to plant, rein.-con. flooring, concrete foundation, on Avery St., to Gascoigne & Linenthal Inc., 43 Tremont St. About $125,000.

★**Mass., New Bedford**—Motor Sales Co., 514 Pleasant St., let contract building 2 story, brick and concrete service station, on Purchase St., on M. & A. I. Rudnick, 40 Court St., Boston. About $100,000. Noted July 22.

★**Mass., Somerset**—Somerset Stove Fdry. Co. let contract building 1 story, 70 x 160 ft. brick and steel foundry, rein.-con. flooring, concrete foundation, to Beattie & Coanell, 33 North Quarry St., Fall River. About $50,000.

★**R. I., Providence**—Narragansett Electric Light Co., South St., will construct 5 story, brick and steel storage building, on Melrose St. About $75,000. Work will be done by day labor.

★**N. Y., Brooklyn**—J. Santinima, 62nd St. and 17th Ave., will build 20 x 20 ft. storage, 35 x 40 ft. factory and two 15 x 40 ft. sheds, all 1 story, brick and steel, concrete foundation. About $85,000. Work will be done by day labor.

★**N. Y., Hadley**—Nu Era Paper Co. let contract, altering and building brick and steel addition to machine shop, rein.-con. flooring, concrete foundation, also housing facilities, to H. P. Cummings Constr. Co., 14 Prospect St., Ware, Mass. About $100,000 and $50,000 respectively.

★**N. Y., Long Island City**—J. H. Rhodes Co., 115 Fulton St., let contract building abrasives and polishing material factory, rein.-con. and steel, rein.-con. flooring, concrete foundation, to Guarantee Constr. Co., 140 Cedar St., New York City. About $200,000.

★**N. Y., Long Island City**—Tricomi Constr. Co. (Inc.), 987 Boulevard, will build 2 story, 70 x 100 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Webster Ave. and Academy St. About $50,000. Work will be done by day labor.

★**N. Y., New York**—Ferncliffe Garage, Inc., c/o Deltose & Cavalieri, archts., 370 East 149th St., will build 1 story, 121 x 123 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 3rd Ave. near Franklin St. About $75,000. Work will be done by day labor.

N. Y., New York—G. A. Whalen, Comr. Plant & Structures, Municipal Bldg., received bids Nov. 11, constructing housing stations, on (a) Canal, West and Spring Sts., (b) 17th St. and Ave. C, (c) Rivington, Tompkins and Mangin Sts., from J. Fallon, 225 5th Ave., (a) $91,325, (b) $89,953, (c) $138,392; M. F. Kelley, 51 East 42d St., (a) $93,990, (b) $110,490; Lustic & Weil, 103 Park Ave., (c) $125,100; W. W. Constr. Co., 51 East 42d St., (a) $96,422; G. Colon, 81 East 125th St., (c) $138,850; F. Willetts, 2312 Prospect Ave., (b) $88,700. Noted Nov. 4.

★**N. Y., New York**—Marcus & Goldstein, 175 East 96th St., will build 1 story, brick and steel garage, rein.-con. flooring, concrete foundation on 173d St. and West Farms Rd. About $50,000. Work will be done by day labor.

★**N. Y., New York**—J. E. Sheehey, 256 Bway., will build 1 story, 100 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Southern Blvd. and 172d St., Bronx. About $40,000. Work will be done by day labor.

★**N. Y., New York**—Vesey Holding Co., 160 Bway., will build 4 story, 150 x 200 ft., rein.-con. and steel garage, rein.-con. flooring, concrete foundation, at 254 West 54th St. About $100,000. Work will be done by day labor.

★**N. Y., New York**—H. F. Ward & Bros., 518 West 38th St., will build 6 story, 35 x 100 ft., brick and steel warehouse, rein.-con. flooring, concrete foundation. About $60,000. Work will be done by day labor.

★**N. Y., Utica**—Utica Steam & Mohawk Valley Cotton Mills, 801 State St., let contract building rein.-con. and steel extension to boiler plant, rein.-con. flooring, con foundation, to Stone & Webster, 120 New York City. About $350,000.

★**Pa., Johnstown**—Johnstown San Dairy Co. will build 3 story, brick steel factory, brick foundation, on Son St. Cost between $50,000 and $6 Work will be done by day labor. N Oct. 7.

★**Pa., Phila.**—Belmont Packing & ber Co., 133 North 2d St., let con building 2 story, 130 x 190 ft. addition factory, brick on Coral and Wheatsi Sts., to G. Kessler Constr. Co., Drexel About $60,000.

★**Pa., Phila.**—L. Rosenau Co., Darien Noble Sts., let contract building 2 st 65 x 130 ft., braid factory, brick, at North 8th St., to C. Grindrod, Fran Bldg. About $45,000.

★**Md., Baltimore**—Horn Ice Cream 44 Aisquith St., let contract building concrete and steel plant, concrete foundati on Low and Aisquith Sts., to Consolidat Eng. Co., 243 Calvert Bldg. About $300,00 Noted Oct. 28.

★**La., New Orleans**—Linde Air Product Co., 30 East 42nd St., New York City, wi build 1 story, 125 x 125 ft. rein.-con. an steel factory, rein.-con. flooring, concre foundation, here. About $300,000. Wor will be done by day labor.

★**O., Cincinnati**—Williamson Heater C West 5th St., let contract building 1 stor 60 x 120 ft., brick and steel factory, bric foundation, to H. K. Ferguson Co., Vicker Bldg. About $40,000.

★**O., Cleveland Heights** (Warrensville P O.)—City Ice Delivery Co., East 20th S and Euclid Ave., let contract building story, 66 x 84 ft., tank and engine room rein.-con., brick and steel, rein.-con. floor ing, brick and concrete foundation, o Cedar Ave. and Lee Rd., to Younger & Farmer, 1670 Crawford Rd., Cleveland About $75,000. Noted Sept. 23.

★**O., Conneaut**—See "Buildings."

★**O., Elyria**—Lakeshore Rubber Co., c/o H. L. Miller, Natl. City Bldg., Cleveland, let contract building 2 story, rein.-con., brick and steel factory, rein.-con. flooring, brick and concrete foundation, to Donnelly Constr. Co., Lorain. About $150,000 Noted April 22.

★**O., Sandusky**—Mathews Eng. Co., Monroe and King Sts., let contract building 1 story, 100 x 150 ft., brick and steel factory, brick foundation, to H. K. Ferguson Co., Vickers Bldg., Cleveland. About $75,000.

★**Ill., Chicago**—J. Burke, c/o R. G. Schmid & Co., archt., 154 West Randolph St., let contract constructing 1 story, 100 x 125 ft. brick and mill construction industrial building, concrete foundation, on 33rd St. and Normal Ave., to A. Anderson, 19 South La Salle St. About $100,000.

★**Ill., Chicago**—Burns Craft Co., Como Bldg., let contract building 1 story, 100x124 ft., concrete and brick factory, concrete foundation, at 2225-39 Hurden St. About $55,000. A. Jacobs, 138 North La Salle St. archt.

★**Ill., Chicago**—J. Klicha, West 20th St. and South California Ave., let contract building 85 x 125 ft. furniture factory, 18 x 38 ft. engine house, 32 x 47 ft. boiler house and 13 x 32 ft. oil house, all 1 story, mill construction, concrete foundations, to Stellwagen & Co., 1583 Clybourne Ave., Chicago. About $100,000.

★**Wis., Jefferson**—Jefferson Rubber Co. care C. Girton, will build 1 story, 80x300 ft., brick and mill construction factory, concrete flooring and foundation. Work will be done by day labor. Noted Oct. 21.

★**Wis., Milwaukee**—Hercules Knitting Co., 1097 Greenbush St., let contract building 1 story, 30x40 ft. and 30x80 ft. brick and mill construction, addition to factory, concrete flooring and foundation, to Kroening Constr. Co., Majestic Bldg. About $45,000.

★**Wis., Milwaukee**—Nackie Paper Co. 268 East Water St., let contract building story, 95x120 ft., rein.-con. and brick warehouse, rein.-con. flooring, concrete foundation, on Jefferson St., to Immel Constr. Co. 200 Main St., Fond du Lac. About $125,000.

★**Tex., Corpus Christi**—W. A. Chamber will build oil refinery, to have daily c pacity 1,500 bbl. About $100,000. Wor will be done by day labor.

BRIDGE—CHICAGO, ILL.

Bids were received by Sanitary Dist. of Chicago, Nov. 4th, for constructing substructure and superstructure of bascule bridge across main channel on California Ave., (1) Strauss bascule bridge with counterweight pits, (2) without counterweight pits, (3) Scherzer rolling lift bridge from (A) Green & Sons Co., 332 South Michigan Ave.; (B) Ketler-Elliott Co., 155 North Branch St. The unit bids were as follows:

				A		B		
(1)	(2)	(3)		(1)	(2)	(1)	(2)	(3)
140 lin.ft.	140 lin.ft.	140 lin.ft.	Removal of existing dock	$9.00	$9.45	$9.00	$9.45	$9.45
220 lin.ft.	220 lin.ft.	220 lin.ft.	Construction of new steel and concrete dock	265.00	278.25	265.00	278.25	278.25
170 lin.ft.	170 lin.ft.	170 lin.ft.	Construction of new pile and timber dock	85.00	89.25	85.00	89.25	89.25
15,100 cu.yd.	15,100 cu.yd.	15,000 cu.yd.	Excavation above elevation—30	6.75	7.50	6.75	7.50	7.50
500 cu.yd.	500 cu.yd.	500 cu.yd.	Excavation below elevation—30	7.50	10.00	7.50	10.00	10.00
2,500 lin.ft.	2,500 lin.ft.	2,500 lin.ft.	Piles furnished and delivered	40	45	40	45	45
2,000 lin.ft.	2,000 lin.ft.	2,000 lin.ft.	Piles driven	75	85	75	85	85
10,000 ft.b.m.	10,000 ft.b.m.	10,000 ft.b.m.	Sheeting and bracing	175.00	180.00	175.00	180.00	180.00
1,300 cu.yd.	590 cu.yd.	200 cu.yd.	Class A concrete	37.50	40.00	37.50	40.00	40.00
3,100 cu.yd.	3,310 cu.yd.	4,000 cu.yd.	Class B concrete	30.00	35.00	30.00	35.00	30.00
100 cu.yd.	100 cu.yd.	100 cu.yd.	Class C concrete	30.00	30.00	30.00	30.00	30.00
2,300 cu.ft.	500 cu.ft.	500 cu.ft.	Cement mortar	1.25	1.25	1.25	1.25	1.25
146,000 lb.	120,000 lb.	112,000 lb.	Reinforcing metal in substructure	.08	.09	.08	.09	.09
145 lin.ft.	145 lin.ft.	145 lin.ft.	Concrete railing	18.00	20.00	18.00	20.00	20.00
4,000 sq.ft.	4,000 sq.ft.	4,000 sq.ft.	Sidewalk wearing surface	35	30	35	30	30
Cofferdams or caissons, etc. (lump sum)				217,750.00	265,000.00	210,250.00	255,000.00	240,000.00
Engineer's office (lump sum)				1,500.00	1,750.00	1,500.00	1,750.00	1,750.00
Extended totals for substructure				$567,595	$650,951	$535,245	$615,311	$587,390
Plans and royalties (lump sum)				$57,000.00	$57,000.00	$57,000.00	$57,000.00	$57,000.00
Bridge superstructure (lump sum)				489,000.00	540,000.00	563,000.00	607,000.00	519,000.00
37,000 lbs./37,000 lbs./75,000 lbs. reinforcing metal in superstructure				.10	.10	.10	.10	.10
Add for additional heel lock equipment and movable barriers				16,000.00				16,000.00
Additional structural steel (per pound)				.10	.10	.10	.10	.10
Additional machinery steel and iron (per pound)				.42	.42	.42	.42	.42
Additional steel castings (per pound)				.24	.24	.24	.24	.24
Additional iron castings (per pound)				.20	.20	.20	.20	.20
Additional bronze and babbitt metal (per pound)				.60	.60	.60	.60	.60
Additional creosoted timber and lumber (per 1,000 ft.b.m.)				240.00	240.00	240.00	240.00	240.00
Additional counterweight metal (per pound)				.04	.04	.04	.04	.04
Extended totals for superstructure				$553,500	$604,500	$623,700	$667,700	$595,700
Extended grand totals				$1,127,095	$1,255,450	$1,158,945	$1,283,011	$1,183,091

* Items 21 to 25, inclusive for additional material are not considered in comparison of proposals

Buildings

PROPOSED WORK

Vt., Ludlow—Hotel—Ludlow Hotel, Main St., plans to build concrete, brick and steel addition, rein.-con. flooring, concrete foundation. About $100,000. A. H. Smith, Gryphon Bldg., Rutland, archt.

Vt., Pittsford—Hospital—State Tuberculosis Assn. having plans prepared by Scopes & Feustman, archts., 64 Main St., Saranac Lake, N. Y., for 1 story, brick and frame. About $75,000. T. Wagner, pres.

Mass., Cambridge—Memorial—City plans to build memorial auditorium. About $300,000. Architect not selected.

Mass., Cambridge—Store and Office—Holmes Realty Co., Central Sq., plans to rebuild store and office building. About $75,000. Architect not selected.

Mass., Dedham—Business—Knights of Columbus plan to build brick and steel, on Washington and High Sts. About $75,000. Architect not selected.

Mass., Holyoke—Home—Holyoke City Hospital, Beech St., had plans prepared by G. P. Alderman & Co., archts., Peoples Savings Bank Bldg., for 3 or 4 story, brick and steel. Cost between $100,000 and $150,000. Project will mature in spring. Noted June 3.

Mass., New Bedford—School—St. Anthony Roman Catholic Church, 1357 Acushnut Ave., plans to build 2 story, brick and steel, rein.-con. flooring, concrete foundation, on Bowditch St. About $100,000. W. F. Fontaine, 285 Main St., Woonsocket, R. I., archt.

Mass., Quincy—Church—Bethany Congregational Church, 118 Presidents Lane, plans to build 1 story, brick and steel. About $75,000. Architect not selected.

Mass., Salem—Hospital—C. Grove, c/o Haven & Hoyt, archts., 220 Devonshire St., Boston, plans to build children's hospital, on Derby Ave., here.

Mass., South Hadley—Dormitory—Mt. Holyoke College had plans prepared by Brainer & Leeds, archts., 89 Franklin St., Boston, for 3 story, concrete, brick and stone, rein.-con. flooring, concrete foundation, on campus. About $500,000.

Mass., Springfield—Club—Y. M. and Y. W. H. A. plan to build clubhouse. About $75,000. H. Adaskin, 234 Main St., pres. Architect not selected.

Mass., Springfield—Theatre—Goldstein Bros. Co., Bridge St., plans to build 1 and 2 story, brick and steel, on State St. About $125,000. Architect not announced.

R. I., Woonsocket—Church—Notre Dame Roman Catholic Church, 253 Social St., plans to build 1 story, brick and steel. About $125,000. Architect not selected.

Conn., Bridgeport—Bank—Commercial Bank & Trust Co., 1334 Main St., plans to build concrete, brick and steel, on Main St. near Congress St. About $100,000. Architect not selected.

Conn., Bridgeport—Club—Fraternal Order of Eagles, 1580 Main St., plans to build concrete, brick and steel, on Main St. near East Washington Ave. About $100,000. Architect not selected.

Conn., Fairfield—Hall—Town plans to build 2 story, brick and steel, on Post Rd. About $100,000. Architect not announced.

Conn., Hartford—Office—Aetna Life Insurance Co., 650 Main St., plans to build concrete, brick and steel (probably 30 story), on Trumbull St. Architect not announced.

Conn., Hartford—Office—Orient Insurance Co., 20 Trinity St., plans to build 6 story, 42 x 100 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Clinton St. About $200,000. W. F. Brooks, Lewis and Gold Sts., archt.

Conn., Hartford—School—City plans to build 2 story, 82 x 140 ft. open air school, concrete, brick and steel, concrete foundation, at Colts Park. About $175,000. Whiton & McMahon, 36 Pearl St., archt. Noted Sept. 30.

Conn., New Britain—Bank—Commercial Trust Co., 274 Main St. soon receives bids building 6 story, brick and stone, on West Main and Washington Sts. About $200,000. A. Hopkins, 101 Park Ave., New York City, archt. and engr. Noted Nov. 4.

Conn., New Britain—Club—Knights of Columbus, 434 Main St., had plans prepared by Palmer & Ludorf, archts., Mutual Bldg., for 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Franklin Sq. and Pearl St. About $200,000.

Conn., West Haven (New Haven P. O.)—School—Union School Dist. town of Orange, had plans prepared by R. W. Foote, archt., 185 Church St., New Haven, for 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation. Cost between $350,000 and $400,000. Noted Jan. 1.

N. Y., Middletown—Hospital—State Hospital Comn., Capitol, Albany, soon receives bids building chronic hospital, here, 3 story, 44 x 320 ft., with three 37 x 76 ft. wings, rein.-con. concrete foundation. About $4,000,000. Noted April 15.

N. Y., New York—Clubhouse—Friendly Aid Society, 246 West 34th St., receives bids about Jan. 2, building 3 story, 50 x 60 x 70 ft., brick and stone, brick foundation, at 599 1st Ave. About $90,000. A. J. Hemphill, pres. F. P. Kelley, 477 5th Ave., archt. and engr.

N. Y., New York—Office—J. G. Johnson, Cliff St., having plans prepared by Ballinger & Perrott, archts. and engrs., 47 West 34th St., for 2 story, brick and stone, brick foundation, on Charlton St. About $100,000.

N. Y., Oswego—High School—Bd. Educ. receives bids in spring building 3 story, 200 x 264 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Utica St. About $450,000. J. A. Randall, S. A. & K. Bldg., Syracuse, archt. and engr.

N. J., Montclair—Church—Central Presbyterian Church, 53 Church St., having sketches made by Carrere & Hastings, archts. and engrs., 52 Vanderbilt Ave., New York City, for brick and stone, brick foundation, on Park St. About $100,000.

N. J., Trenton—Church—St. James Catholic Church plans to build new church. About $75,000. Address T. J. Walsh, 153 North Warren St. Architect not selected.

N. J., Trenton—Church and Sunday School—F. E. Tormey, archt., 813 Newington Ave., Baltimore, preparing plans and soon receives bids building 3 story, 55 x 119 ft. steel and stone, rock foundation, for Blessed Sacrament Church. About $125,000. Noted Oct. 21.

N. J., Trenton—Office—W. Hankin, archt., 241 South Warren St., opens bids about Nov. 28, building 8 story, 97 x 193 ft., rein.-con., brick and terra cotta, on East State St., for R. C. Maxwel Co., 413 East State St.

Pa., Dormont (Pittsburgh P. O.)—High School—Boro. voted $305,000 bonds to build new high school. A. C. Downs, secy. Boro. High School.

Pa., Reading—Comfort Stations, etc.—City voted $1,940,000 bonds to build comfort stations, house and storm sewers and to pave various streets.

Pa., Reading—Theatre and Office—Willmer & Vincent, Columbia Theatre, New York City, having plans prepared by Hoffman-Henon, archts., Finance Bldg., Phila., for 6 story, 150 x 160 ft., concrete and brick, on 10th and Penn Sts., here. About $500,000.

Md., Baltimore—Hospital—State having plans prepared by Sill, Buckler & Fenhagen, archts., 11 East Pleasant St., for group of brick and stone hospital buildings for colored consumptives, 18 mi. from here. About $200,000.

Buildings (Continued)

Md., Baltimore—Theatre—Amer. Theatre Co. 339 Equitable Bldg., having plans prepared by E. G. Blanke, archt., 532 North Calvert St., for 1 and 2 story, brick and stone, concrete foundation, on Boulevard near 33rd St. and Greenway. About $200,000.

W. Va., Clarksburg—Hotel—W. P. and G. D. Goff plan to reconstruct hotel here, now containing 156 rooms, also add addition of 150 rooms and large auditorium. Architect not selected.

W. Va., Huntington—Store—O. L. Stanard Dry Goods Co., plans to build 7 story, rein.-con. steel, brick and concrete, to contain 7,000 ft. floor space. About $100,000. Architect not selected.

W. Va., White Sulphur Springs—Bank—White Sulphur Springs Bank having plans prepared by Simon, Brittain & English, archts., Magee Bldg., Pittsburgh, Pa., for 2 story, 40 x 60 ft., concrete, brick and steel, rein.-con. flooring. Cost between $75,000 and $85,000.

Fla., Tampa—Clubhouse—Sacred Heart Church plans campaign to raise $100,000 for 4 story, 53 x 114 ft., rein.-con. and brick, rein.-con. flooring, on Marion and Madison Sts. J. E. Farrell, Marion and Twigg Sts., pastor. Architect not selected.

Fla., Tampa—Hospital—Florida Baptists, c/o C. W. Duke, 109 Cardy St., plan to build hospital. About $500,000.

Tenn., Memphis—Home Salvation Army having plans prepared by J. Bliss, archt., 56 North 2d St., for 4 story, rein.-con. and brick, on North 2d St. About $100,000. W. Yager, adjutant.

Ky., Louisville—Church—First Presbyterian Church, 4th and York Sts., plans to build church at 1st and Armsly Sts. About $100,000.

Ky., Louisville—Temple—Labor Union, 324 West Jefferson St., plans to build labor temple. About $350,000.

Ky., Louisville—University and Memorial—State defeated $1,000,000 bond issue for university and $500,000 bond issue for memorial building. Project will be submitted again to people at next regular election, Nov. 8, 1921. Noted May 13.

O., Bloomville—School—Bd. Educ. having plans prepared by Glass & Austin, archts., Casco Bldg., Columbus, for 2 story, 80 x 111 ft., brick and concrete. About $140,000. J. P. Webster, clk.

O., Cleveland—Church—Garfield Blvd., Church of God, c/o W. Honeywell, 10514 Kimberly Ave., plans to build 1 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $75,000. Architect not selected.

O., Cleveland—Church—St. Joseph's Roman Catholic Church, 14422 Aspinwall Ave., having revised plans prepared by C. R. Greco, archt., Guardian Bldg., for 2 story, 84 x 157 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 146th St. and St. Clair Ave. About $150,000. J. W. Bell pastor. Noted Aug. 19.

O., Cleveland—Commercial—W. Ambler, The Arcade, plans to build 3 story, concrete, brick and steel, rein.-con. flooring, brick and concrete foundation, on Prospect Ave., near East 22nd St. About $100,000. Architect not selected.

O., Cleveland—Commercial—G. Bowman, c/o N. Bowman, 224 Euclid Ave., plans to alter 2 story, brick and steel, at 221 Euclid Ave. About $75,000. A. Garfield, Natl. City Bldg., archt.

O., Cleveland—Commercial—W. J. Delaney, 1112 Crawford Rd., receiving bids building 1 story, 60 x 140 ft., brick and steel, brick foundation, on Euclid Ave. and Collamer Rd. About $75,000. F. S. Fish, 6508 Euclid Ave., archt.

O., Cleveland—Commercial, etc.—Hayden Investment Co., c/o Kangesser, Park Bldg., purchased site and plans to construct 5 story, 80 x 210 ft., commercial building and garage, rein.-con. brick and steel, rein.-con. flooring, brick and concrete foundation on East 30th St. and Prospect Ave. About $400,000. J. L. Weinberg, Schofield Bldg., archt.

O., Cleveland—Hotel—S. S. Koslen, 1077 East 97th St., plans to build 7 story, 69 x 190 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Euclid Ave. About $500,000. Architect's name withheld.

O., Cleveland—Restaurant and Commercial—Oriental Amer. Bldg. Co., c/o Allen-Osborne Co., archts., Rose Bldg., plans to build 5 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 1618 Euclid Ave. About $200,000.

O., Columbus—Church—First Universalist Church, 24 West Goodall St., having sketches made by Mills & Millspaugh, archts., 67 East Long St., for church on 16th Ave. About $125,000. C. A. Alden, pastor.

O., Dayton—Clubhouse and Lodge—Knights of Columbus, Council 500, 27 West Monument Ave., plan to build 2 story addition, including ballrooms, dining room, bowling alleys, gymnasium, etc., rein.-con., brick and steel, concrete foundation. About $100,000. B. Danis, c/o Danis-Hunt Co., 1st and Webb Sts., archt.

O., Dayton—High School—Bd. Educ. plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Summit St. About $750,000. Schenk & Williams, Mutual Home Bldg., archts.

O., Dayton—Hospital—Association of Jewish Congregations, North Jefferson St., plan to build 4 story, rein.-con. and brick, concrete foundation, on Forest Ave. About $400,000. S. Meyerberg, chn. Architect not selected.

O., Dayton—Office and Store—West Side Bldg. & Loan Assn., 1100 West 3rd St., plans to build 5 story, 98 x 165 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on 3rd St. and Bway. About $175,000. Architect not selected.

O., Ravenna—Theatre—K. S. Sweitzer having plans prepared by Frank & Wagner, archts., 602 Permanent Title & Trust Bldg., Akron, for 3 story. About $100,000.

O., Springfield—Gymnasium and Auditorium—Wittenberg College, College Hill, plans to build 3 story, steel, concrete and stone. About $500,000. C. Huckert, pres. Architect not selected.

O., Warren—Fire Station—City plans to build 2 story fire station on West Side. About $80,000.

O., Youngstown—Bank and Office—Central Bank & Trust Co., Central Sq., plans to build 12 story, 40 x 180 ft., brick and terra cotta concrete flooring and foundation. About $1,500,000.

O., Youngstown—Church—First Reformed Church, 117 West Wood St., plans to build 2 story, 200 x 225 ft., brick and terra cotta, on Wick Ave., to include auditorium, several classrooms, etc. About $125,000. F. Mayer, pastor.

O., Youngstown—Hotel—F. E. Skelly, 17 South Champion St., plans to build 4 story, 100 room, 150 x 175 ft., at Lake Milton. About $110,000.

O., Youngstown—Lodge—Masonic Temple Co., Wick Ave., plans to build 6 story, 70 x 200 ft. addition. About $850,000. C. Owsley, 1301 Mahoning Bank Bldg., will probably be selected as archt.

Ind., Evansville—College—Evansville College receives bids in December or January, building 3 story, 66 x 174 ft., college, on Lincoln Ave. About $400,000. Fullenwider & Dowling, 6 North Michigan Ave., Chicago, archts.

Ind., Hammond—Temple—R. G. Schmid & Co., archts., 154 West Randolph St., opens bids about Dec. 20, building 1 story, 100 x 100 ft., brick and terra cotta, brick and concrete foundation, for Masonic League. About $250,000.

Mich., Detroit—Hotel—Brown & Preston, archts. and engrs., Empire Bldg., preparing preliminary plans for 3 story, 76 x 160 ft., rein.-con., steel, stone and tile, rein.-con. flooring, concrete foundation. About $120,000. Owner's name withheld.

Mich., Detroit—School—St. Thomas Parish having plans prepared by Van Leyen, Schilling, Keough & Reynolds, archts., 556 Cass Ave., for 2 story, 64 x 98 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Thomas Ave., to include 34 x 48 ft. heating plant. About $175,000.

Mich., Detroit—Synagogue—H. Kohner and A. J. Seeler, archts., Kresge Bldg., preparing plans for 1 story, 40 x 109 ft., brick, steel and stone, brick foundation, East side. About $85,000. Owner's name withheld.

Mich., Detroit—Theatre and Office—Northwestern Bldg. Corp., 2063 West Grand Blvd., plans to build 2 story, (3,500 seating capacity) rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Grand River Ave. About $2,000,000. C. W. and G. L. Rapp, 190 North State St., Chicago, archts.

Mich., Detroit—Y. W. C. A., Washington and Clifford Sts., plans to construct 3 story administration building, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on East Kirby Ave. About $200,000. C. R. Wilson, pres. Bd. Mgrs. Architect's name withheld.

Mich., Ironwood—Municipal—City plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. Bonds for $300,000 voted for project. Architect not selected.

Mich., Jackson—School—Polish Catholic Parish having plans prepared by Donaldson & Meier, archts., 1314 Penobscot Bldg., Detroit, for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here. About $150,000.

Mich., Monroe—School—Bd. Educ. having plans prepared by W. S. Holmes, archt., Lansing, for 2 story, 60 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $170,000.

Mich., Saginaw—School—Bd. Educ. having plans prepared by Cowles & Mutscheller, archts., Chase Blk., for 3 story, 173 x 282 ft., rein.-con., brick, steel and stone, rein.-con., flooring, concrete foundation, on Weadock and Park Sts. About $1,000,000.

Ill., Chicago—Church and Community Houses—Pilgrim Congregational Church, 64th St. and Harvard Ave., plans to build 2 story, 100x122 ft., rein.-con., brick and steel, concrete foundation. About $500,000. C. B. Falkner, 140 South Dearborn St., archt.

Ill., Chicago—Church and Office—First Methodist Episcopal Church, 77 West Washington St., having preliminary plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., for 20 story, 80 x 180 ft., rein.-con., on Washington and Clark Sts. About $2,000,000.

Ill., Chicago—Home—Oak Haven Old Peoples Home Co., 64th St. and Stewart Ave., plans to build two 2 story, 32 x 100 ft., rein.-con. and brick additions, concrete and rock foundations, in Oak Haven Park. Cost, $75,000 each. C. B. Falkner, 140 South Dearborn St., archt.

Ill., Chicago—Hotel—B. H. Rosen, 4854 North Irving Ave., plans to build Farewell Beach Hotel, 5 story, 100x130 ft., rein.-con., rein.-con. flooring, concrete foundation, in Rogers Park. About $350,000. R. C. Harris, 190 North State St., archt.

Ill., Winnebago—School—Bd. Educ. Consolidated Dist. 124 plans to build 2 story, 86 x 129 ft., brick. About $125,000. E. A. Payne, Carthage, archt.

Wis., Fond du Lac—Lodge and Office—Loyal Order of Moose having plans prepared by B. E. Mehner, archt., Forest Ave., for 6 story, 80 x 92 ft., rein.-con., brick, steel, stone and tile, concrete foundation, on Main St. About $150,000. W. S. Dyhr, dictator.

Wis., Kenosha—Clubhouse—German-Amer. Home Assn., 821 Newell St., plans to build 3 story, brick and concrete, rein.-con. flooring, concrete foundation, on Grand Ave. About $75,000. Architect not selected.

Wis., Kenosha—Hotel—D. T. McOwen, 213 Park St., having plans prepared by White, White & Co., archts., Pub. Serv. Bldg., for 4 story, rein.-con., brick, tile and terra cotta, on Park and Church Sts. About $200,000.

Wis., La Crosse—Club—Elks Lodge, 5th and State Sts., plans to build club house. About $200,000. J. F. Barlow, secy. Architect not selected.

Wis., Marinette—High School—School Bd. having plans prepared by D. Hubert, archt., Spies Bldg., Menominee, Mich., for 2 story, concrete and brick junior high school, rein.-con. flooring, concrete foundation. Bonds for $250,000 voted for project.

Wis., Oconomowoc—Theatre and Office—A. C. Clas, archt., Colby-Abbot Bldg., Mil-

Buildings (Continued)

waukee, opens bids about Nov. 20, building 2 story, 70 x 115 ft., brick and steel, rein.-con. flooring, concrete foundation, on Main St., here, for Binzel, Oconomowoc. About $75,000. Noted Nov. 11.

Wis., Racine — School — Bd. Industrial Educ., City Hall, having plans prepared by A. A. Guilbert, archt., Robinson Blk., for 3 story, 85 x 186 ft., brick, rein.-con. flooring, concrete foundation, on Geneva St. About $250,000.

Wis., West Bend—Store and Office—Fuge Hardware Co. having preliminary plans prepared by J. E. Hennen, archt., 74 South Main St., Fond du Lac, for 3 story, 80 x 160 ft., rein.-con., brick and steel, concrete foundation on Main St. About $75,000. H. Fuge, mgr.

Ia., Cedar Rapids — High School — Bd. Educ. soon receives bids building 4 rein.-con., brick and tile high schools. Cost, $1,200,000. Bonds for $1,000,000 voted for project. K. Mategil, secy. F. Tustison, 335 Auditorium Bldg., Minneapolis, Minn., engr. Rugh & Zalesky, 811 Securities Bldg., Des Moines, archts.

Ia., Mt. Delhi—School—Bd. Educ. having plans prepared by Netcott & Netcott, archts., 517-19 Black Bldg., Waterloo, for 2 story, 50 x 76 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation. About $81,000.

Ia., Shellsburg—High School—Bd. Educ. having plans prepared and receives bids about Jan. 15, building 3 story, 80 x 110 ft., rein.-con., brick, steel, stone and tile. About $160,000. A. K. Rife, secy. J. G. Ralston, 709 L. & J. Bldg., Waterloo, archt.

Minn., Annandale—High School—Bd. Educ. having plans prepared by C. H. Parsons, archt., 600 Builders Exch., Minneapolis, for 2 story, 110 x 154 ft. rein.-con., brick and stone. About $250,000.

Minn., Eveleth—High School—Bd. Educ. receives bids about January, building 3 story, 140 x 200 ft. rein.-con., brick, steel and tile. About $750,000. J. M. Stearns, clk. W. T. Bray, 817 Torrey Bldg., Duluth, archt. Noted Oct. 14.

Minn., Lewistown—High School—Bd. Educ. receives bids about Jan. 1, building 2 story, 60 x 100 ft. rein.-con., brick and tile. About $135,000. W. F. Gensmer, clk. Croft & Boerner, 822 Palace Bldg., Minneapolis, archts.

Minn., Minneapolis—Bath Houses—City receives bids in spring building concrete bath houses. About $75,000. F. W. Cappelen, city engr.

Minn., Minneapolis—High School—Bd. Educ. soon receives bids building main portion, 2 story, 224 x 246 ft., and industrial wing, 1 story, 116 x 232 ft., rein.-con., brick, steel and stone. About $600,000. Noted July 15.

Minn., Minneapolis—Office—A. H. Parks, 706 Physicians & Surgeons Bldg., is chn. of syndicate which plans to construct office building, 12 or more stories high. About $1,000,000. Architect not selected.

Minn., Minneapolis—Police Station—City voted $75,000 bonds to build 2 story, 60 x 90 ft. concrete, brick and stone, at 2915 Bryant Ave. S. A. O. Fosher, City Hall, asst. city bldg. inspector. J. F. Walker, supt. police.

Minn., Minneapolis—School—Bd. Educ. soon receives bids building 2 story, 104 x 200 ft. rein.-con., brick and stone, on 38th St. and Harriet Ave. E. H. Enger, 305 City Hall, archt.

Minn., Minneapolis—School—Bd. Educ., 305 City Hall, plans to build addition and convert grade school into junior high school at 410 James Ave. N. About $250,000. G. F. Womrath, business supt. E. H. Enger, 305 City Hall, archt.

Minn., Minneapolis—Theatre and Stores—A. Muenze & Co., 533 Palace Bldg., having plans prepared by S. J. Bowler, archt., 617 Phoenix Bldg., for 2 story, 85 x 170 ft. rein.-con. and brick. About $100,000. Noted Oct. 14.

Minn., Spring Grove—School—Bd. Educ. Dist. 54 had plans prepared by Sund & Dunham, archts., 512 Essex Bldg., Minneapolis, and receives bids about Jan. 1, building 2 story, 65 x 121 ft. rein.-con. and brick addition. About $100,000. J. A. Honoos, clk.

Minn., Thief River Falls—School—Bd. Educ. soon receives bids building 2 story, 88 x 113 ft. rein.-con. and brick. About $100,000. P. C. Myhrum, clk. Sund & Dunham, 512 Essex Bldg., Minneapolis, archts.

Kan., Scott City—Hospital—Scott City Hospital Co. having plans prepared by Mann & Gerow, archts., 722 Rorabaugh Wiley Bldg., Hutchinson, for 2 story, 35x70 ft. rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $75,000.

Kan., Scott City—School—Bd. Educ. having plans prepared by Mann & Gerow, archts., 722 Rorabaugh Wiley Bldg., Hutchinson, for rein-con., steel and brick, rein.-con. flooring, concrete foundation. About $80,000.

Neb., Lincoln—Municipal—City plans to construct 2 story, municipal building on 10th and Q Sts. Cost, between $100,000 and $150,000. E. Davis, Lincoln, archt.

Neb., Norfolk—High School—Bd. Educ. plans election to vote on $450,000 bonds to build 2 story, rein.-con., brick and tile. B. Wolford, secy. J. C. Stitt, Norfolk, archt.

Neb., Wymore—Hotel—Wymore Hotel Co., c/o J. S. Jones, plans to build hotel with 100 rooms, rein.-con., brick and steel, rein.-con. flooring concrete foundation. About $350,000. Architect not selected.

S. D., Rapid City—Court House and Jail—Pennington Co. having plans prepared by W. E. Hulse & Co., archts., 309 Securities Bldg., Des Moines, for court house and jail. Bonds for $500,000 voted for project. Noted Sept. 30.

S. D., Vermillion—School—Bd. Educ. having plans prepared by W. E. Hulse & Co., archts., 309 Securities Bldg., Des Moines, Ia., for building 2nd unit of Jr. High School and 2 grade schools, rein.-con. and steel, rein.-con. flooring. Total cost, $150,000. Noted Oct. 21.

N. D., Alamo—School—City voted $75,000 bonds to build 2 story school. Architect not announced.

Wyo., Casper — Fire House — City voted $110,000 bonds to build and equip new fire house. Noted Sept. 23.

Mont., Hamilton—Theatre—L. H. Sutton and W. J. Hartwig, 18 North Center St., Helena, plans to build rein.-con., brick and steel theatre, seating capacity 1,000. About $100,000. Architect not announced.

Mo., St. Louis—Clubhouse—Knights of Columbus, c/o L. E. Hart, La Salle Bldg., plan to build clubhouse, on Lindell Blvd. About $1,000,000. Architect not selected.

Mo., St. Louis—School—Cann & Corrubia, archts., De Menil Bldg., open bids about Dec. 1, building 3 story, 35 x 85 ft., brick and rein.-con., on Skinker and Lindell Sts., for Washington University. About $100,000.

Tex., Dalhart—High School—City voted $125,000 bonds to build high school. Address Superintendent of Schools, Independent Dalhart School Dist.

Tex., Dallas—Hospital—Methodist Episcopal Church South, c/o W. N. Ainsworth, Austin plans to build hospital, here, in connection with Medical College. About $1,000,000. Architect not selected.

Tex., Weatherford — High School — City plans election soon to vote on $200,000 bonds to build high school.

Tex., Woodville—High School—Independent School Dist. voted $75,000 bonds to build high school.

Okla., Norman—Fraternity House—Nu Omega Housing Assn. of Phi Gamma Delta plans to build 2 story, 45 x 100 ft., rein.-con., brick and stone rein.-con flooring, brick and concrete foundation on Boyd Ave. About $75,000. K. Nomland, 312 S. W. Natl. Bank Bldg., Oklahoma City, archt.

Col., Denver — Hospital — State Bd. Regents plan to build hospital and laboratory for curable insane here. Bonds for above project were authorized at last election, Nov. 2.

Wash., Seattle — Club — University of Washington, Y. M. C. A., Men's Bldg., University Campus, will receive bids in January building 4 story, 65 x 85 ft., rein.-con. and brick on North 42nd and 15th St. N. E. About $250,000. Baker, Vogel & Evans, Pacific Blk., archts.

Cal., Stockton—Hall, Exhibit, etc.—San Joaquin Co. defeated $350,000 bond issue to construct buildings at Agricultural Park. Noted Oct. 14.

Ont., West Toronto—Restaurant and Office—Childs Co., 200 5th Ave., New York City, soon lets contract building 6 story, 50 x 175 ft., brick, steel and stone, at 9 King St., here. About $200,000. J. C. Westervilt, 36 West 34th St., New York City, archt. and engr.

Ont., Windsor—Police Station—City had plans prepared by G. J. F. Jacques, archt., 18 Sandwich St. W., for 2 story, 69 x 80 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on City Hall Sq. About $175,000.

BIDS DESIRED

Mass., Boston — Church — Woodbury & Stuart, archts., 581 Boylston St., receiving bids building 1 story, brick and steel, rein.-con. flooring, rock foundation, for Italian Methodist Episcopal Church, Hanover St. About $75,000.

Mass., Boston—Institute—C. G. Loring, archt., 7 Water St., receiving bids altering mercantile building on Chauncy St. for Whitman Bldg. Institute, 78 Chauncy St. About $100,000.

Mass., Linwood—School—Church of Good Shepard receiving bids building 2 story, 62 x 88 ft., brick and steel, concrete foundation, on Linwood Ave. About $75,000. Private plans. Noted Sept. 30.

Mass., New Bedford—School—Until Nov. 22, by Bd. Educ. building 2 story, 171 x 184 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Summer St. About $600,000. Smith & Howland, Bartlett Bldg., archts. Noted Aug. 26.

Mass., New Bedford—Schools—Until Nov. 22, by Bd. Educ. building P. S. 1 on Rochambeau St., and P. S. 2 on Mt. Pleasant St., each to be 2 story, 170 x 250 ft., brick, steel and concrete, rein.-con. flooring, concrete foundations. Cost $800,000 each. LaBrode & Bullard, 251 Union St., archts. Incorrectly noted in our issue of Oct. 28.

N. Y., New York—Club and Office—Until Dec. 1, by Slee & Bryson, archts and engrs., 154 Montague St., Brooklyn, building 4 story, 50 x 75 ft. brick and stone, brick foundation, at 250 West 25th St., for Auditorium Assn., c/o architects. About $250,000. Noted June 10.

D. C., Wash.—School—Until Nov. 23, by Dist. Comrs., building 2 story, brick, steel and stone, on 18th, 20th, Monroe and Ashford Sts. About $150,000. S. Ashford, Dist. Bldg., archt. Noted Aug. 19.

Fla., Key West—Clubhouse, etc.—Until Dec. 4, by E. Martinez, engr., c/o Secretaria de Obras Publicas, Havana, Cuba, and Cuban Consuls office, here, building 3 story, 100 x 105 ft. rein.-con. and brick, rein.-con. flooring, for San Carlos Club. About $200,000.

Ill., Chicago — Home — Until Jan. 1, by C. B. Falkner, archt., 140 South Dearborn St., building 3 story, 100 x 100 ft., rein.-con., brick and stone, concrete and rock foundation, in Oak Haven Park, for Oak Haven Old Peoples Home, 66th St. and Stewart Ave. About $100,000.

Ill., Oak Park—High School—Holmes & Flinn, archts., 8 South Dearborn St., Chicago, receiving bids building 4 story, 100x200 ft., rein.-con. addition, concrete foundation, for Oak Park and River Forest Twp. About $200,000. Noted Jan. 1.

Ill., Rockford—Theatre and Office—J. E. O. Pridmore, archt., 38 South Dearborn St., Chicago, receiving bids building 2 story, 100x200 ft., rein.-con. brick, concrete foundation, here, for Frekiksen & Calvert. About $200,000.

Wis., Clear Lake—School—Until Dec. 15, by Bd. Educ., building 2 story, rein.-con. and brick, brick foundation. About $75,000. W. L. Alban, 374 Endicott Bldg., St. Paul, Minn., archt. Noted Nov. 11.

Wis., Frederic—High School—Until Dec. 15, by Secretary School Bd., building 2 story, 100 x 175 ft., brick, steel, and tile, rein.-con. flooring, concrete foundation. E. J. Hancock, Lyric Bldg., Eau Claire, archt. and engr. Noted Oct. 14.

Wis., Oconomowoc — Armory—Wisconsin Natl. Guard receiving bids building 2 story, 72 x 120 ft., rein.-con. and brick, concrete foundation, on Main St. About $120,000. H. C. Hengels, 1st Wisconsin Natl. Bank Bldg., Milwaukee, archts. Noted Oct. 28.

Kan., Eldorado—Auditorium—Until Nov. 23, by city building 2 story, 65 x 135 ft., concrete and steel. Washburn & Stookey, Ottawa, archts. About $100,000. Noted Sept. 30.

Buildings (Continued)

Kan., Glasco—School—Until Dec. 1, by Bd. Educ., Dist. No. 2, building 2 story, 60 x 96 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $100,000. W. H. Sayler & Co., 306 Mutual Bldg., Kansas City, Mo., archts. Noted Sept. 9.

Kan., Topeka—Hospital—Until Dec. 3 by Shawnee Co., building 3 story, 40x55 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $75,000. F. C. Squires, 628 Kansas Ave., archt.

S. D., Mitchell—Auditorium—Until Dec. 3, by F. McGovern, city aud., building 1 story (70 ft. high), 182 x 300 ft., rein.-con. and brick, on North Main St. and 6th Ave. About $300,000. Former bids rejected. C. W. and G. L. Rapp, 190 North State St., Chicago, archts. Noted Sept. 30.

Okla., Tulsa—Temple—Masonic League, 518 South Main St., receiving bids building 6 story, 100 x 140 ft., rein.-con., brick and stone addition, concrete foundation. About $650,000. R. G. Schmid & Co., 154 West Randolph St., archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Vt., Newport**—Armory—State Bldg. Comn., Montpelier, let contract building 1 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, to H. O. Smith, Newport. About $75,000.

★**Mass., Boston**—Office—W. Whitman Co. Inc., 78 Chauncy St., let contract remodeling exterior and interior, to Whidden-Beekman Co., 100 Boylston St. About $100,000.

★**N. Y., Great Neck**—Schools—Bd. Educ. let contract building two 2 story, brick and stone, brick foundations, on Middle Neck Rd., to M. C. Tredennick, 331 Madison Ave., New York City. About $400,000. Noted Oct. 21.

★**N. Y., Hadley**—Housing—See "Industrial Works."

★**N. Y., New York**—Store and Office—Sidem Bldg. Co., c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., will build 6 story, 50 x 100 ft. brick, steel and stone, concrete foundation, at 123 West 33d St. About $200,000. Work will be done by day labor.

★**Del., Wilmington**—Theatre—Parkway Co., Box 46, let contract building brick and stone, to J. S. Hamilton & Co., 829 Orange St. About $107,000.

★**Md., Baltimore** — Synod Hall — Protestant Episcopal Cathedral of Incarnation, University Parkway, let contract building 2 story, 50 x 70 x 140 ft., stone and granite, concrete foundation, to Morrow Bros., 1201 Fidelity Bldg. About $270,000.

★**Va., Norfolk**—Synagogue—Beth El Congregation, c/o Herts & Robertson, archts. and engrs., 331 Madison Ave., New York City, let contract building brick, stone and steel, brick foundation, here, to E. W. Minter Co., Inc., 115 Bway., New York City. About $250,000. Noted Jan. 29.

★**O., Cleveland**—Bank and Commercial—Cleveland Trust Co., c/o A. McCaslin, East 9th St. and Euclid Ave., let contract building 2 story, 40 x 80 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Fulton Rd. and Poe Ave., to G. A. Rutherford Co., 2729 Prospect Ave. About $75,000. Noted Oct. 28.

★**O., Cleveland**—Clubhouse—Carpenters Dist. Counsel, c/o H. C. Miller, West 3rd St. and St. Clair Ave., let contract remodeling brick, steel and concrete clubhouse, on East 14th St. and Central Ave., to Concrete Constr. Co., 2325 Riverside Rd. About $80,000.

★**O., Cleveland**—Commercial and Office—S. Kaplan, 1418 Prospect Ave., let contract building 2 story, 62 x 90 ft., brick and steel, brick foundation, at 1428 Prospect Ave., to A. Hausman, 18014 Gooding Ave. About $75,000.

★**O., Cleveland**—Hospital—Babies & Children's Hospital Assn., c/o A. Garfield, archt., 915 Natl. City Bldg., let contract building 9 story, 60 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 11020 Euclid Ave., to Crowell & Little Constr. Co., 1951 East 57th St. About $500,000. Noted Sept. 2.

★**O., Cleveland Heights** (Warrensville, P. O.)—School—Bd. Educ., Lee Rd., let contract building 2 story, to have two 35 x 70 ft. wings, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Fairfax Rd., to J. A. Moffett Co., 1836 Euclid Ave., Cleveland. About $140,000.

★**O., Conneaut** — Exchange, etc. — Conneaut Telephone Co. let contract building 2 story, 40 x 80 ft., exchange and garage, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, to Horton Constr. Co., Conneaut. About $75,000. Noted Oct. 14.

★**O., Lakewood** (Cleveland P. O.)—Schools—Bd. Educ. Warren Rd., let contract building 2 story, rein.-con., brick and steel additions, to McKinley, Lincoln and Franklin Schools, to Schirmer-O'Hara Co., 2031 Euclid Ave., Cleveland. About $350,000. Noted Aug. 12.

★**O., Marion**—Bank—Marion Natl. Bank let contract building 2 story, 47 x 132 ft., stone and steel addition, on Main St., to E. Elford, 307 East Gay St., Columbus. About $75,000. Noted Aug. 5.

★**Ind., Lafayette**—Office—Brotherhood of Painters, Decorators & Paperhangers let contract building 4 story, 60 x 120 ft., rein.-con., brick and terra cotta, on 4th and Ferry Sts., to A. E. Kemmer, 644 North 7th St. About $125,000. Noted Sept. 2.

★**Ill., Chicago**—Office and Store—Associated Silver Co., 5 South Wabash St., let contract building 2 story, 75 x 75 ft., rein.-con. and brick, concrete foundation, on Sunnyside St. and West Ravenswood Park, to H. F. Friestedt, 327 South LaSalle Ave. About $80,000.

★**Ill., Milledgeville**—School—Ashby, Ashby & Schulze, archts., 178 West Jackson St., Chicago, let contract to Schmidt Constr. Co., 105 North Clark St., Chicago, building 2 story, 80x134 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, for Bd. Educ. About $140,000. Noted Nov. 11.

★**Wis., Fond du Lac**—Hotel—Forest Ave. Hotel, 170 Forest Ave., let general contract building 4 story, 90 x 120 ft., rein.-con., brick, steel and tile, brick foundation, on Forest Ave. and Harrison Pl., to L. Schroeder, Main St. Total cost, $250,000.

★**Mo., Kansas City** — Church — Epworth Methodist Episcopal congregation let concrete contract for 2 story, 53 x 73 ft., on 45th and Bell Sts., to O. Tindahl, Kansas City, Mo. Balance of work to be done by day labor.

★**Col., Denver** — High School — City let contract building Morey Jr. High School, 2 story, 158 x 340 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 13th and 14th Aves., Emerson and Clarkson Sts., to J. R. McDonald, 2205 Forest St. About $427,000. Noted Sept. 30.

★**Ariz., Tucson** — Dormitory—University of Arizona let general contract building boys' dormitory, brick and stone, on campus, to English & Pierce, Phoenix, $122,300; plumbing and heating, to Corbett Co., Tucson, $10,268. Noted May 6.

★**Cal., Pasadena**—Laboratory and Hall—Throop College of Technology, East California St., let contract building laboratory and hall, rein.-con. and steel, rein.-con. flooring, concrete foundations, to W. C. Crowell. Chamber of Commerce. About $150,000 and $75,000 respectively. Noted Feb. 26.

HIGHWAY—CALIFORNIA

Bids were received by State Highway Comn., Sacramento, for constructing highway from Wadsworth Canal to Yuba City, Sutter Co., from (A) John Doyle, San Jose, (B) M. Blumenkrantz, Stockton; (C) C. M. Benson, Los Angeles. The unit bids were as follows:

	A	B	C
15,000 cu. yd. excavation without classification	$1.13	$1.65	$1.40
7,280 cu. yd Portland cement concrete class "A" (pavement)	17.60	19.90	22.2[illegible]
45 cu. yd. Portland cement concrete class "A," (culverts and monuments	32.00	45.00	50.00
456 lin. ft. 12 in. corrugated metal pipe	2.75	3.00	4.00
102 lin. ft. 15 in. corrugated metal pipe	3.00	3.50	5.00
8 lin. ft. 36 in. corrugated metal pipe	7.00	5.00	8.00
96 lin. ft. guard rail	1.00	1.25	2.00
37 monuments (hauling and setting)	3.00	2.00	5.00
Extended totals	$148,341	$173,606	$188,00[illegible]

Federal Government Work

PROPOSED WORK

Va., Langley Field — Roofing Dirigible Hangar—Constr. Div., War Dept., Wash. D. C., plans, here. Bids will be opened by Construction Quartermaster at above post.

Ill., Rock Island — **Recuperator Shop** — Constr. Div., War Dept., Wash., D. C., plans to build at arsenal, here. Bids will be received by Construction Quartermaster at above post.

P., Ft. Mills—Water System and Tank—Constr. Div., War. Dept., Wash., D. C., plans to build salt water system and rein.-con. water tank. Bids will be opened by Construction Quartermaster at above post.

BIDS DESIRED

S. C., Spartanburg—Mailing Vestibule, etc.—Until Dec. 6, by Treas. Dept., Wash., D. C., building new mailing vestibule, extending driveway and making interior changes in Post Office, here. J. A. Wetmore, superv. archt.

Ky., Louisville—Steel Dump Scows—Until Dec. 20, by U. S. Engineer, Box 72, furnishing and delivering 2 steel dump scows. Noted Aug. 5.

Ind., Ft. Wayne—Mezzanine Floor—Until Nov. 30, by Treas. Dept., Wash., D. C., building, in U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Mich., Lansing—Elevator—Until Nov. 30, by Treas. Dept., Wash., D. C., installing in Post Office, here. J. A. Wetmore, superv. archt.

Ill., Chicago — Mezzanine Floor — Until Dec. 2, by Treas. Dept., Wash., D. C., building, in U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Ill., Rockford — Freight Elevator — Until Dec. 1, by Treas. Dept., Wash., D. C., installing complete electric freight elevator in Post Office, here. J. A. Wetmore, superv. archt.

Tex., Galveston—Surface Drainage System—Until Dec. 9, by Treas. Dept., Wash., D. C., building new surface drainage system, new spray apron, repairing riprap, etc. J. A. Wetmore, superv. archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., South Boston (Boston P. O.)—Steam Locomotive Crane—Spec. 4263—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 10, installing at Naval Dry Dock, here, (1) work complete, from McMyler Interstate Co., Bedford, O., (2) $193,264, (240 days), (4) $178,320, (240 days), (5) $22; V. R. Browning, 1770 Lake Shore Blvd., Cleveland, O., (1) $235,000, (270 days), (2) $220,000, (270 days), (3) $215,000 (260 days), (4) $200,000, (5) $20 (260 days), alternate (1) $210,000. Noted Oct. 28.

★**N. Y., Ellis Island** (New York P. O.)—Hot Water Supply and Circulation System—Treas. Dept., Wash., D. C., let contract renewing entire hot water supply and circulation system, at Immigration Sta., here, to C. F. Mentzinger Sons, 354 Bway., Brooklyn, N. Y., $15,620.

N. Y., New York — Electric Traveling Bridge Crane—Spec. 4250—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 10, building for bulkhead handling ways No. 1 here, (1) work complete, from A. D. Grainger Co., 15 Park Row, (1) $56,400, (150 days), (2) $36,555, (150 days), (3) $19,900, (150 days), (4) $1.80; Niles-

Federal Government Work (Continued)

Bement-Pond Co., 111 Bway., (1) $57,900, (180 days), (2) $40,400, (180 days), (3) $17,500, (180 days), (4) $3, alternate 1, $51,200, (180 days), (2) $33,700; Manning, Maxwell & Moore, 119 West 40th St., (1) $69,774, (98 days), (2) $48,652, (98 days), (3) $21,122, (84 days), (4) $1.60. Noted Oct. 28.

N. Y., New York—Restoration of Assay Office—Treas. Dept., Wash., D. C., received bids Nov. 4, restoring damaged portions of U. S. Assay Office, here, from North Eastern Constr. Co., 101 Park Ave., $45,840; R. H. Brown, New York City, $46,214; B. Knopp, 131 West 41st St., $47,000. Noted Oct. 21.

★**N. J., Perth Amboy**—Extending Driveway, etc.—Treas. Dept., Wash., D. C., let contract repairing and extending driveway, etc., at Post Office, here, to W. J. Meagher, 211 Market St., $2,459.

★**Pa., Washington** — Mailing Vestibule — Treas. Dept., Wash., D. C., let contract building, in Post Office, here, to W. McDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $3,939. Noted Oct. 21.

D. C., Wash.—Conduit, Wiring, etc.—Treas. Dept. received bids Nov. 11, furnishing conduit, wiring and lighting fixtures in Butler Bldg., from Detroit Electric Co., 2155 Champlain St. N. W., $1,810 (35 days); Standard Eng. Co., 2129 I St., N. W., $2,040 (45 days); J. R. Proctor, Inc., 74 Cortlandt St., New York City, $2,099 (120 days). Noted Oct. 21.

D. C., Wash.—Motor Generator Sets, etc.—U. S. Engineer, 305 Southern Bldg., received bids furnishing motor generator sets, transformers, pumps, etc., (1) work complete, from Worthington Pump & Mchy. Corp., Homer Bldg., (1) $38,759, alternate, deduct, $140, (2) $10,205, (3) $7,003, (4) $6,037, (5) $12,841, total, $74,845, (275 days); De Laval Steam Turbine Co., North Clinton St. and Pennsylvania R.R. tracks, Trenton, N. J., (1) $41,100, alternate, deduct $150, (2) $11,990, alternate add $400, (3) $7,520, (4) $6,560, (5) $13,700, total $79,870, (300 days); Ellicott Machine Corp., Bush and Severn Sts., Baltimore, Md., (1) $52,844, (2) $14,059, (3) $6,840, (4) $5,895, (5) $12,540, total, $90,300, (315 days); Westinghouse Electric & Mfg. Co., Hibbs Bldg., total for De Laval pumps, $74,845, Worthington pumps, $75,919, alternate bid, deduct $1,200. Delivery: ship all apparatus except pumps for sand washing and motors and motor generator sets within 10 months, complete erection in 11 months, and can ship motors for sand washing pumps and motor generator sets in 13 months, complete erection of same in 14 months.

★**Va., Cape Charles**—Sewer Pipe—Treas. Dept., Wash., D. C., let contract installing sewer pipe at Quarantine Sta., here, to J. Stewart & Co., 30 Church St., New York City, $3,100.

Ind., Indianapolis—Mezzanine Floor—Treas. Dept., Wash., D. C., received bids Nov. 10, building in Post Office, here, from Brandt Bros. Co., Chamber of Commerce Bldg., $1,740; W. McDonald Constr. Co., 4400 North Main St., St. Louis, Mo., $2,190 (90 days); R. L. Elder, 219 North Delaware St., $2,220 (75 days). Noted Oct. 28.

Ill., Bloomington—Loading Shed—Treas. Dept., Wash., D. C., received bids Nov. 9, installing in Post Office, here, from G. Gildner, Bloomington, $998; C. J. Wilderstreet, $1,050; West Side Planing Mill Co., Bloomington, $1,218. Noted Oct. 28.

Cal., Mare Island — Heating System—Spec. 4189—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids installing in Navy Yard, here, (1) work complete, from Empire Steam & Hot Water Heating Co., 600 North Howard St., Baltimore, Md., (1) $54,880, (2) $2,500, (3) $1,500 (150 days); Austin Eng. Co., 121 West 42nd St., New York City, (1) $63,475 (150 days), (2) $1,800, (3) $1,900; T. Conlin Plumbing & Heating Co., 3978 Cottage Grove Ave., Chicago, Ill., (1) $65,413, (2) $1,600, (3) $1,175 (120 days). Noted Oct. 28.

Miscellaneous

PROPOSED WORK

Coal Pocket—Middleton, Mass.—Comrs. Essex Co., Court House (Salem), plans to build rein.-con. coal pocket, here. About $15,000. J. H. Bickford Co., 6 Beacon St., Boston, archts.

Generators, Turbines, etc.—Dayton, O.—Dayton Power & Light Co., 4th and Jefferson Sts., authorize $1,000,000 bond issue, to purchase generators, turbines, transmission material, transformers, etc.

Park—Dayton, O.—City plans to build new park in Dayton View on west side Miami River, including grading, paving roadways, erecting buildings and playground apparatus, etc. About $250,000. L. Lott, Dayton, archt.

Tract Development—Osborn, O.—Village purchased 267 acres and plans to remove whole village to new site. Work includes construction of streets, sewers and waterworks system and removal of present buildings. About $300,000. M. D. Rice, Osborn, atty.

Tunnel — Detroit, Mich. — Bd. Water Comrs., 232 East Jefferson Ave., having plans prepared by T. A. Leisen, engr., 232 East Jefferson Ave., for ½-mi. tunnel under Mt. Elliott and Elmwood Cemeteries, involving 48 in. c. i. watermains, electric conduits, wire, cables, etc.

Grain Elevator — Minneapolis, Minn. — Central Milling Co., 828 18th Ave. N. E., plans to build concrete grain elevator to replace one destroyed by fire. About $75,000. M. F. Payne, pres.

Fire Protection—Red Wing, Minn.—See "Sewers."

Stadium—Lawrence, Kan.—State Building Comrs., having plans prepared by L. Bailey, archt., Lawrence, for rein.-con. and steel stadium, rein.-con. flooring, concrete foundation, here. About $100,000.

Breakwater, Pier, etc.—Missoula, Mont.—Missoula Light & Water Co., Masonic Temple Bldg., plans to build 150 ft. breakwater, also concrete and steel pier, etc. About $20,000. Work will probably be done by day labor. J. C. Phillips, secy. Power Eng. Co., 621 Metropolitan Life Bldg., Minneapolis, engrs.

Incinerator—Austin, Tex.—City election Dec. 12, to vote on $25,000 bonds to build garbage incinerator. C. E. Leonard, city engr.

Swimming Pool—Austin, Tex.—City election Dec. 12, to vote on $20,000 bonds to build swimming pool. C. E. Leonard, city engr.

Dam—Price, Utah—Mammoth Reservoir Co. plans to rebuild dam. About $150,000. C. J. Ulrich, State Capitol, Salt Lake City, engr.

Incinerators—Montreal, Que.—City soon receives bids building 3 incinerators. About $1,000,000. A. E. Doucet, city engr.

Tunnel—Montreal, Que.—City plans to build tunnel from site of Bonsecours Market to Craig St. at City Hall Ave., about 600 ft. long, 100 ft. wide. About $250,000.

Road Machinery—St. Lambert, Que.—C. E. Drinkwater, engr., soon receives bids for road machinery. About $20,000.

Steel Pipe—Vancouver, B. C.—City receives bids about Nov. 25 furnishing 2,650 ft. 16 in. steel riveted pipe. F. L. Fellowes, City Hall, engr.

BIDS DESIRED

Dock Wall—Buffalo, N. Y.—Until Dec. 14, by E. S. Walsh, supt. Pub. Wks., Capitol, Albany, building portion of dock wall around Ohio Basin, here, Terminal Contr. 53-A Reversed; advertised in this issue. Noted Oct. 21.

Dumping Scows—New York, N. Y.—Until Nov. 23, by F. A. Eschmann, acting comr. Street Cleaning Dept., Room 1244, Municipal Bldg., furnishing and delivering 5 dumping scows. Former bids rejected. Noted Nov. 11.

Dryer Cylinder, etc.—New York, N. Y.—Until Nov. 26, H. Bruckner, pres. Bronx Boro., Municipal Bldg., Crotona Park, Tremont and 3rd Aves., furnishing and delivering 1 dryer cylinder complete to fit Cummer Rd. plant, 1,500 bags Portland cement and 2,000 cu.yd. hard coal clean steamed boiler ashes.

Under Ground Cables—New York, N. Y.—Until Nov. 29, by R. E. Enright, police comr., 240 Centre St., installing new underground cables and telephone cable on Manhattan Bridge structure between Manhattan and Brooklyn anchorages to said bridge.

Pipe and Specials—East Orange, N. J.—Until Nov. 22, by Bd. Water Comrs., furnishing 100 ton c.i. pipe and specials. R. M. Roper, 436 Main St., engr.

Rock Crusher, etc.—Black Creek, Wis.—Outagamie Limestone Co., 75 30th St., Milwaukee, receiving bids on rock crusher, bucket elevator and pulverizer for quarry, here.

Gas Mains etc.—Fort Atkinson, Wis.—H. H. Smith, city clk. receiving bids on 7,000 ft. 6 in. c.i. gas mains, 6 ft. water gas generator set, station meter purifiers and air blowers. About $25,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Crane Runway — Worcester, Mass.** — Morgan Constr. Co., 15 Belmont St., let contract building steel crane runway 257 ft. long, 60 ft. wide, on concrete piers, at Crescent St. plant, to Eastern Bridge & Structural Co., 88 Crescent St. About $25,000.

★**Gasoline Storage Tanks—Bridgeport, Conn.**—Tidewater Oil Corp., Bostwick Ave., let contract constructing 2 gasoline storage tanks, one to be 55 ft. diameter, 30 ft. high and other 30 ft. diameter, 30 ft. high, concrete foundations, to Eastern Eng. & Constr. Co., 886 Main St. About $25,000.

★**Steel Runway, etc.—Bridgeport, Conn.** — Bridgeport Screw Co., Union Ave., let contract constructing steel runway, monorail and crane, to Porcupine Co., 720 Wordin Ave. About $15,000.

★**Conduit System—New Britain, Conn.**—City will build 50,000 lin.ft. vitr. hollow tile and wood conduits in Park St. Work will be done by day labor.

Entrance — Brooklyn, N. Y. — Transit Comm., 49 Lafayette St., New York City, received bids Nov. 11, improving entrance to Boro. Hall Sta., through Isle of Safety, from J. Schlesinger, 253 West 30th St., New York City, $19,835; J. R. Roberts Co., $20,485; S. F. Jones, $22,987.

Heating and Ventilating Apparatus—New York, N. Y.—Bd. Educ. received bids Nov. 9, repairing and altering heating and ventilating apparatus in (a) P. S. 74, (b) P. S. 81, from Miller & Brady, Inc., 210 East 38th St., (a) $6,000, (b) $17,399; J. Dames Co., 199 Nostrand Ave., Brooklyn, (a) $6,278; D. J. Rice, 405 Lexington Ave., (a) $7,223, (b) $17,182; L. Ruetzle Co., Inc., (b) $16,422.

Repairing Roofs, Etc.—New York, N. Y.—Bd. Welfare received bids Nov. 12, repairing and replacing roofs, gutters and leaders of Nurses Home, Metropolitan Hospital, from Northern Waterproofing Co., 170 East 73rd St., $23,417; Central Cornice Wks., 336 West 37th St., $27,165; Anchor Corrugating Constr. Co., 140 Washington St., $34,850.

★**Amusement Park—Atlantic City, N. J.**—Boardwalk Park Co., Continental Bldg., Baltimore, let contract building amusement park, steel, concrete and stucco, to W. Beaumont, 12 South Tennessee Ave. About $300,000.

Splice Bars—Detroit, Mich.—Street Ry. Comn., Marquette Bldg., received bids furnishing 10,000 pair splice bars, from Whitehead & Kales Iron Wks., Beecher Ave. and along tracks of Michigan Central Ry., $24,900; Lorain Steel Co., 53 West Jackson Blvd., Chicago, $27,000; Bethlehem Steel Co., Bethlehem, Pa., $35,000.

★**Foundation—Milwaukee, Wis.**—Standard Oil Co., Brumder Bldg., let contract constructing rein.-con. foundation for 4 story, 75x100 ft. rein.-con. and brick office and service building, on Sycamore St., to Universal Constr. Co., 79 Wisconsin St. Total cost, $300,000. Noted Sept. 2 under "Buildings."

★**Foundation — Milwaukee, Wis.** — E. Schuster & Co., 6th and Mitchell Sts., let contract constructing concrete foundation for 4 story, 69 x 120 ft. store building, on Mitchell St., to T. Stark & Co., 425 East Water St. Noted Sept. 23 under "Buildings."

★**Steel and Operating Machinery, Etc.—Jefferson City, Mo.**—State Highway Dept. let contract furnishing 750,000 lb. fabricated structural steel, for bridge over Osage River, near Hubers Ferry, Federal Aid Project 12, Osage and Cole Counties, to Stupp Bros. Bridge & Iron Co., Frisco Bldg., St. Louis, $46,275, also furnishing 9,000 lb. sheaves, shafts and bearings, 1,000 lb. equalizers and pins, and 6,000 lb. operating machinery, for above project, to Federal Bridge & Structural Co., Lincoln Ave., Waukesha, Wis., $5,056. See item under "Bridges."

Portland Cement—San Diego, Cal.—A. H. Wright, clk., received bids Nov. 3, furnishing 25,000 bbl. Portland cement for Barrett Dam (prices include freight to job), from U. S. Potash Co., 608 Hibernian Bldg., Los Angeles, at $4.20½ per bbl.; J. S. Schirm Commercial Co., 268 4th St., $4.36½; Spreckels Bros. Commercial Co., Sante Fe Wharf, and California Portland Cement Co., Douglas Bldg., Los Angeles, each $4.37.

OFFICIAL PROPOSALS

Bids: Dec. 1.

Grading

STATE OF NEW JERSEY
STATE OF HIGHWAY COMMISSION
Trenton, N. J.

Notice is hereby given that sealed bids will be received by the State Highway Commission of New Jersey for the following:

Completion of grading on State Highway Route No. 3, Ancora-Atco Section, Camden County, estimated 15,349 cu.yds. of excavation and 13,418 cu.yds. of extra embankment.

Bids will be opened and read in public at the State House, Trenton, New Jersey, on Wednesday, December 1st, 1920, at 2 P.M.

Drawings, specifications and form of bid contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, New Jersey, and at the office of J. A. Williams, Division Engineer, 503 Market Street, Camden, New Jersey, and may be inspected by prospective bidders. Plans and specifications will be furnished on deposit of Ten Dollars ($10.00) upon application to the Division Engineer, 503 Market Street, Camden, New Jersey. Bids must be made on the standard proposal forms in the manner designated therein and as required by the specifications, same to be enclosed in sealed envelopes bearing the name and address of bidder and the name and section of the route on the outside, addressed to State Highway Commission, Broad Street Bank Bldg., Trenton, N. J., and must be accompanied by a certified check for not less than ten per cent (10%) of the amount of the bid, and be delivered at the above place on or before the hour named. Copies of the standard proposal form will be furnished on application.

Each bidder must accompany his bid with a certificate from a surety company, duly authorized to do business in this State, stating that such surety company will provide said bidder with a bond in such sum as is required in and in accordance with the provisions of said specifications, conditioned for the faithful performance of the provisions of the contract and specifications.

BY ORDER OF THE STATE HIGHWAY COMMISSION.

A. LEE GROVER,
Chief Clerk.

Bids: Dec. 14.

Canal Improvements

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS
Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Tuesday, December 14th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911 and amendatory laws, and Chapter 402 of the Laws of 1920, as follows:

TERMINAL CONTRACT NO. 53-A Revised.

For constructing certain portions of the dockwall around Ohio Basin, Buffalo.

Contract plans, sheets 1-7.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, forms of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposit of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.

November 9th, 1920.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Dec. 7.

Furnishing and Laying Pipe

DEPARTMENT OF LIGHT, WATER AND SEWERS
Saginaw, Mich.

Sealed proposals will be received by the City of Saginaw until Tuesday, Dec. 7, 1920, at 7.30 P.M., for furnishing, laying, connecting, testing and making water-tight a pipe connection from Porter Street to Washington Avenue, including crossing the Saganaw River.

Plans may be seen, and specifications, form of proposal, bond and contract obtained, at the office of the City Engineer, and at the office of Hazen, Whipple & Fuller, Consulting Engineers, 30 East 42nd Street, New York City.

The proposal for said work shall be accompanied by a certified check drawn upon a state or national bank, for $5,000, payable to the order of the City of Saginaw.

The checks deposited by the unsuccessful bidders will be returned by the City. The amount of the check deposited by the successful bidder shall be forfeited in the event that said bidder shall fail, within the time herein set forth, to execute the formal contract and deliver the bond hereinafter required. A bond in the sum of forty thousand ($40,000) dollars will be required to be executed by the party to whom the contract is awarded, with an incorporated surety company duly authorized to execute the same.

All bids will be compared on the basis of the Engineer's estimate of the quantities of work done, as follows:

Item 1: 11,000 cubic yards of preliminary dredging.
Item 2: 8,000 cubic yards of dredging.
Item 3: 300 cubic yards trench excavation below grade.
Item 4: 6,000 cubic yards trench excavation.
Item 5: 800 cubic yards of tamping.
Item 6: 900 cubic yards of fill.
Item 7: 703 feet double 24" river crossings, lump sum.
Item 8: 345 feet single 30" river crossing, lump sum.
Item 9: 2,440 feet 36" steel pipe, lump sum.
Item 10: 1,150 feet of 30" steel pipe, lump sum.
Item 11: Cast iron pipe and specials; 65,120 lbs., furnished and placed, lump sum.
Item 12: Placing gates, furnished by City, lump sum.
Item 13: 100 cubic yards concrete in bags below water.
Item 14: 500 cubic yards concrete in trench.
Item 15: 100 cubic yards all other concrete.
Item 16: 5,000 pounds steel reinforcing.
Item 17: Supporting tracks, lump sum.
Item 18: Appurtenances, lump sum.

These quantities are approximate only, being given as a basis for the comparison of bids, and the said City reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary by the Engineer. The contract will be awarded to the lowest and best responsible bidder, but the City reserves the right to reject any or all bids, should it deem it for the interest of the city to do so.

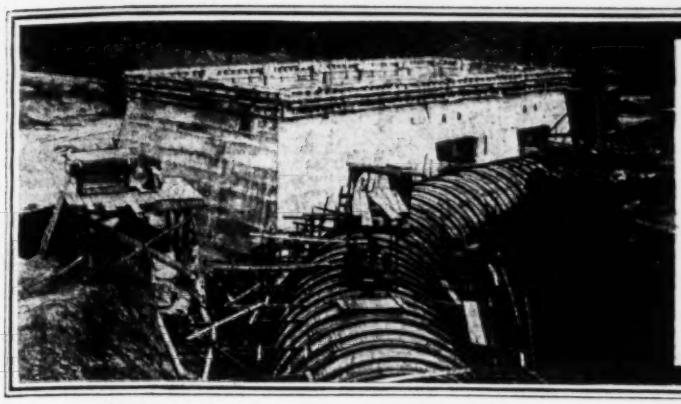
Bids will be considered for optional methods of doing certain parts of the work, which options shall be declared in the bid, and in considering the bids received, the City will consider not only the prices bid but also the strength and reliability and durability of the materials and designs and methods, that are proposed in the bids under these options.

The work shall be commenced within sixty (60) days, and shall be completed November 1, 1921.

All proposals for the above work shall be addressed to the City of Saginaw, Michigan, and shall have indorsed on the envelope "Proposals for Saginaw River Crossing."

R. F. JOHNSON,
Commissioner of Light, Water and Sewers of the City of Saginaw.

Nov. 10, 1920.



CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 30	Alma, Mich. Adv. Nov. 18 and 25.	Nov. 18
Dec. 7	Saginaw, Mich.	Nov. 18
Dec. 15	Poughkeepsie, N. Y. Adv. Nov. 18 and 25.	Nov. 18

SEWERS

Dec 1	Thiells, N. Y. Adv. Nov. 18 and 25.	Nov. 18
Dec. 6	Little Falls, Minn.	Nov. 18
Dec. 8	Ossining, N. Y. Adv. Nov. 18 and 25.	Nov. 18

BRIDGES

Nov. 29	Columbus, Kan.	Nov. 18
Nov. 29	Florence, S. C.	Nov. 25
Dec. 1	Columbus, Kan.	Nov. 18
Dec. 1	Greensboro, Ga.	Nov. 25
Dec. 3	Topeka, Kan.	Nov. 18
Dec. 3	Topeka, Kan.	Nov. 25
Dec. 3	Breckenridge, Tex.	Nov. 25
Dec. 7	Chapman, Kan.	Nov. 25
Dec. 7	Grand Rapids, Mina.	Nov. 18
Dec. 8	Manning, S. C.	Nov. 25
Dec. 10	White Springs, Fla. Adv. Nov. 18 and 25.	Nov. 18
Dec. 14	Winnipeg, Man.	Nov. 25
Dec. 17	Detroit, Mich.	Nov. 25
Jan. 8	Miami, Fla. Adv. Nov. 25.	Nov. 18
Feb. 7	Bainbridge, Ga	Nov. 25
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Nov. 29	Topeka, Kan.	Nov. 4
Nov. 29	Littlefield, Tex.	Nov. 25
Nov. 30	Georgia	Nov. 11
Nov. 30	Maryland Adv. Nov. 18 and 25.	Nov. 25
Dec. 1	Columbus, Kan.	Nov. 11
Dec. 1	New Jersey Adv. Nov. 18 and 25.	Nov. 18
Dec. 1	Rhode Island Adv. Nov. 18 and 25.	Nov. 18
Dec. 1	Greensboro, Ga.	Nov. 25
Dec. 2	Ft. Myers, Fla.	Nov. 18
Dec. 2	Lockport, Ill. Adv. Nov. 25.	Nov. 25
Dec. 2	Missouri	Nov. 25
Dec. 3	Missouri	Nov. 25
Dec. 4	Indiana	Nov. 25
Dec. 7	Grand Rapids, Minn.	Nov. 18
Dec. 7	Indiana	Nov. 25
Dec. 7	Missouri	Nov. 25
Dec. 8	Creston, Ia.	Nov. 25
Dec. 8	Belvidere, N. J. Adv. Nov. 18 and 25.	Nov. 18
Dec. 10	Florida Adv. Nov. 18 and 25.	Nov. 18
Dec. 10	Missouri	Nov. 25
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 10	Stockton, Kan.	Nov. 18
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Nov. 30	Rockwell City, Ia.	Nov. 25
Dec. 15	Clarinda, Ia.	Nov 25

RAILWAYS

Nov. 30	Quebec	Nov. 11

INDUSTRIAL WORKS

Nov. 30	Marshfield, Wis.	Nov. 18
Dec 1	Metuchen, N. J.	Oct 28

BUILDINGS

Nov. 27	Burlington, N. J.	Nov. 25
Nov. 30	Cleveland, O.	Nov. 25
Dec. 1	Johnstown, Col.	Nov. 11
Dec. 1	Piqua, O.	Nov. 11
Dec. 1	Glasco, Kan.	Nov. 18
Dec. 1	New York, N. Y.	Nov. 18
Dec. 3	Topeka, Kan.	Nov. 18
Dec. 3	Mitchell, S. D.	Nov. 18
Dec. 4	Key West, Fla.	Nov. 18
Dec 4	Hot Springs, Ark.	Nov. 25
Dec. 6	Ossining, N. Y.	Oct. 21
Dec. 6	Atlantic City, N. J.	Nov. 11
Dec. 6	Brooklyn, N. Y.	Nov. 25
Dec. 7	Detroit, Mich.	Nov. 25
Dec. 10	Brooklyn, N. Y.	Oct. 21
Dec. 13	Lakewood (Cleveland P. O.), O.	Nov. 25
Dec. 14	Hyde Park (Boston P. O.), Mass.	Nov. 25
Dec. 14	Storrs (Eagleville P. O.) Conn.	Nov. 25
Dec. 15	Frederic, Wis.	Nov. 18
Dec. 15	Clear Lake, Wis.	Nov. 18
Dec. 15	Pocahontas, Ia.	Nov. 25
Dec. 15	Wabash, Ind.	Nov. 25
Dec. 21	Detroit, Mich.	Nov. 25
Jan. 1	Marietta, O.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 18
Jan. 1	Little Rock, Ark.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 25
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Nov. 25
Jan. 2	Duluth, Minn.	Oct 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis.	Nov. 11
Jan. 4	Greeley, Col.	Nov. 25

FEDERAL GOVERNMENT WORK

Nov. 27	Repairing Plumbing and Heating Systems, etc—Ft. Slocum, N. Y.	Nov. 25
Nov. 29	Frame Cottage — Denver, Col.	Nov. 25
Nov. 30	Mezzanine Floor — Ft. Wayne, Ind	Nov. 18
Nov. 30	Elevator—Lansing, Mich.	Nov. 18
Dec. 1	Refrigerating Equipment — Spec. 4303—San Diego, Cal	Nov. 11
Dec. 1	Ordnance Buildings—Spec. 4168 –Kuahua, H. T.	Nov. 4
Dec. 1	Freight Elevator—Rockford, Ill.	Nov. 18
Dec. 1	Steam Distributing System —Norfolk, Va.	Nov. 25
Dec. 2	Mezzanine Floor — Chicago, Ill.	Nov. 18
Dec 6	Mailing Vestibule, etc. — Spartansburg, S. C.	Nov. 18
Dec. 6	Smoke Stack—Washington, D. C. Adv. Nov. 25.	Nov. 25
Dec. 8	Remodeling Post Office — Kalamazoo, Mich.	Nov. 25
Dec. 9	Surface Drainage System —Galveston, Tex.	Nov. 18
Dec. 10	Mailing Vestibule—Battle Creek, Mich.	Nov 25
Dec. 10	Roofing and Repainting—Phila., Pa.	Nov. 25
Dec. 15	Radio Building—Port Arthur, Tex.	Nov. 25
Dec. 15	Hydraulic Turbine—Florence, Ala. Adv. Nov 18 and 25.	Nov 25
Dec. 15	Gate and Valve Operating Machinery—Louisville, Ky. Adv. Nov. 18 and 25.	Nov. 25
Dec. 16	Alterations, Repairs, Plumbing, etc.—Covington, Ky.	Nov 25
Dec. 20	Steel Dump Scows—Louisville, Ky.	Nov. 18

MISCELLANEOUS

Nov. 29	Underground Cables—New York, N. Y.	Nov. 18
Dec. 1	Heating Work—Central Islip, New York, N. Y.	Nov. 11
Dec. 1	Refined Asphalt, Binder, Stone, etc. — Brooklyn, N. Y.	Nov 25
Dec. 10	Water Tube, Boilers and Equipment — Milwaukee, Wis. Adv. Nov. 18 and 25.	Nov. 25
Dec 11	Dock Wall—Buffalo, N. Y. Adv. Nov. 18 and 25.	Nov. 18
Jan. 26	Wall—Chesterville, Ont.	Nov. 25

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Pa., Altoona—City Comrs. plan to build 30 x 60 ft. concrete reservoir, 15 ft. deep, 200,000 gal. capacity, on 31st Ave. and 12th St., also lay 3,500 ft. 8 in. pipe and install 2 electrically driven, automatically controlled pumps. About $20,000. H. G. Hinkle, city mgr. E. D. Hain, City Hall, engr.

Md., Frostburg—City voted $250,000 bonds to improve water supply system.

N. C., Franklinton—Town plans to build new waterworks system. About $115,000. G. L. Cooke, clk.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Pa., Sharpsburgh (Pittsburgh P. O.)—Boro received bids Nov. 15, building pumping station from Pitt Constr. Co., Fulton Bldg., $41,900; D. T. Riffle, Keenan Bldg., $45,763; Ft Pitt Constr. Co., Martin Bldg., $46,370; Dravo Contg. Co., Diamond Bank Bldg., $49,000; J. F. Casey Co., Union Arcade Bldg., cost plus percentage basis. All above in Pittsburgh.

Waterworks (Continued)

★**O., Dayton**—Comrs. Montgomery Co. let contract furnishing and laying 30,000 ft. 4-18 in. c.i. water mains in Mt. Auburn Dist., to C. J. Wetzel, 146 Washington St., $195,031. Noted July 15.

★**Minn., Cloquet**—City let contract building water mains and sewers in H Ave. and Laurel St., to Pasret Constr. Co., 308 Sellwood Bldg., Duluth, $12,554.

Sewers

PROPOSED WORK

N. J., Glen Rock (Ridgewood P. O.)—Boro. receives bids in March, building 6 mi. 8-18 in. sewers and sewage disposal plant. About $300,000. H. J. Harder, Paterson, engr.

N. C., Franklinton—Town plans to build sewerage system. About $45,000. G. L. Cook, clk.

O., Silver Lake (Cuyahoga Falls P. O.)—Village plans to build sewer in Hastings Ave., involving 2,100 ft. 8-36 in. vitr. pipe. About $22,000. E. A. Thewksbery, clk. C. W. Courtney, Leader-News Bldg., Cleveland, engr.

Mich., Detroit—City had plans prepared for Michigan Ave. Sewer from Westfield Ave. to point 100 ft. west of Lonyo Rd., involving 2,301 ft. 5-6 ft. cylinder, etc. C. W. Hubbell, city engr.

Wis., Ellsworth—City had preliminary plans prepared furnishing material, excavating and laying 2 mi. sewer in Main St., et al, involving 25,000 ft. 8-15 in. vitr. pipe. About $50,000. Druar & Milenowski, Globe Bldg., St. Paul, engrs.

Ia., Ames—City opens bids in February, building sewage disposal plant and outfalls, to include mains, tank and pumping station. About $125,000. Former bids rejected. P. F. Hophens, Ames, engr. Noted May 13.

Tex., Huston—City voted $100,000 bonds to build sanitary sewerage system. J. C. McVea, city engr. Noted Oct. 14.

Ore., Portland—City had plans prepared and soon receives bids building sewers in Stephen to East 60th Sts., cost $1,474; Polk to Fessenden Sts., $6,531; East 20th St. from Prescott to Alberta Sts., $4,804; Fowler Ave. to proposed sewer of Lombard St. and Willis Blvd., $9,265; Delaware Ave. and Kenton Blvd. Trunk System, $107,783; Killingsworth Ave. and Walnut Park System, $30,016; 52nd St. S. E. and 42nd Ave. System, $13,993; Killingsworth Ave. and Vernon Ave. System, $28,802; Holman St. and East 14th St. System, $52,208. O. Laurgaard, 155 Royal Ct., city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Chicopee**—F. P. Cobb, city engr., let contract completing, Willimansett sewer in McKinstry Ave. and Meadow Rd., segmental block, to D. H. Young, Willimansett. About $165,000. Noted Nov. 4.

★**N. Y., Syracuse**—City let contract building sewer in Hiawatha St., to J. Young, Bastable Blk., $258,551. Noted Nov. 18.

N. J., Paterson—Passaic Valley Sewerage Comn., 128 Market St., Newark, received bids Nov. 16, for earth excav. and refilling in trench for 16 in. c.i. pipe, for portion of Sect. 21, North, Prospect St. Branch Sewer, from Arnolt-More, Inc., 45 Clinton St. Newark, $12,464; L. B. Harrison & Co., 141 Bway., New York City, $31,465; Culp & Co., 386 East 32nd St., $33,448. Noted Nov. 4.

Mich., Detroit—City received bids furnishing labor and material, except iron manholes, rings and covers, buildings 3rd Ave. Sewer (a) Sect. 4, Gubson, Lysander and Commonwealth Aves., from Calumet to Kirby Aves., involving 4,130 ft. 6 ft. 9 in. and 9 ft. 6 in. cylinder, etc., (b) Sect. 5, Commonwealth, Kirby and Marquette Aves., 2,696 ft. 3 x 4 ft. 6 in. 9 ft. cylinder, from J. A. Mercier, 216 Hammond Bldg., (a) $231,975, (b) $127,572; R. A. Mercier, 746 Hammond Bldg., (a) $282,675, (b) $162,420; Jaynes & Affeld, 1208 Ford Bldg., (a) $328,547, (b) $189,220.

Mich., Detroit—City received bids furnishing labor and material for building, finishing and backfilling (a) Lateral Sewer 3,300, (b) 3,314, (c) 3,377, (d) 3,385, (e) 3,386, from Western Constr. Co., 1208 Ford Bldg., (a) $35,361, (b) $29,990, (c) $11,992; Liberty Constr. Co., 917 Chamber of Commerce, (a) $35,740; R. D. Baker, 1454 Penobscot Bldg., (a) $38,000, (c) $13,000, (e) $3,883; W. Blanck & Co., 827 Ford Bldg., (b) $31,630; J. S. Ventrelli, 400 Penobscot Bldg., (b) $32,180, (d) $4,291; Lennane & McIlvenna, Book Bldg., (c) $11,000, (d) $5,750, (e) $3,750; McCordic Constr. Co., Royal Oak, (d) $4,000; R. & S. Constr. Co., 393 Hendricks St., (e) $3,900. Noted Nov. 11.

★**Mich., Detroit**—Dept. Pub. Wks., City Hall, will build Gratiot Ave. Sewer from point 1,100 ft. northeast of Glenfield Ave. to Joann Rd. About $425,000. Work will be done by day labor. Noted Nov. 11.

★**Wis., Fond du Lac**—City let contract furnishing material, excavating and laying 1.1 mi. sanitary and storm sewers in Brooke, Russel, Butler, Hickory, Walnut and West Sibley Sts., to R. Bernett, 389 4th St. About $30,000.

★**Wash., Yakima**—City let contract building concrete sewers in Main and other downtown streets, to R. M. Hardy, Yakima, Sect. D, $54,215, Sect. E, $45,742.

Ore., Portland—City received bids building sewers in East 66th and Stanton Sts., from E. Daruff, concrete pipe, $11,000; Portland Realty & Trust Co., Ry. Exch. Bldg., cement pipe, $12,647; J. F. Shea, 6 North 2nd St., vitr. pipe, $15,043.

Bridges

PROPOSED WORK

North Carolina—State Highway Comn., Raleigh, soon receives bids building 4 bridges on Federal Aid Project 61, New Hanover Co., structural steel with creosoted wood flooring and asphalt wearing surface, cost $83,000; 32 small bridges (16-200 ft. long) on Federal Aid Project 99-"B", Chatham Co., rein.-con., $125,000. W. S. Fallis, state highway engr.

Ga., Blackshear—Pierce Co. plans to build 343 ft. rein.-con. bridge and 8.93 mi. sand clay road. About $130,000. A. W. McWhonter, Waycross, engr.

Ga., Darien—McIntosh Co. plans to build 4,500 ft. bridge over Altamaha River, wood flooring, with 4 mi. approach. Work also includes grading and resurfacing 5 mi. road with shell. About $136,430. B. H. Graff, 401 Natl. Bank Bldg., Savannah, engr.

Mich., Bad Axe—State Highway Comn., at office Bd. Rd. Comrs. Huron Co., rejected bids building substructure of State Reward Bridge 321.501, over Pigeon River, McKinley Twp. Contract for steel superstructure let to Amer. Bridge Co., along tracks of Michigan Central R.R. and Beecher St., $6,455. Noted Oct. 28.

Mich., Detroit—City having plans and estimates made for removing present structure, fabricating and erecting structural steel work, furnishing and placing necessary castings, for 100 ft. bridge, 40 ft. wide, over tracks of Michigan Central Ry., on Howard St. involving rein.-con. flooring and Gunite covering for exposed steel surface. About $55,000. J. Reid, Div. Grade Separation and Bridges, engr.

Wis., Sheboygan—City voted $200,000 bonds to build concrete bridge on 8th St. C. U. Boley, city engr.

Wis., Eau Claire—City and State plan to rebuild 475 ft. bridge on Madison St. About $225,000. J. T. Hurd, city engr.

Kan., Lawrence—Lawrence Co. having plans prepared by B. L. Wolf, Engr., Lawrence, for Belvoir Bridge, to have 150 ft. steel span and rein.-con. abutments.

Tex., Houston—City voted $425,000 bonds to build several bridges. J. C. McVea, city engr. Noted Oct. 14.

BIDS DESIRED

S. C., Florence—Until Nov. 29, by State Highway Comn., Columbia, building bridge on Federal Aid Project 47, Florence Co., involving 188 cu.yd. dry and 293 cu.yd. wet excav., 23,068 lb. steel reinforcement, 2,730 lin.ft. untreated piling, 113.7 cu.yd. Class "A," 138.1 cu.yd. Class "B" and 94.2 cu.yd. Class "C" concrete. Florence Co. will appropriate toward cost. W. S. Lewis, Florence, engr.

Ga., Bainbridge—Until Feb. 7, by M. G. Harrell, chn. Decatur Co. Comrs., building concrete bridge over Flint River. About $250,000. E. J. Smith, Thomasville, engr.

Ga., Greensboro—Until Dec. 1, by Bd. Comrs. Rds. and Revenues Greene and Putnam Counties, building concrete and steel bridge over Oconee River, being part of Federal Aid Project 67, Contract 3. Work involves 741.24 cu.yd. Class "A" 171.75 cu.yd. Class "B" and 53 cu.yd. Class "C" concrete, 2,649 lin.ft. concrete piles, 125,739 lb. structural steel in spans, 50,271 lb. structural steel stringers, 83,808 lb. reinforcing steel, 74.2 cu.yd. wet and 32 cu.yd. dry excav., 1,344.65 sq.yd. bituminous pavement. R. T. Goodwyn, Court House, Athens, div. engr.

Ga., Greensboro—Until Dec. 1, by Bd. Comrs. Rds. and Revenues, Greene Co. building concrete and steel bridge across Richland Creek, part of Federal Aid Project 67, Contract 3. Work involves 17.2 cu.yd. wet and 48.6 cu.yd. dry excav., 5.6 cu.yd. Class "A" and 18.1 cu.yd. Class "B" concrete, 972.1 lb. reinforcing steel, 8,325 ft. lumber, 5,100 lb. fabricated steel, 32,250 lb. structural steel stringers, 1,515 lb. galvanized pipe and fittings, etc. R. T. Goodwyn, Court House, Athens, div. engr.

S. C., Manning—Until Dec. 8, by Comrs. Clarendon Co., building several creosoted timber bridges on the Manning-Turbeville and Manning-Paxville Rds., total length 1,134 ft. Lee, Pennell & Murray, Sumter, engrs. Noted Oct. 21.

Fla., White Springs—Until Dec. 10, by State Rd. Dept., Tallahassee, building 228 ft. steel truss bridge, over Suwanee River, near here, to have rein.-con. abutments and 20 ft. clear roadway, involving 503 cu.yd. Class "A" concrete, 34,800 lb. reinforcing and 410,000 lb. structural steel, etc. C. A. Browne, Tallahassee, engr.

Mich., Detroit—Until Dec. 17, by Dept. Pub. Wks., building Belle Isle Bridge, 2,200 ft. long, 84 ft. wide, to have 20 concrete and steel spans resting on pile foundations. Bids to be received on 4 groups, (a) involving 26,000 cu.yd. excav., 345,000 lin.ft. wood piling, 34,700 yd. rein.con. footings, 903,000 lb. reinforcing steel, together with docks, sewers, cofferdams, etc.; (b) 3,300 ton structural steel, 20,000 lb. bronze bearings; (c) 28,000 cu.yd. rein.-con., 22,900 sq.yd. concrete paving base, 1,980,000 lb. steel, 74,000 lin.ft. wooden piling, 3,000 cu.yd. wet and dry excav., 220,000 sq.ft. waterproofing, sewers, drains, precast concrete lamp standards, etc.; (d) 4,160 lin.ft. metal handrailing, 116 lamp frames. About $3,000,000. Esselstyn, Murphy & Hanford, 810 Marquette Bldg., engrs. Noted Nov. 11.

Kan., Chapman—Until Dec. 7, by Bd. Comn., Dickinson Co. (Abilene), building 160 ft. bridge, 18 ft. wide, here. Alternate bids on steel truss bridge to have two 50 ft. and one 60 ft. girders or Marsh rein.-con. rainbow arch. About $46,000. L. J. Rees, Topeka, engr.

Kan., Topeka—Until Dec. 3, by Bd. Comrs. Shawnee Co., building four 20 ft. span slab bridges, 1-40 ft. T girder span bridge, rein.-con., cost $22,000; one 110 ft. steel span, $10,000; one 3 span bridge, to have two 30 ft. steel girders and 140 ft. span, known as High School Bridge, $30,000. A. C. Lagerwall, Topeka, engr.

Tex., Breckenridge—Until Dec. 3, by W. C. Veale, judge Stephens Co., building 229 ft. bridge, 44 ft. roadway, over Gonzales Creek, at foot of Walker St., to have six 31 ft. and one 43 ft. girders, piers, etc., 6 in. concrete flooring, concrete railing ornamental posts, etc. Work involves 1,249 cu.yd. structural excav., 1,119 sq.yd. bituminous concrete pavement flooring, 175,734 lb. reinforcing steel, 902.22 cu.yd. Class "A" and 201.16 cu.yd. Class "B" concrete, etc. About $78,000. Nagle, Witt-Rollins Eng. Co., co. engrs. Noted Nov. 4.

Man., Winnipeg—Until Dec. 14, by W. P. Brereton, city engr., building 515 ft. bridge over Assiniboine River, on Maryland St. Work involves 2,764 cu.yd. concrete in abutments, 4,526 cu.yd. concrete for arch, 5,164 cu.yd. dry, 2,163 cu.yd. wet and 325 cu.yd. rock excav., 160,000 ft. cofferdam, etc. About $300,000. J. F. Greene, Calgary, Alta, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Vt., Montpelier**—State Highway Dept. let contract building concrete and timber bridge, here, to F. H. Guilds, Springfield. About $15,000.

★**Mass., Greenfield**—Town and Franklin Co. let contract repairing timber bridge over Green River, between here and town of Deerfield, to E. C. Perry, 34 Federal St., Greenfield. About $15,000.

Bridges (Continued)

N. C., Kinston—Comrs. Lenoir Co. received bids building several 30 ft. rein.-con. span bridges, from Luten Bridge Co., Asheville, $62,263; Eagle Eng. Co., New Bern, $71,020; Porter & Boyd, Charlotte, $75,736. Noted Nov. 11.

★**Alabama**—State Highway Dept., Montgomery, let contract building two 175 ft. and two 120 ft. steel spans over Tallapoosa River, near Judkins Ferry, Montgomery and Elmore Counties, to Virginia Bridge & Iron Co., Roanoke, Va., $59,589; 5 concrete piers with 451 lin.ft. concrete approaches, to Sartan, Smith & Dobson, Montgomery, $103,344. Noted Nov. 4.

★**Michigan**—State Highway Comn. Lansing, let contract building Trunk Line Bridge 771,603, over Black Creek, Kenochee Twp., to B. C. Lord, Clayton, $32,550. Noted Nov. 4.

★**Okla., Enid**—City let contract building rein.-con. bridges over Boggy Creek on South Washington and South Adams Sts., to Hyde Constr. Co., Enid, $11,250 and $15,137 respectively. Noted Sept. 30.

Streets and Roads

PROPOSED WORK

Mass., Lynn—City plans to pave various streets. About $50,000. W. L. Vennard, city engr.

W. Va., Grafton—Comrs. Taylor Co. soon receive bids building 2 mi. Blueville-Thornton Rd., waterbound macadam. About $54,000. J. A. Sinsel, co.-engr.

North Carolina—State Highway Comn., Raleigh, soon receives bids improving 3.71 mi. Federal Aid Project 33, between Mt. Gilead and Wadeville, Montgomery Co., involving 1 acre clearing and grubbing, 9,200 cu.yd. common and 700 cu.yd. rock excav., 652 ft. 18-24 in. terra cotta pipe, 61 cu.yd. cement rubble masonry, 8,750 cu. yd. top soiling, etc. About $16,000. W. S. Fallis, state highway engr.

N. C., Burgaw—Comrs. Pender Co. plans to build 15 mi. New Bern-Wilmington Highway, 16 ft. wide, gravel, cost $75,000; 20 mi. Wilmington-Fayetteville Rd., 16 ft. wide, gravel, $135,000. H. C. Scott, Burgaw, engr.

N. C., Dobson—Comrs. Surry Co. plan to build roads. About $75,000. H. Wolfe, clk.

N. C., Greensboro—Guilford Co. election Dec. 14, to vote on $2,000,000 bonds to build roads.

S. C., Columbia—Comrs. Richland Co. plan to build hard surfaced roads in spring. About $2,000,000. J. R. Pennell, Columbia, engr.

Ga., Columbus—City plans to pave various streets. About $500,000. S. Goody, city engr.

Fla., Vero—Town plans election to vote on $40,000 bonds to build 3 mi. asphalt road, 24 ft. wide. Address the Mayor.

Ill., Marion—Carterville Twp., Williamson Co., having plans prepared building 1½ mi. concrete road, 10 ft. wide, south from Carterville. About $50,000. C. M. Sherertz, Marion, engr.

Wis., Green Lake—Green Lake Co. plans to improve Princeton-Montello Rd. from city limits of Princeton westerly, 16 ft. wide, gravel, cost $12,000; Princeton-Neshkoro Rd. from city limits of Princeton north, 16 ft. wide, gravel, $7,500; Princeton—Neshkoro Rd., 16 ft. wide, gravel, $16,500. D. C. Williams, comr.

Ia., Clinton—City plans to pave 6 blocks Main St. About $50,000. L. S. Abbott, city engr.

Ia., Marshalltown—Marshall Co. opens bids in December paving 6 mi. Lincoln Highway, 1½ mi. east and west, and north and south on 3rd Ave. N., and south on Center St. S., 18 ft. wide. About $200,000. H. O. Hickok, Marshalltown, engr.

Minn., Red Lake Falls—Red Lake Co. voted $250,000 bonds to improve roads next year. H. E. Palmer, Red Lake Falls, engr.

South Dakota—State Highway Comn., at office of Clay Co., Vermilion, received bids grading and draining 13.034 mi. Yankton-Vermilion Rd., 36 ft. wide, Federal Aid Project 67, Clay Co., from Stevens Bros., Piedmont Bldg., St. Paul, Minn., $125,004; G. W. Humphrey, Aberdeen, $126,772; W. R. Shipman Constr. Co., Iowa Bldg., Sioux City, Ia., $137,359. Above bids rejected. F. W. Schreiber, Pierre, state highway engr. Noted Oct. 21.

South Dakota—State Highway Dept., Yankton, received bids grading and draining 13.11 mi. Yankton-Vermilion Rd., 36 ft. wide, Federal Aid Project 65, Yankton Co., from Steven Bros., Piedmont Bldg., St. Paul, Minn., $67,656; W. R. Shipman Constr. Co., Iowa Bldg., Sioux City, Ia., $73,035; G. W. Humphrey, Aberdeen, $80,823. Above bids rejected. F. W. Schreiber, Pierre, state highway engr. Noted Oct. 21.

Montana—State Highway Dept., Helena, rejected bids building 5 mi. Federal Aid Project 88, Sanders Co. About $30,000. Noted Oct. 28.

Missouri—State Highway Dept., Jefferson City, plans to build 8.24 mi. Potosi-Steelville Rd., between Walton and Breton Twps., Federal Aid Project 160, Washington Co., involving 48,000 cu.yd. earth and 700 cu.yd. rock excav., construction of culverts, cost $43,093; 7.2 mi. Lamai-Springfield Rd. (Rock Prairie Twp. Sect.), Federal Aid Project 159, Dade Co., 150 cu.yd. rock and 25,478 cu.yd. earth excav., 43,488 sq.yd. macadam surfacing, 16 culverts, etc., $37,640; 7.7 mi. Lamai-Springfield Rd., (Polk Twp. Sect.), Federal Aid Project 159, Dade Co., 500 cu.yd. rock and 26,926 cu.yd. earth excav., 19 new culverts, extensions to 4 old culverts, 1 concrete bridge, to have two 20 ft. spans, $25,240; 7.21 mi. Springfield-Hollister Rd., Federal Aid Project 134, Stone Co., 19,165 cu.yd. earth excav., 19,373 sq.yd. gravel surfacing, 2.68 cu.yd. Class "B" concrete, 270 lb. reinforcement for concrete masonry, 83.2 cu.yd. cement and 55.5 cu.yd. dry rubble masonry, etc., $18,355; 1.75 mi. East and West Rd., Federal Aid Project 164, Putnam Co., 3,000 cu.yd. earth excav., 15,840 sq.yd. brick pavement, $85,239; 9.6 mi. Lamai-Springfield Rd. (Center Twp. Sect.), Federal Aid Project 159, Dade Co., 500 cu.yd. rock and 30,000 cu.yd. earth excav., 23,440 sq.yd. gravel surfacing, 19 new culverts, extensions to 10 old culverts, $31,519.

Missouri—State Highway Dept., Springfield, received no bids Nov. 12, building 16.54 mi. Sect. A and 14.79 mi. Sect. B Oklahoma-St. Louis Rd., 24 ft. wide, Federal Aid Project 150, Greene Co., cost $111,268 and $110,256, respectively. Noted Nov. 4.

Tex., Anahuac—Chambers Co. rejected bids received Nov. 8, grading, surfacing and draining 11.3 mi Highway 35, Turtle Bayou Rd., 14 ft. wide. About $130,081. H. J. Walger, Orchard, co. engr. Noted Oct. 21.

Tex., Houston—City voted $200,000 to pave various streets. J. C. McVea, city engr. Noted Oct. 14.

Tex., Vernon—Chillicothe Comrs. Precinct Wilbarger Co., voted $50,000 bonds to build roads. J. B. Nabors, co.-engr.

Okla., Dewey—City had plans prepared and will receive bids in spring grading and paving 15½ blocks 7th, 9th, 10th, 11th, 12th and Shawnee Sts., 24 and 30 ft. wide, involving 16,130 sq. yd. concrete, 10,300 lin. ft. concrete curbing and 2,900 cu. yd. earth excav., etc. Wood & Witten, Tulsa, engrs.

Okla., Hartshorne—City had preliminary plans prepared by V. V. Long & Co., engrs., Colcord Bldg., Oklahoma City, paving Dist 3, involving 15,000 sq.ft. concrete. About $75,000.

Okla., Weatherford—City having surveys made by V. V. Long & Co., engrs., Colcord Bldg., Oklahoma City, for paving 13 blocks. About $181,000.

Ore., Portland—City soon receives bids grading and paving Greeley St. from Willamette Blvd. to Killingsworth Ave., cost, $7,647; Woodward Ave. from Grand Ave. to Milwaukee St., $27,146. O. Laurgaard, 155 Royal Ct., city engr.

Ont., Ottawa—Suburban Rds. Comn. plans to surface 4 mi. Marivale Rd. and 4 mi. Montreal Rd., asphalt. About $175,000. A. Hay, Thistle Bldg., engr.

Ont., Ottawa—Suburban Rd. Comn., Thistle Bldg., plans to widen and surface 5 mi. Metcalfe Rd., asphalt. About $150,000. A. Hay, Thistle Bldg., engr.

Ont., Pembroke—Renfrew Co. sold $150,000 bonds to build roads. R. J. Rooney, clk.

BIDS DESIRED

Maryland—Until Nov. 30, by State Rds. Comn., Baltimore, graveling section state highway from end of Contr. CH-15 to Benedict for distance of 3.9 mi. J. N. Mackall, chn.; advertised in this issue.

Ga., Greensboro—Until Dec. 1, by Rd. Comrs. Rds. and Revenues Greene Co., improving Eatonton-Greensboro Rd., part of Federal Aid Project 67, Contract 2. Work involves .7808 acres clearing and grubbing, 23,242.2 cu.yd. common and 100 cu.yd. rock excav., 932.7 cu.yd. top soil surfacing and 196.7 tons rip-rap. R. T. Goodwyn, Court House, Athens, div. engr.

Indiana—By Rd. Co. Comrs. building roads in following counties:

Dec. 4, Vigo Co., Terre Haute, Wallace Ave. Rd., Harrison Twp., gravel; Fruit Ridge Ave. Rd., Harrison Twp., gravel; F. S. Hawley Rd., Harrison Twp., gravel; Ft. Harrison Rd., Harrison Twp., gravel. C. M. Lee, aud.

Dec. 7, Boone Co., Lebanon, T. W. Padgett et al. Rd., Marion Twp., gravel. I. Stephenson, aud.

Pulaski Co., Winamac, 15,750 ft. Dillard Berryman et al. Rd., Harrison Twp., gravel. J. C. Howe, aud.

Hancock Co., Greenfield, 14,690 ft. W. F. Kleiman et al. Rd., Buck Creek Twp. E. A. Cooper, aud.

Ill., Lockport—Until Dec. 2, by city, paving Hamilton St., et al. About $230,874. P. Yost, secy. Rd. Local Impvt.; advertised in this issue.

Ia., Creston—Until Dec. 8, by Comrs. Union Co., improving 14.503 mi. country highway, involving 177,999 cu.yd. earth excav., 10,866 ft. 6-12 in. tile, etc. G. A. Perry, Creston, engr.

Missouri—Until Dec. 2 (change of date), by State Highway Dept., California, building various sections of Southern Highway, State Aid Project S20.14, Moniteau Co., .98 mi. (Cole Co. line relocation), cost $10,381; .84 mi. (McGirk relocation), $3,025; .69 mi. Sect. A (Clarksburg Project), $3,240; .8 mi. (Sect. B Clarksburg Project), $3,557; .95 mi. (Brants relocation), ($4,692. Noted Nov. 14.

Missouri—Until Dec. 10, by State Highway Dept., Farmington, building 3.25 mi. state road from Madison Co. line toward Libertyville, State Aid Project S 20.13, St. Francois Co., involving 23,252 cu.yd. earth and 1,415 cu.yd. rock excav., 1,894 cu.yd. borrow, 138.6 cu.yd. Class "B" and 40.3 cu.yd. Class "C" concrete masonry, 960 lb. reinforcement for concrete masonry, 22,866 sq.yd. specification C gravel pavement, etc. About $34,038.

Missouri—Until Dec. 7, by State Highway Dept., Nevada, building 2.06 mi. state road from Horton northward, State Aid Project S 20.12, Vernon Co., involving 5,123 cu.yd. earth excav., 18,074 cu.yd. borrow, 34.1 cu. yd. Class "B" and 2.8 cu.yd. Class "C" concrete masonry, 2,501 lb. reinforcement for concrete masonry, etc., cost $15,467; rein.-con. skew slab superstructure, on Sta. 280 plus 00, 2.1 cu.yd. Class "A" and 9.2 cu.yd. Class "B" concrete, 5,780 lb. reinforcing steel, etc., $4,461; rein.-con. slab superstructure, on Sta. 20 plus 45, 2.1 cu. yd. Class "A" and 152.3 cu.yd. Class "B" concrete, 10,650 lb. reinforcing steel, $6,999, both on above project.

Missouri—Until Dec. 3, by State Highway Dept., Shelbyville, building 1.1 mi. state road from Hunnewell westward, State Aid Project S 20.17, Shelby Co., involving 23,861 cu.yd. earth excav., 50,000 cu.yd. per 100 ft. overhaul, 103.6 cu.yd. Class "B" concrete masonry, 7,457 lb. reinforcement for concrete masonry, etc. About $27,200.

Tex., Littlefield—Until Nov. 29, by W. C. Hopping, judge Lamb Co., grading, surfacing and draining 26.06 mi. Highway 7 from Hockley Co. line to Soudan, involving 384.5 cu.yd. Class "A" concrete, 34,823 lb. reinforcing steel, 33,973 cu.yd. natural roadbed surfacing, 2,599 cu.yd. borrow and 11,446 cu.yd. unclassified earth excav. About $70,000. C. L. Hasie Eng. Co., Amarillo, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Holbrook**—City let contract paving South Franklin St., concrete, to Powers Bros., 167 North Montello St., Brockton. About $20,000.

★**R. I., Providence**—Water Supply Bd., City Hall, let contract surfacing 3.4 mi. Plainfield Pike between Clayville and Foster, bituminous concrete, to Perini & Sons, Inc., Ashland, Mass., $103,270. Noted Oct. 28.

Streets and Roads (Continued)

N. Y., New York—H. Bruckner, pres. Bronx Boro., Municipal Bldg., Crotona Park, Tremont and 3rd Aves., received bids Nov. 18, regulating, etc., Sackett Ave. from Williams Bridge to Eastchester Rds., from Spadero Contg. Co., 827 East 217th St., $36,366, LaMura Contg. Co., $36,934, I. Cavaluzzo, $43,292; protecting with rock fill, outlet of sewer at White Plains Ave. and East River, from M. Delbalso, 1434 Bryant Ave., $3,250, S. Purificato, $4,450, P. Litchfield, $4,475. Noted Nov. 11.

★**Md., Cumberland**—City Council let contract grading various streets to K. C. Constr. Co., Cumberland, $31,060.

D. C., Wash.—Dist. Comrs., Dist. Bldg., received bids grading 16,500 cu.yd. Connecticut Ave. N.W. from Pierce Mill to Chapel Rds., from G. Hyman, West Virginia St. and Morse St., N.E., $0.49 per cu.yd.; G. B. Mullin Co., Inc., 1236 Upsur St., N.W., $0.53; W. F. Brenizer, 101 New York Ave., N.E., $0.65. Noted Nov. 11.

N. C., Pittsboro—Comrs. Chatham Co. received bids excavating, grading, draining and surfacing 24 mi. road between Cape Fear Twp. line, via Lexington, to Durham Co. line, from Lancaster & Son, Winston-Salem, $44,300; C. A. Helig, Winston-Salem, $46,800; M. Bland, $47,800. Noted Oct. 21.

★**S. C., York**—Comrs. York Co. and State Highway Dept., Columbia, let contract grading 4 mi. road from Fishing Creek to Chester Co. line 16 ft. wide to Austin Ritchie, Badin, N. C., $.47½ per cu.yd.

Alabama—State Highway Comn., Montgomery, received bids grading, draining and surfacing 18.16 mi. road from Guntersville to Boaz, Marshall Co., 2 in. penetration bituminous macadam, from A. F. Bearden, Birmingham, $550,422; C. G. Kershaw Constr. Co., Woodward Blk., $690,469; W. T. Taylor Constr. Co., Talladega, $717,729. Noted Oct. 21.

★**Ohio**—State Highway Comn., Columbus, let contracts grading, building bridges and culverts and paving roads in following counties

Belmont Co., Sect. "I" Barnesville-Woodsfield Rd., 2.061 mi., bituminous macadam, to C. E. Wilson, Barnesville, $74,015.

Hamilton Co., Sect. "X" Glendale-Milford Rd., 2.561 mi., concrete, to Gradison Constr. Co., 1st Natl. Bank Bldg., Cincinnati, $153,941.

Licking Co., Sect. "F" Newark-Mt. Vernon Rd., 5.030 mi., with plain concrete, to Newark Paving & Constr. Co., Newark, $242,117.

Montgomery Co., Sect. "P" Dayton-Troy Rd., 1.099 mi., brick, to R. H. Shafer Co., Columbus, $58,842.

Sects. "Q" and "Vandalia" Dayton-Troy Rd., 1.707 mi., concrete, to Clifton Hoolihan, Dayton, $90,881.

Seneca Co., Sect. "D-1" Columbus-Sandusky Rd., 2.038 mi., bituminous macadam, C. M. Gray, Waterville, $77,919.

Sect. "R" Lima-Sandusky Rd., 2.167 mi., bituminous macadam, to J. H. Murphy & Son, Burgeon, O., $76,394.

Sect. "F-1" Bucyrus-Tiffin Rd., 0.884 mi., bituminous macadam, to J. W. Carey, Ada, $31,004.

Sect. "G" Tiffin-New Haven Rd., 2.007 mi., bituminous macadam, to D. W. Botkins & Son, Columbus, $58,136.

Putnam Co., Sect. "A" Findlay-Delphos Rd., constructing new concrete block floor and waterbound macadam approaches to bridge, to Standard Eng. Co., Toledo, $2,546.

Noble Co., Sect. "N" Cambridge-Caldwell Rd., 3.594 mi., grading roadway and constructing drainage structures, to W. M. Gray, Columbus, $80,032.

Fulton Co. Sect. "L-1" Archbold-Fayette Rd., 1.018 mi., grading roadway and constructing bridges and culverts, to C. W. Gray, Waterville, $26,314.

Geauga Co., Sects. "V-2" and "W" Chagrin Falls-Greenville Rd., 9.4 mi., grading roadway and constructing bridges and culverts, Henderson Bros., Chagrin Falls, $74,806.

Meigs Co., Sect. "O" Pomeroy-Athens Rd., 3.303 mi., grading roadway and constructing bridges and culverts, McElfresh, Danford Co., Caldwell, $87,117.

Lorain Co., Sect. "N" Twinsburg-Elyria Rd., constructing concrete superstructure to bridge, to Schroeder & Lafgren, Lorain, $2,248. Noted Nov. 18.

★**O., Cleveland**—Wallace Realty Co., Engineers Bldg., let contract grading Randall Heights, involving 30,000 cu.yd. earth excav., to Sanbourne & Brown, c/o owner. About $25,000.

★**Michigan**—State Highway Dept., dist. office Escanaba, let contract grading and surfacing 5.971 mi. Federal Aid Project 3, portion of Sect. C, 15 ft. wide, Baraga Co., to M. J. Bacco, Iron Mountain, $26,536. Noted Nov. 4.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 3.492 mi. State Trunk Line Rd. 13-9, Sect. A, 16 ft. wide, Wexford Co., to Pierson & Allsmede, Hersey, $58,385. Work involves 33,306 cu.yd. earth excav., at $0.70 per cu.yd., 1,377 lb. steel reinforcement, $0.10, 32,579 sq.yd. base and top course gravel, $0.55 and $0.42 respectively, 11 cu. yd. 1:2:4 and 55.4 cu.yd. 1:3:6 concrete, $30 and $25 respectively, etc. Noted Oct. 28.

★**Michigan**—State Highway Dept., Muskegon, let contract grading and draining 7.936 mi. Federal Aid Project 43, Sect. C, Muskegon Co., to Kalamazoo Constr. Co., Kalamazoo, $49,577. Noted Oct. 28.

★**South Dakota**—State Highway Comn., at office of Bon Homme Co (Tyndall), let contract grading and draining 12.942 mi. Tyndall-Lake Andes Rd., 36 ft. wide, Federal Aid Project 38, Bon Homme Co., to Peterson, Shirley & Gunther, Omaha, Neb., $48,811. Noted Oct. 21.

Tex., Fredericksburg—Gillespie Co. received bids Nov. 11, grading, surfacing and draining 9.99 mi. Highway 9 from here south to Kendall Co., line from B. S. Davison, 1110 Harold Ave., Houston, $62,037; Rice & Winder, Cameron, $67,915; M. M. Craven, Bellaire, $69,883. Noted Oct. 21.

★**Tex., Rockport**—Aransas Co. let contract improving 9.51 mi. Rockport-Aransas Rd., 16 ft. wide, (a) reshaping shoulders, grass sodding and surfacing with mud shell, (b) furnishing mud shell, to Miller Constr. Co., Port Lavaca, (a) $51,395; Heldenfels Bros., Rockport, (b) $16,124. Noted Oct. 28.

★**Ariz., Tucson** — Pima Co., Highway Comn., New City Hall, let contract building 6 mi. Sect. 2 Arivaca Rd., to R. Mackay & Co., 312 East 4th St., $57,327. Pima Co. furnishes culvert pipe, cement and steel. Noted Oct. 28.

★**Wash., Dayton**—Columbia Co. let contract macadamizing 5 mi. Hogeye Whisky Rd., to G. L. Stickler, Dayton, $36,050.

★**Wash., North Yakima**—Yakima Co. let contract paving 4 mi. Wapato Donald Highway, to R. M. Hardy, Yakima, $76,584. Noted Nov. 11.

★**California** — State Highway Comn., 515 Forum Bldg., Sacramento, let contract improving Route 10, Sect. B, Div. 6, Kings Co. from westerly boundary to 1 mi. north of Lemoore, to Bates & Borland, Oakland Savings Bank, Oakland. Noted Nov. 11.

★**California**—State Highway Comn., 515 Forum Bldg., Sacramento, let contract improving 5.9 mi. Route 15, Sect. B, Div. 3, between Wadsworth Canal and Yuba City, Sutter Co., to J. Doyle, San Jose. Noted Nov. 11.

★**Cal., Modesto**—City let contract paving various streets, involving 9,553 sq.yd. Warrenite bitulithic on 2 in. concrete foundation, to Standard Paving Co., 9th and N Sts.

Cal., San Diego—Common Council received bids Nov. 15, paving Lytton and Voltaire Sts., Chatworth and Catalina Blvds., from Fairchild-Gilmore-Wilton Co., 25 14th St., $98,684. Work involves 14,419 cu.yd. excav. at $1.18 per cu.yd. 14,001 cu. yd. embankment, $0.01, 316,965 sq.ft. Warrenite bitulithic wearing surface on asphalt concrete base, $0.239, 247 lin.ft. concrete curbing, $0.70, 3,528 sq.ft. oiled guttering, $0.10, double strength cement pipe culverts, catch basins, etc., $3,960, etc. Noted Nov. 4.

Excavation and Dredging

PROPOSED WORK

Ia., Tama—Drainage—Tama Co. plans to build 2 mi. drainage project north of here. About $16,000.

Wis., Fond du Lac—Drain—Fond du Lac Drainage Bd. having preliminary surveys made excavating and laying 30,000 ft. large drain tile, about 16 in. pipe at outlet, in Fond du LIac Co. About $25,000. L. M. Schindler, 721 Clark St., Appleton, engr.

Wis., Waupaca—Drainage—Waupaca Co. rejected bids received Oct. 25, building D. D. 1. L. M. Schindler, 721 Clark St., Appleton, engr. Noted Oct. 21.

S. D., Woonsocket—Ditch—Comrs. Sanborn Co. rejected bids received Oct. 5 building Ditch 34. Work involves 385,000 cu.yd. open ditch excav. and 128,850 ft. 8-36 in. tile. Work may be readvertised. About $100,000. C. A. Trimmer, Madison, eng.

BIDS DESIRED

Ia., Clarinda—Ditch—Until Dec. 15, V. Freed, aud. Page Co., building ditch 4,800 ft. long, 2.4 ft. to 8.7 ft. deep, D. D. 18. A. S. Van Sandt, engr.

Ia., Rockwell City—Drainage—Until Nov. 30, by Bd. Supervs. Calhoun Co., furnishing labor and material building D. D. 245, involving 12,318 ft. 14-26 in. tile, etc. R. E. Dixon, aud.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Md., Baltimore** — Channel — Western Maryland Ry. Co., Charles and Saratoga Sts., let contract deepening to uniform depth 18 ft. and widening to 400 ft., channel leading into ferry slip of railway on Bear Creek shore, Sparrow Point, to Arundel Corp., 2 Pratt St. About $45,000.

★**Minn., Park Rapids**—Ditch—Hubbard and Cass Counties let contract building Judicial Ditch 1, involving 84,983 cu.yd. excav., 12.6 acres clearing, three 18 ft. timber bridges, etc., to Rood Constr. Co., Wisconsin Rapids, Wis., $17,769.

Ia., Emmetsburg—Drainage—Palo Alto Co. received only bid improving D. D. 123, involving 38,895 ft. 6-18 in. tile and 54,000 cu.yd. excav., from Berkler & McNulty, Emmetsburg.

★**Ia., Maquoketa**—Drainage Ditch—Jackson Co. let contract building drainage ditch between Sterling and Prophetstown, to Clark Constr. Co., Clinton. About $50,000.

Industrial Works

PROPOSED WORK

Me., Houlton—P. J Sullivan, 74 Broad St., Boston, is representing company which plans to build 1 story, 80 x 300 ft. frame, fertilizer plant. Private plans.

Mass., Dedham—Third Natl. Film Co., 67 Milk St., Boston, plans to build large plant and laboratory, here. Architect not selected.

Mass., New Bedford—F. W. Greene, Jr., 252 Union St., having sketches made by LaBrode and Bullard, archts., 251 Union St., for two 1 story garage and repair stations, on Mill and Ash Sts., respectively.

Mass., Springfield — Natl. Automobile Parking Co., 145 State St., having plans prepared by R. B. Warner, archt., 168 Bridge St., for 5 or 8 story, 100 x 200 ft. concrete, brick and steel garage, rein.-con. flooring, concrete foundation, on Dwight, East Court and New Sts. Cost between $500,000 and $700,000. O. P. Thompson, pres. Noted Sept. 30.

Conn., Devon—Belpedio & Co., 925 Main St., Bridgeport, plans to build 3 story, 60 x 200 ft., brick and mill construction plant, here. H. E. Koerner, 164 State St., Bridgeport, archt.

Conn., South Glastonbury—Wasuc Mills Co., plans to rebuild paper plant recently destroyed by fire. About $50,000. Architect not selected.

N. J., East Orange—Jephson-Scott Body Co., 24 Sterling St., had plans prepared by M. N. Shoemaker, archt., 15 Central Ave., Newark, for 2 story, 58 x 63 ft. factory, here. About $70,000.

Pa., Phila. — Kingan Provision Co., 8th and Callowhill Sts., plans to build 50 x 105 ft. addition to warehouse, concrete and brick. About $100,000. Architect not selected.

Pa., Pittsburgh — Methodist Episcopal Church, 6th and Smithfield Sts., having plans prepared by T. B. and L. Wolf, archts., Century Bldg., for 4 story, 50 x 100 ft. "Good Will Industrial" building on 28th St. and Liberty Ave. Cost between $90,000 and $100,000

Md., Baltimore—Maryland State Tobacco Warehouse plans to build concrete, brick and steel warehouse, concrete foundation, on Charles and Conway Sts. State appropriated $400,000 for project; will mature in spring.

Md., Baltimore—Red "C" Oil Mfg. Co., 410 Keyser Bldg., plans to build refinery and tanks, on Key Highway. About $250,000. W. W. Pagon, Lexington Bldg., engr.

Industrial Works (Continued)

W. Va., Huntington—Fordlette Engine Co. plans to build plant. About $100,000.

N. C., Kinston—City plans to enlarge power and light system. About $300,000. J. Dawson, mayor.

N. C., Raleigh—State Highway Dept. plans to build two 100 x 200 ft. timber structures, to be used as mechanical equipment shed and repair shop. About $75,000. W. S. Fallis, state highway engr.

N. C., Scotland Neck—City plans to build electric light plant. About $50,000.

Ga., Trion—Trion Co. plans to build 3 story, 25 x 40 ft., rein.-con., brick and steel addition to power house, rein.-con. flooring, concrete foundation. About $100,000. Jackson & Moreland, 387 Washington St., Boston, Mass., engrs.

Fla., Apalachicola—City voted $50,000 bonds to build electric light plant. J. H. Cook, mayor.

Fla., Tampa—Tampa Drug Co., Florida and Washington Sts., plans to build 4 or 5 story, 105 x 105 ft. wholesale drug house, rein.-con. and brick, rein.-con. flooring, on Pierce and Polk Sts. About $150,000.

O., Cleveland—See "Buildings."

O., Cleveland—B. Fenniger, Society for Savings Bldg., plans to build 1 story, brick and steel garage, brick foundation, on Superior Ave. near East 33rd St. About $50,000. Private plans.

O., Cleveland—Tenfel Bros., c/o C. E. Tousley, archt., 4500 Euclid Ave., had plans prepared for 1 story, 40 x 130 ft., brick and steel garage, brick foundation, on West 65th St. About $40,000.

O., Youngstown—Retail Grocers Assn., 1301 Wick Bldg., plans to build 2 story, 100 x 100 ft. bakery. About $80,000.

Ind., Columbus—Indiana Oil Refining Co. plans to build 1 story oil refinery, 1,000 bbl. capacity, brick and steel. About $500,000.

Mich., Detroit—Mildner & Eisen, archts., 924 Hammond Bldg., open bids about Dec. 10, building 3 story, rein.-con., brick and steel addition to plant, rein.-con. flooring, concrete foundation, on 14th St., for Newton Packing Co., 1041 14th St. About $75,000.

Mich., Detroit—L. Kamper, archt., 749 Book Bldg., opens bids about Dec. 8, building 3 story, rein.-con., brick and steel plant, rein.-con. flooring, concrete foundation, on Elmwood Ave., for Orling Bros., 522 Elmwood Ave. About $200,000. Noted Nov. 11.

Mich., Detroit—G. W. Graves, archt., 43 John R. St., opens bids about Dec. 10, building 1 story, 90 x 200 ft., brick and steel foundry, rein.-con. flooring, concrete foundation, for Zenith Fdry. Co., Miller Ave.

Ill., Chicago—Joseph Bros. Lumber Co., 3393 Archer Ave., plans to build 1 story, 75 x 150 ft., concrete and brick garage, concrete foundation. About $50,000. Architect not selected.

Ill., Chicago—W. E. Perry, archt., 64 East Van Buren St., soon lets contract building 150 x 180 ft., brick, concrete and steel garage, concrete foundation, on Monroe St. and Racine Ave., for Parmalee Transfer Co., 202 South Clark St.

Wis., Hartford—Storm King Mfg. Co. plans to build 2 story, 60 x 150 ft., rein.-con., brick and steel factory, brick foundation, on West Main St. About $100,000. C. Montgomery, mgr. Architect not selected.

Wis., Helenville—Blochowiat Diary Co., 1364 4th Ave., Milwaukee, plans to build 2 story, 80 x 140 ft., rein.-con., brick and steel factory, rein.-con. flooring, brick foundation, on Main St., here. About $75,000. Architect not selected.

Wis., Kaukauna—Kaukauna Motor Service Co. having plans prepared and opens bids about Dec. 1, building 4 story, 50 x 100 ft. garage and show room, brick, rein.-con. and steel, rein.-con. flooring, brick foundation, on 3d and Main Sts. About $75,000. Juul-Smith, Imig Bldg., Sheboygan, archts.

Wis., Kewaunee—Kewaunee Mfg. Co. preparing plans for 4 story, 24 x 102 ft., rein.-con., brick and steel factory, brick foundation, on Main St. About $50,000. Private plans.

Wis., La Crosse—Wisconsin-Minnesota Light & Power Co., 120 North 5th St., plans to build steam power plant, with 10,000 kw. capacity, and extend electric lines to Hokah, Minn., and Sparta. About $50,000. F. G. Felton, mgr.

Ia., Centerville—Albia Packing Co. had plans prepared for packing plant. About $125,000. C. W. Monroe, pres. Architect not announced.

Que., Montreal—Canada Heaters Co., Ltd., St. Laurent, plans to build 1 story, brick and steel plant, concrete foundation, here. About $250,000.

Que., Three Rivers—Wabasso Cotton Co. soon receives bids building 4 story, 75 x 100 ft. brick and steel plant, concrete foundation. About $125,000.

Ont., Brockville—Laing Produce & Storage Co., Water St. E., plans to build addition to plant here. About $400,000. J. G. Gardner, pres. Architect not selected.

Ont., Dungannon—Riverside Creamery Co. plans to rebuild plant destroyed by fire. About $65,000.

Ont., Goderich — Goderick Mfg. Co., Angelsea St., plans to build factory. About $80,000. A. Baechler, mgr.

Ont., Kincardine—Kincardine Evaporator Co. plans to rebuild plant recently destroyed by fire. About $60,000. W. McRorie, mgr.

Ont., London—Beatty Bros., York St., receives bids about March 1, building 2 story, 260 x 300 ft. rein.-con. addition to factory, on Chelsea Green. About $200,000. Private plans.

Ont., London—Utilities Comn. plans to build 2 story, 45 x 70 ft. substation on Cabell St. About $85,000. E. V. Buchanan, Hydro Office Bldg., engr.

Cuba, Havana—M. Diaz having plans prepared by Ophuls, Hill & McCreery, archts. and engrs., 112 West 42d St., New York City, for bottling plant here, concrete, brick, steel and stone, concrete foundation. About $1,000,000.

BIDS DESIRED

Ill., Chicago—Dubin & Eisenberg, archts., 139 North Clark St., receiving bids building 3 story, 48 x 100 ft., mill construction factory, concrete foundation, for M. Block & Son, 1123 Newberry Ave. About $50,000.

Ill., Waukegan—See "Buildings."

Wis., Fond du Lac — Sheboygan Dairy Products Co., South Water St., Sheboygan, and B. E. Mehner, archt., 8 East Division St., receiving bids and open same about Dec. 6, building 2 story, 60 x 112 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on South Main St., here. About $75,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., Keene**—A. E. Fish & Co., 8 Elm St., will build 3 story, 40 x 60 ft. iron and frame addition to factory, concrete foundation. Work will be done by day labor.

★**Mass., Charlestown** (Boston P. O.) — Charlestown Gas & Electricity Co., 27 Main St., let contract building 1 story, 40 x 50 ft. concrete, brick and steel substation, rein.-con. flooring, concrete foundation, on Salem St., to W. M. Bailey, 88 Broad St., Boston.

★**Mass., Sandwich**—Sagamore Co., 53 State St., Boston, let contract building 1 story pulp mill, brick and steel, rein.-con. flooring, concrete foundation, here, to T. Kelleher. About $100,000.

★**Conn., Versailles**—Federal Paper Board Co. let contract building 2 story, concrete, brick and steel addition to plant, rein.-con. flooring, concrete foundation, to H. Wales Lines Co., 134 State St., Meriden. About $250,000.

★**N. Y., Brooklyn**—B. Clayman, 37 Van Buren St., will build 1 story, 100 x 150 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on De Kalb Ave., near Tompkins Ave. About $40,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Forest Box & Lumber Co., c/o Gilbert & Ashfield, archts. and engrs., 350 Fulton St., let contract building 1 story, 100 x 140 ft., brick and steel factory, rein.-con. flooring, concrete foundation, at 400 Oakland St., to Barney & Ahlers, 110 West 40th St., New York City. About $50,000.

★**N. Y., Brooklyn**—Hub Knitting Mills, 1007 Buchman Ave., will build additional story, also 2 story side addition to factory, brick and steel, rein.-con. flooring, concrete foundation. About $50,000. Work will be done by day labor.

★**N. Y., Glendale** (Brooklyn P. O.)—Eastern Eng. & Constr. Co., c/o Gilbert & Ashfield, archts. and engrs., 350 Fulton St., Brooklyn, let contract building 1 story, 120 x 300 ft., shop, rein.-con. and brick, rein.-con flooring, concrete foundation, to Levering & Garrigues Co., 552 West 23d St., New York City. About $80,000.

★**N. Y., New York**—Baker & Williams Co., 126 Leroy St., let contract building 9 story, 75 x 100 ft. addition to warehouse, rein.-con. and steel, rein.-con. flooring, concrete foundation, at 110 Leroy St., to Cauldwell-Wingate, 381 4th Ave.

★**N. Y., New York**—A. L. Guidone, 52 Vanderbilt Ave., will build 2 story, 50 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Jerome Ave. and Bedford Park Blvd., Bronx. About $85,000. Work will be done by day labor.

★**N. Y., New York**—Kliegl Bros., 240 West 50th St., let contract building 4 story, 60 x 100 ft. electrical goods factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 321 West 50th St., to M. J. Conrady, 475 Greenwich St. About $65,000.

★**N. Y., S. I. West New Brighton**—Dept. Pub. Welfare, Municipal Bldg., New York City, let contract constructing addition to boiler house, at Sea View Hospital, here, to G. Colon Co., 81 East 125th St., New York City. About $42,000. Noted Nov. 4.

★**Pa., Meadville** — Phoenix Iron Wks., Mercer and Railroad Sts., let contract building 1 story, 50 x 300 ft. extension to factory and 5 story, 40 x 100 ft. extension to pattern works, brick and steel, brick foundation, to H. K. Ferguson Co., 6523 Euclid Ave., Cleveland. About $200,000.

★**Pa., Phila.** — Amer. Ice Co., 6th and Arch Sts., let contract building 2 story, 75 x 100 ft. plant, brick on 10th and Callowhill Sts., to Monaghan & Losse, 3016 Chestnut St. About $120,000.

★**W. Va., Beechbottom** (Wellsburg P. O.)—West Penn Power Co., Hartje Blk., Pittsburgh, Pa., let contract building 1 story power and storage plant, covering 10,000 sq.ft. floor space, concrete, brick and steel, concrete foundation, to Austin Co., Union Arcade Bldg., Pittsburgh. About $40,000.

★**N. C., Charlotte**—O. J. Thies let contract building 2 story, 46 x 146 ft. brick garage, to Thies, Smith Co., Charlotte. About $65,000.

★**N. C., Greensboro**—Carolina Steel & Iron Co. will build first unit of plant, 110 x 180 ft., steel. Work will be done by day labor.

★**S. C., Beaufort**—Seacoast Packing Co. let contract building 3 story, 85 x 110 ft. packing plant, rein.-con., concrete flooring, to Brooks Eng. Co., Moultrie, Ga. About $100,000.

★**O., Cleveland**—H. W. Morgan, 637 Bway., let contract building 2 story, 50 x 100 ft., brick and steel warehouse, brick foundation, at 1108 Central Ave., to A. A. Lane Constr. Co., 1869 East 55th St. About $75,000. Noted Nov. 4.

★**O., Cleveland**—Reliable Auto Top & Fender Co., 4310 Carnegie Ave., let contract building 2 story, 88 x 100 ft., rein.-con., brick and steel garage, rein.-con. flooring, brick and concrete foundation, at 8011 Lake Ave., to L. Heimberger, 15114 Detroit Ave. About $60,000.

★**O., Dayton**—Miami Ice Delivery Co., Ludlow Bldg., let contract building 1 story, 60 x 60 ft. ice plant, rein.-con., brick and steel, rein.-con. flooring, brick foundation, to Blanchard Bldg. Co., Dayton. About $50,000.

★**Ill., Chicago**—Independent Packing Co., 41st and Halstead Sts., let contract building 1 stroy, 75 x 125 ft., concrete and brick plant, concrete foundation, at 4119-23 Emerald Ave., to C. A. Juhl, 7759 South Lawrence Ave. About $50,000.

★**Ill., Chicago**—New Way Laundry, Montrose and Francisco Sts., let contract building 2 story, 64 x 152 ft., rein.-con., terra cotta and brick laundry, concrete foundation, to Great Lakes Constr. Co., 304 South Wabash Ave. About $100,000. Noted Nov. 4.

Industrial Works (Continued)

★**Ill., Chicago**—J. Press Sons, 300 North Halstead St., let contract building 1 story, 125 x 140 ft., concrete and brick factory, concrete foundation, at 3338-60 Normal Ave., to A. and E. Anderson, 19 South La Salle St. About $150,000.

★**Wis., Appleton**—Fox River Paper Co. let contract building 2 story, 26 x 165 ft. paper mill, to Appleton Constr. Co., Odd Fellows Bldg.

★**Ia., Ft. Dodge**—International Harvester Co., 606 South Michigan Ave., Chicago, Ill., let contract constructing 1 story, 80 x 170 ft., rein.-con., brick and steel motor truck service station, here, to Larson Constr. Co., Ft. Dodge.

★**Col., Denver**—Denver & Salt Lake R.R., Ideal Bldg., will build and equip 90 x 250 ft. railroad shop, frame superstructure, rein.-con. foundation, to replace one destroyed by fire. About $800,000. Work will be done by day labor. V. B. Wagner, engr. A. L. Cochran, purch. agt.

★**Col., Wellington**—Du Pont Sugar Co., 627 19th St., Denver, let contract building sugar factory, here, concrete and steel, to have 600 ton daily capacity, to Schwartz Eng. Co., 310 Mack Bldg., Denver. About $1,000,000.

★**Ont., Pembroke**—McGuire, Patterson & Palmer Ltd., 343 Dorchester St. W., Montreal, Que., let contract building concrete, brick and steel factory, concrete foundation, to Fraser Brace & Co. Ltd., 83 Craig St. W., Montreal, Que. About $5,000,000

Buildings

PROPOSED WORK

Vt., Montpelier—Office—Nat. Bldg. Life Insurance Co. plans to build large brick, concrete, stone and steel, on State St. Cram & Ferguson, 15 Beacon St., Boston, archts.

Mass., Cohasset — Municipal — City had sketches made by G. F. Newton, archt., 6 Beacon St., Boston, for 2½ story, brick and stone rock foundation. About $500,000.

Mass., Dorchester (Boston P. O.)—Theatre—Blue Hill Ave. Theatre Corp., c/o Funk & Wilcox Co., archts., 1148 Old South Bldg., Boston, plans to build 1 and 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Blue Hill and Woodrow Aves. About $200,000.

Mass., Great Barrington—Hotel—J. M. Vance, archt., 24 North St., Pittsfield, drawing plans for brick and concrete. About $150,000. Owners name withheld.

Mass., Springfield—Hotel—Oaks Hotel, Thompson and State Sts., had plans prepared by Associate Architectural & Eng. Co., 145 State St., for 4 story, brick and tile addition, containing 125 rooms and 65 baths. Cost to exceed $200,000.

Mass., Springfield—Office—Massachusetts Mutual Life Insurance Co., 500 Main St., plans to build large brick, steel and rein.-con. addition, on Main and State Sts. Architects not selected.

Mass., Ware — Hospital — Mary Lane Hospital rejected bids building 2 story, 40 x 120 ft. brick and concrete, on Main St. About $100,000; project indefinitely postponed. E. F. Stevens, 9 Park St., Boston, archt. Noted Oct. 21.

Mass., Whitinsville — School — Town of Northbridge, Whitinsville School Comn., plans to build addition. About $200,000. Architect not selected.

R. I., Newport — School — City rejected bids received Nov. 18, building 2 story, brick and concrete, rein.-con. flooring, concrete foundation, on Bway. and Vernon Sts., About $160,000. Project indefinitely postponed. T. S. L. Weaver, 14 Cranston Ave., archt. Noted Nov. 11.

Conn., Bridgeport—Club—Knights of Columbus, 460 Washington Ave., plans to build large addition on Washington Ave. and Congress St. Cost between $150,000 and $200,000. Architect not selected.

Conn., Hartford — Gymnasium, etc. — Knights of Columbus, 28 Prospect St., plans to build brick and steel gymnasium, swimming pool and assembly hall, on prospect St. Architect not selected.

Conn., Hartford—Hotel—Heublein Hotel, 98 Wells St., having plans prepared by Lockwood, Greene & Co., archts., 60 Federal St., Boston, for remodeling hotel on Wells and Mulberry Sts. About $75,000.

Conn., Hartford — Hotel — S. S. Nelson, 290 Trumbull St., plans to build large hotel (containing 150 to 160 rooms with baths), on Church St. Architect not selected.

N. Y., Brooklyn—Y. M. H. A., 189 Montague St., plans to build 13 story, brick, steel and stone, concrete foundation, on 4th Ave. and Dean Sts. About $1,000,000. A. Moscowits, Pres. Architect not selected.

N. J., Hackensack—School—Bd. Educ. plans to build 12 room school. About $275,000.

N. J., Jersey City—Hospital—City is conducting campaign to raise $100,000 to build 33 x 95 ft. concrete and brick wing to Greenville Hospital. Architect not selected.

Pa., Beaver—High School—City voted $90,000 bonds to build centralized high school in North Beaver.

Pa., Butler—Hospital—Butler Memorial Hospital plans to construct 3 story, brick and stone, brick foundation, on Brady St. About $500,000. T. M. Maxwell, pres. E. L. Tilton, 52 Vanderbilt Ave., New York City, archt. and engr.

Pa., Phila.—School—Bd. Educ., 19th and Chestnut Sts., opens bids about Dec. 4, building 3 story, 145 x 170 ft., concrete and brick, on 7th and Norris Sts. Noted April 1.

Pa., Pittsburgh—Convent and School—St. Philomenas Catholic Church, c/o J. T. Comes, archt., Renshaw Bldg., plans to build 2 story, 80 x 90 ft. convent and 100 x 200 ft. school, brick and steel, rein.-con. flooring, on Forward St. and Beechwood Blvd. Cost between $400,000 and $500,000.

Pa., Washington—Theatre—S. Kosmos, Pine and Maine Sts., having plans prepared by P. C. Dowler, archt., Magee Bldg., Pittsburgh, for 2 story, 72 x 165 ft., brick and steel, rein.-con. flooring. About $150,000.

Md., Baltimore—Church, etc.—Immaculate Conception Church plans to build brick and stone church, school, rectory and sisterhouse, on Liberty Heights Ave. and Hilton St. About $500,000. F. Baldwin, 328 North Charles St., archt.

Md., Baltimore—Church and Parish House—St. Thomas Protestant Episcopal Church plans to build 1 and 2 story brick and stone, stone foundation, on Alameda Ave. and 31st St. About $150,000. Mottu & White, 324 North Charles St., archts.

Md., Baltimore — School — Bd. Educ. rejected bids building P.S. 64, on Garrison and Penhurst Aves. Bd. Awards having revised plans prepared. Noted Nov. 4.

Md., Baltimore — School — Bd. Educ. rejected bids building P.S. 76, on Fort Ave. and Lathrobe Park, Bd. Awards has ruled that schoolhouses hereafter built must be fireproof throughout; original plans did not call for these specifications. New specifications have been ordered. Incorrectly noted in our issue of Nov. 11.

Md., Catonsville (Baltimore P. O.)—Hospital—Hospital for Criminal Insane, State Lunacy Comn., 330 North Charles St., plans to build brick, here. About $150,000. H. P. Hopkins, 347 North Charles St., archt.

D. C., Wash.—Church—Catholic University, Brookland, having plans prepared by Maginnis & Walsh, archts., 100 Boylston St., Boston, for 100 x 600 ft. stone, on University grounds. About $5,000,000.

W. Va., Charleston—Hospital—United Mine Workers of America, Dist. 17, Malden, plan to build hospital here. About $200,000. F. Mooney, dist. secy.

W. Va., Philippi—Hall—Broaddus College retained E. J. Wood & Son, archts., Clarksburg, to prepare plans for 2 story, 75 x 95 ft. physical culture hall, here. About $75,000.

N. C., Asheville—School—City plans to build 4 or 5 schools. Cost $100,000 each.

S. C., Florence—Hospital—J. D. Smycer plans to build brick and concrete hospital. About $75,000. L. MacD. Hicks, Florence, archt.

Fla., Tampa—Office—C. H. Brown and F. Hensley, 510½ Franklin St., plans to build 12-15 story, 90 x 105 ft steel and concrete, rein.-con. flooring, rock foundation, on Franklin St. Architect not selected.

Ky., Frankfort — Church — Christian Church having preliminary sketches prepared by L. L. Oberworth, archt. Frankfort, for new church. About $150,000.

Ky., Lexington — Church — Woodland Christian Church receives bids in spring building church. About $75,000. H. Churchill, Fayette Natl. Bank Bldg., archt.

O., Cleveland—Office—Cleveland Catholic Diocese, c/o A. Scullen, 1007 Superior Ave. plans to build 6 story, rein.-con., brick and steel addition, rein.-con. flooring, brick and concrete foundation, on East 12th St. near Euclid Ave. About $250,000. Private plans.

O., Cleveland—Restaurant—The Peacock Inn Co., c/o L. Park, 304 Superior Ave. plans to remodel 1 story, steel and marble at 2010 Euclid Ave. About $100,000. Private plans.

O., Lorain—High School—Bd. Educ., East 6th St. and Washington Ave., having plans prepared by F. C. Warner, archt., Hippodrome Annex Bldg., Cleveland, for 2 story, 14 room, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 20th St. and Oakdale Ave. About $350,000.

O., Springfield—School—Bd. Educ. having plans prepared by O. D. Howard, archt., 8 East Broad St., Columbus, for 2 story, 100 x 110 ft., brick and concrete, on Limestone St. About $140,000.

Mich., Detroit — Church — St. Thomas Church, c/o C. W. Short, archt. and engr., 25 West 44th St., New York City, having plans prepared for addition, brick and stone, brick foundation. About $125,000.

Mich., Detroit—Clubhouse—League of Catholic Women, 47 Watson St., plans to build 4 story, 120 x 140 ft., rein.-con., brick and steel, on Parsons St. About $500,000. Architect not selected.

Mich., Detroit—Parish House—Columbia Church, c/o C. W. Short, archt. and engr., 25 West 44th St., New York City, soon lets contract building 3 story, 85 x 95 ft., brick and stone, brick foundation, on Jefferson and Manistique Aves. About $150,000.

Mich., Monroe—Bank—Weary & Alford, archts., 1732 South Michigan Blvd., Chicago, open bids about Jan. 15, building rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation (height and size to be determined by result of bid), here, for Dansard State Bank, Monroe. About $250,000.

Mich., Muskegon—Bank and Office—Weary & Alford, archts., 1732 South Michigan Blvd., Chicago, open bids about Jan. 15, building rein.-con., brick, terra cotta and granite, rein.-con. flooring, concrete foundation (height and size to be determined by result of bids), here, for Natl. Lumbermans Bank, 13 West Western Ave. About $300,000.

Mich., Saginaw—High School—Bd. Educ. receives bids in spring building Junior High School. Election in January to vote on bonds for project. Cowles & Mutscheller, 1 Chase Blk., archts. Noted March 18.

Wis., Amherst—High School—Bd. Educ., c/o F. E. Metcalf, having preliminary plans prepared by W. C. Alban, archt., Endicott Bldg., St. Paul, for 3 or 4 story, 60 x 150 ft., brick, tile and stone, brick foundation, on North Main St. About $200,000.

Wis., Chippewa Falls—Sales and Office—E. G. Pannier & Son, 916 Prairie St., having plans prepared by Schlinz & Bailey, archts., 53 North Jackson Blvd., Chicago, for 2 story, 130 x 200 ft., rein.-con. and brick. About $120,00. F. C. Pannier, pres.

Wis., Evansville—School—Bd. Educ. had plans prepared by Claude & Starck, archts., Bridge Annex Bldg., Madison, for 2 story, brick, rein.-con. and stone. About $100,000. N. G. Patterson, secy. Noted Aug. 19.

Wis., Two Rivers—High School—Bd. Educ. receives bids about Dec. 1, building 3 story, 80 x 155 ft., rein.-con., brick and stone. About $400,000. F. Wolf, 2307 Jefferson St., pres. J. D. Chubb, 109 North Dearborn St., Chicago, archt. Noted July 1.

Ia., Clarinda—School—City election Nov. 30, to vote on $90,000 bonds to build 2 story school. B. J. Sunderman, secy.

Ia., Corydon—High School—Bd. Educ. receives bids about Dec. 15, building 3 story, 67 x 121 ft., steel, brick and tile. About $160,000. W. Gordon, Hubbell Bldg., Des Moines, archt. Noted May 6.

Minn., Mankato—Hospital—Immanuel Hospital Assn., 4th and Washington Sts., plans to build 2 or 3 story rein.-con. and brick addition. About $150,000. A. F. Winter, chn. plan com. Architect not announced.

Buildings (Continued)

Minn., Minneapolis — Hotel — Radison Hotel Co., 7th St. between Nicollet and Hennepin Aves., plans to build 375 room addition. About $1,800,000. S. Kruse, pres. Architect not announced.

Minn., Virginia—Church—Bd. Trustees Peoples Congregational Church, receives bids about Jan. 15, building 2 story, 75 x 145 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation in South Virginia. About $110,000. C. F. Frybort, 502 5th St., archt. and engr.

Kan., Kansas City—Court House—Wyandotte Co. having plans prepared by Rose & Peterson, archts., Barker Bldg., Kansas City, for court house. Bond for $1,000,000 voted for project. Noted Sept. 30.

Kan., Pittsburg—Memorial—City election Dec. 16 to vote on $250,000 bonds to construct memorial building.

S. D., Mitchell—Music Store—Redfine Piano Co. plans to build 2 story, 25 x 80 ft. rein.-con. and brick. About $75,000. Architect not announced.

Mont., Billings—Church—Baptist Congregational Church raising funds to build church, on Division St. and 4th Ave. N. About $85,000. McIvor & Cohagen, 310 Electric Blk., archts.

Mo., Carthage—Soldiers Hall—Bd. Trustees plans to build soldiers hall. About $75,000. C. C. Kellogg, pres. Architect not selected.

Mo., Kansas City—Court House—Jackson Co. defeated $5,000,000 bond issue Nov. 2, for building court house. Noted Sept. 16.

Tex., Beaumont—Schools — City plans election to vote on $500,000 bonds to build schools.

Tex., Houston—Schools—City voted $150,000 bonds to build schools. A. E. Ammerman, mayor. Noted Oct. 14.

Col., Grand Junction—Court House—Mesa Co. voted $150,000 bonds, and is having plans prepared by E. Groves, archt., Foster Bldg., Denver, for court house. Total cost about $200,000.

Col., Rifle—School—School Dist. 2 voted $100,000 bonds to build new school.

Col., Steamboat Spring—Court House—Routt Co. voted $98,000 bonds to build court house. C. A. Smith, co. comr.

Wash., Mt. Vernon—School—School Dist. plans to build 2 story, 120 x 190 ft., concrete, brick and stone. About $250,000. Stephen, Stephen & Brust, New York Bldg., Seattle, archts.

Wash., Yakima—Church—St. Pauls Parish plans to build 2 story, 47 x 124 ft., concrete. About $130,000. Beezer Bros., Seaboard Bldg., Seattle, archts.

Que., St. Lambert—Fire and Police Station—Town receives bids in December building and equipping fire and police station. About $150,000.

Ont., Ottawa—Club House—St. Anne's Parish plans to build 55 x 120 ft. parish club house and hall, on St. Patrick St. About $150,000. A. Myrand, Murray St., rector.

Ont., Belleville—College—Albert College plans to build 3 story, concrete, brick and steel, concrete flooring and foundation. About $500,000. Chapman, Oxley & Bishop, Harbor Bldg., Toronto, archts.

Ont., Kingston — Dormitories — Roman Catholic Church plans to build additions to dormitories of Regiopolis College. About $200,000. A. Spratt, rector. Architect not selected.

Ont., Ottawa—Fire Station—City plans to build 3 story fire station. About $100,000. A. F. Macallum, city engr. Architect not selected.

Ont., Ottawa—Hospital—Bd. Control receives bids early in 1921 for addition to Royal Ottawa Sanitarium, on Carling Ave. About $300,000. A. F. Macallum, city engr. Architect not selected. Noted Aug. 12.

Ont., Toronto—Skating Rink—Toronto Skating Club, Excelsior Life Bldg., plans to build 1 story, brick and steel, concrete foundation, on Dupont St. About $200,000. Architect not selected.

BIDS DESIRED

Mass., Boston—Municipal — Desmond & Lord, archts., 15 Beacon St., receiving bids building 4 story, 65 x 150 ft., brick and stone, in Hyde Park section, for city.

Mass., Boston—School—Schoolhouse Dept. receiving bids building 4 story, 220 x 250 ft., concrete, brick and steel, rein.-con. flooring concrete foundation, on Louis Pasteur Ave. About $1,000,000. J. E. McLaughlin, 88 Tremont St., archt.

Mass., Hyde Park (Boston P. O.)—Municipal—Until Dec. 14, by Pub. Bldg. Dept., constructing 3 story, 75 x 165 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Central Ave. and Winthrop St. About $350,000. Desmond & Lord, 15 Beacon St., Boston, archts.

Mass., Worcester — Chapel — Sheehan & Colleary, archts., 120 Boylston St., Boston, receiving bids building 1 story, 49 x 100 ft., stone and steel, rein.-con. flooring, concrete foundation, on campus, for Holy Cross College. About $300,000. J. J. Carlin, pres. Noted Oct. 14.

Conn., Storrs (Eagleville P. O.)—Dormitory—Until Dec. 14, by Connecticut Agricultural College, building 3 story, 53 x 110 x 186 ft., concrete and brick, rein.-con. flooring, concrete foundation, on campus. About $335,000. D. K. Perry, 27 West Main St., New Britain, archt. Noted Oct. 28.

Conn., Waterbury — Armory — Military Emergency Bd., State Armory, Hartford, receiving competitive plans and will soon select architect to prepare plans for 4 story, brick, concrete and steel, on Field St., here. About $400,000. Noted Aug. 12.

N. Y., Brooklyn—Synagogue—Until Dec. 6, by Slee & Bryson, archts. and engrs., 154 Montague St., building 1 story, 60 x 85 ft., brick and stone, brick foundation, on Bay Parkway, for Congregation Beth Cholem, c/o architects. About $100,000.

N. Y., New York—Office—Densmore & LeClean, archts., 88 Broad St., Boston, receiving bids altering 5 story, brick and timber, on Water St., for Whittall & Co., 135 Front St. About $75,000.

N. J., Burlington—Temple—Until Nov. 27, by W. T. Arnold, archt. and engr., Meriden, Conn., building brick and stone, brick foundation, here, for Masonic Order of Burlington, 15 West Union St. About $300,000.

O., Akron—Y. M. C. A., 259 South Main St., receiving bids building 3 story, 60 x 130 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Summit and Perkins Aves. About $100,000. Harpster & Bliss, Nantucket Bldg., archts. Mayer & Valentine, Bangor Bldg., Cleveland, engrs. Noted Sept. 30.

O., Cleveland—Synagogue—Until Nov. 30, by M. Altschuld, archt., 5116 Woodland Ave., building 1 story, 58 x 60 ft., brick and steel, brick foundation on East 119th St. and Union Ave., for Mt. Pleasant congregation, c/o architect. About $75,000.

O., Lakewood (Cleveland P. O.)—High School—Until Dec. 13, by Bd. Educ., Warren Rd., building 3 story, 82 x 144 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Jackson Ave. About $350,000. G. W. Grill, clk. C. W. Hopkinson, Rose Bldg., Cleveland, archt. Noted Apr. 20.

O., Marietta—Bank and Office—Until Jan. 1, by Weary & Alford, archts., 1732 South Michigan Blvd., Chicago, building 11 story, 51 x 114 ft., rein.-con., tapestry brick, Bedford stone and terra cotta, rein.-con. flooring, concrete foundation, here, for Peoples Banking & Trust Co. About $750,000.

Ind., Wabash—Bank—Until Dec. 15, by Weary & Alford, archts., 1732 South Michigan Blvd., Chicago, building rein.-con., brick and stone, rein.-con. flooring, concrete foundation, here, for Wabash Natl. Bank. About $250,000.

Mich., Detroit—Library—Until Dec. 7, by Library Comn., Library Bldg., constructing 2 story, 60 x 100 ft., rein.-con., brick and steel, concrete foundation, on Mack Ave. About $75,000. J. B. Kennedy, pres. G. V. Pottle, 1044 David Whitney Bldg., archt. Noted July 29.

Mich., Detroit—Technical High School—Until Dec. 21, by Bd. Educ., 50 Bway., building 5 and 7 story, 250 x 350 ft. addition, rein.-con. brick and steel, rein.-con. flooring, concrete foundation, on 2nd Ave. and High St., to include separate gas engine laboratory and arch viaduct. Bids will be received on all or part of above project. About $2,500,000. Malcolmson, Higginbotham & Palmer, 405 Moffat Bldg., archts. Noted March 11.

Ill., Chicago—Bank—Until Jan. 1, by C. Hatzfeld, archt., 7 South Dearborn St., building 1 story, 59 x 125 ft., concrete and brick, rock and concrete foundation, on Milwaukee Ave. and Lawrence St., for Jefferson Park Natl. Bank, 4815 Malwaukee Ave. About $125,000.

Ill., Chicago — Church — S. M. Seator, archt., 35 North Dearborn St., receiving bids building 2 story, 110 x 125 ft., brick and concrete, concrete foundation, on Lakewood and Berwyn Aves., for North Shore Baptist Church, c/o architect. About $300,000. Noted April 1.

Ill., Waukegan — Hospital — Schmidt, Gardner & Martin, archts., 104 South Michigan Ave., Chicago, receiving bids building 2 story, 40 x 340 ft. hospital and 1 story, 25 x 90 ft. power house, rein.-con. and brick, concrete foundation, here, for Victory Memorial Hospital, c/o architects. About $300,000.

Ia., Pocahontas—School—Until Dec. 15, (change of date), by W. E. Hulse & Co., archts., 309 Securities Bldg., Des Moines, building 2 story, 56 x 110 ft., rein.-con., brick and stone, for Bd. Educ. About $100,000. F. Jensen, secy. Noted Oct. 21.

Minn., Duluth—Church—Until Jan. 2, by J. M. Davidson, chn. bldg. comn. United Protestant Church, building 2 story, 75 x 140 ft. rein.-con., brick and steel, concrete flooring and foundation, in Morgan Park. About $90,000. W. C. Agnew, Morgan Park, archt. and engr.

Ark., Hot Springs—Bath House—Until Dec. 4, by Woodmen of the World, 222½ Valley St., building 3 story, 95 x 120 ft. About $100,000. W. T. Bailey, 358 Beale Ave., Memphis, Tenn., archt.

Ark., Little Rock—Lodge—Until Jan. 1, by Mosaic Templars, 501 West 9th St., building 3 story, brick and terra cotta. About $100,000. W. T. Bailey, 358 Beale Ave., Memphis, Tenn., archt.

Col., Greeley—Hospital—Until Jan. 4, by Comrs. Weld Co., building 3 story, 40 x 130 ft., rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation. About $110,000. W. N. Bowman Co., Central Savings Bank Bldg., Denver, archts.

Cal., Santa Monica—Theatre—Until Dec. 6, by D. W. Faucett, secy. Bd. Educ. High School Dist., furnishing labor and material building and finishing memorial open air theatre, on high school grounds. Allison & Allison, 1405 Hibernian Bldg., Los Angeles, archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Springfield—High School—School Comn. received bids building 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on State St., from A. E. Stephens Co., 318 Main St., $914,000; E. J. Penney Inc., 374 Main St., $986,400; F. T. Ley & Co., Inc., 499 Main St., $1,077,850. Above bids rejected. Will probably receive new bids. Noted Nov. 11.

★N. Y., New York—Office—L. C. Gillespie, 159 Front St., let contract altering 4 story, brick and stone, to Whitney Co., 101 Park Ave. About $80,000.

★N. Y., New York—Theatre—J. Cort, Cort Theatre, will alter brick and stone, at 22 West 63rd St. About $75,000. Work will be done by day labor.

★N. Y., Valhalla—Institution—Community of St. Marys, c/o C. P. H. Gilbert, archt. and engr., 1 Madison Ave., New York City, let contract building Institution for Incorrigibles, brick, steel and stone, brick foundation, here, to E. J. Walsh, Peekskill. About $250,000.

★Md., Baltimore—School—City let contract building P. S. 112, 3 story, 46 x 150 ft., concrete, brick and steel, concrete foundation, on Laurens and Calhoun Sts., to J. L. Robinson Constr. Co., 1130 West Lafayette Ave., $322,582. Noted Oct. 28.

★Fla., Clearwater—Church and Sunday School — Peace Memorial Presbyterian Church let contract building 1 story (with 3 domes and 1 tower), 40 x 95 ft. and 50 x 95 ft., rein.-con., tile, stucco and stone, to Frisbie & Walker, Dawson-Thornton Bldg., Tampa. Cost between $85,000 and $90,000; percentage basis.

Buildings (Continued)

★**O., Cincinnati**—Theatre and Office—B. F. Keith, c/o Rapp & Rapp, archts., 190 North State St., Chicago, let contract building 12 story, 123 x 200 ft., rein.-con., brick, steel and terra cotta, rein.-con. flooring, concrete foundation, to Ohio Bldg. & Constr. Co., Burnet St. About $1,250,000.

★**O., Cleveland**—Bank—Cleveland Trust Co., East 9th St. and Euclid Ave., let contract remodeling bank, marble and terra cotta, on East 22nd St. and Woodland Ave., to G. A. Rutherford Co., 2779 Prospect Ave. About $75,000.

★**O., Cleveland**—Commercial—Park Furniture Co., 6303 Franklin Ave., let contract building 3 story, 56 x 107 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 3185 Bridge Ave., to P. Nenzil, 9715 Denison Ave. About $90,000.

★**O., Cleveland**—Market and Commercial—Woodland Ave. Market Corp., 5808 Woodland Ave., let contract building 2 story, 65 x 80 ft., brick and steel, brick foundation, at 7400 Woodland Ave., to M. Sadai, 2378 East 46th St. About $75,000. Noted Oct. 18.

★**O., Cleveland**—Restaurant—Euclid-East 17th Co., c/o J. Laronge, 214 Williamson Bldg., let contract remodeling 2 story, steel, at 1523 Euclid Ave., to Fleischman Constr. Co., 1836 Euclid Ave. About $75,000.

★**O., Cuyahoga Falls**—Exchange—Central Union Telephone Co., 33 North 3d St., Columbus, let contract building 2 story, 71 x 73 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, to Clemmer & Johnson Co., 406-07 Metropolitan Bldg., Akron. About $75,000. Noted Nov. 4.

Mich., Detroit — Engine House — Fire Comm., Wayne and Larned Sts., received bids Nov. 15, for masonry work building 2 story, 60 x 63 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Seven Mile Rd., from M. Bartholomaei & Son, 446 Warren Ave., $16,794; C. R. Schewe, 521 Chamber of Commerce, $48,156, Spicer & Shook, Sun Bldg., $50,000; carpentry work, from A. Hild, 680 Orleans St., $14,372 Winckler & Auch, 400 Penobscot Bldg., $14,430, C. Keller Co., 210 Moran St., $15,305. Noted Nov. 11.

★**Mich., Lansing**—High School—Bd. Educ. let contract building Junion High School, 3 story, 90 x 306 ft., rein.-con., brick and steel, on Jerome St., to Reniger Constr. Co., Lansing. About $250,000. Noted Aug. 12.

★**Wis., Amherst**—Bank and Office—International Bank of Amherst, let contract building 3 story, 60 x 115 ft., brick, rein.-con. and steel, concrete foundation, on East Main St., to H. P. Knutsen, Main St., Waupaca. About $75,000.

★**Wis., Sheboygan**—Hospital — St. Nicholas Hospital Assn., 1426 North 8th St., will build 3 story, 60 x 115 ft., brick, rein.-con. and steel, brick foundation, on 9th St. and Superior Ave. About $75,000. Work will be done by day labor. Noted Sept. 9.

★**Mo., Kansas City**—Temple—Congregation B'Nai Jehudah, Linwood and Flora Sts., let contract building 2 story, 88 x 109 ft., rein.-con., brick and steel annex, brick and concrete foundaton, to Hoffman Constr. Co., Kansas City, Mo. About $150,000. Noted Oct. 28.

Federal Government Work

PROPOSED WORK

Pa., Phila.—Steel Dump Scows—U. S. Engineer, War Dept., Wash., D. C., rejected bids received Oct. 14, furnishing 2 steel dump scows, here. Noted Oct. 28.

D. C., Wash.—Buildings—J. S. Carson, Constr. Div., War Dept., opens bids about Jan. 15, constructing brick and stone army medical school buildings, at Walter Reed Hospital. About $1,000,000.

Va., Norfolk—Conduit, Dredging, etc.—U. S. Engineer, War Dept., Wash., D. C., rejected bids received Oct. 11, building conduit, etc., and dredging in Appomattox River, here. Noted Sept. 29.

Wash., Puget Sound—Nurses Quarters—Spec. 4293—Bureau Yards & Docks, Navy Dept., Wash., D. C., received no bids Nov. 17, building, here. Noted Oct. 28.

BIDS DESIRED

N. Y., Ft. Slocum—Repairing Plumbing and Heating Systems, etc.—Until Nov. 27, by Quartermaster, Recruit Depot, repairing plumbing and heating systems, plastering, sheet metal work, etc., at Post Hospital Bldgs. Nos. 32-A and 93.

Pa., Phila.—Roofing and Repainting, etc.—Until Dec. 10, by Treas. Dept., Wash., D. C., building new roof, repainting, etc., at U. S. Mint, here. J. A. Wetmore, superv. archt.

D. C., Wash.—Smoke Stack—Until Dec. 6, by Treas. Dept., building smoke stack for boiler house of U. S. Public Service Hospital, 32 J. A. Wetmore, superv. archt.; advertised in this issue.

Va., Norfolk—Steam Distributing System—Spec. 4255—Until Dec. 1, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing, here.

Ala., Florence—Hydraulic Turbine—Until Dec. 15, by U. S. Engineer, furnishing and delivering hydraulic turbine; advertised in this issue.

Ky., Covington—Alterations, Repairs, Plumbing, etc.—Until Dec. 16, by Treas. Dept., Wash., D. C., altering, repairing, plumbing, etc., here. J. A. Wetmore, superv. archt.

Ky., Louisville—Gate and Valve Operating Machinery—Until Dec. 15, by U. S. Engineer, furnishing and delivering for Lock No. 48, Ohio River; advertised in this issue.

Mich., Battle Creek—Mailing Vestibule—Until Dec. 10, by Treas. Dept., Wash. D. C., building mailing vestibule and installing wire screening, in Post Office, here. J. A. Wetmore, superv. archt.

Mich., Kalamazoo — Remodeling Post Office—Until Dec. 8, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

Col., Denver—Frame Cottage—Until Nov. 29, by Dept. Interior, U. S. Recl. Serv., Wash., D. C., building 3 room frame cottage at Vandalia Dam, here.

Tex., Port Arthur—Radio Building—Spec. 4328—Until Dec. 15, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing 1 story, 14 x 39 ft. radio building terra cotta stuccoed, concrete foundation, also 175 ft. structural steel self-supporting tower on concrete foundation. Noted Nov. 4.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Chelsea—Alterations and Additions to Main Building, etc.—Spec. 4273—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 17, altering and building additions to solarium of main building and 1 story addition to heating plant, at Naval Hospital, here. (1) work complete, from Cunningham & Duncan Co., 31 Exch. St., Lynn, (1) $19,769, (2) deduct $360; B. J. Hickey, 335 East 149th St., New York City, (1) $22,395 (100 days). Noted Nov. 4.

★**R. I., Providence** — Remodeling Post Office, Court House and Custom House — Treas. Dept., Wash., D. C., let contract remodeling, here, to M. Serrato, 3 Tremont Row, Boston, $92,650. Noted Nov. 11.

★**N. Y., New York**—Restoration of Assay Office—Treas. Dept., Wash., D. C., let contract restoring damaged portion of U. S. Assay Office, here, to R. M. Brown, 350 Fulton St., Brooklyn, $46,214. Noted Nov. 18.

Pa., Allentown — Mezzanine Floor, etc. — Treas. Dept., Wash., D. C., received bids Nov. 16, building in Post Office, here, from W. MacDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $4,476; Garber & Cissell, Bethlehem, $4,700; G. E. Wright, Inc., Chicago, Ill., $5,175. Noted Nov. 4.

★**D. C., Wash.**—Cable Hangars—U. S. Engineer, War Dept., let contract furnishing cable hangars, to Fee & Mason, 81 Beekman St., New York City, $1,397. Noted Oct. 14.

★**D. C., Wash.**—Controller Devices—U. S. Engineer, War Dept., let contract furnishing 4 sets of controller devices for 5 h.p. motors, to Cutler-Hammer Mfg. Co., 50 Church St., New York City, $978.

★**D. C, Wash.**—Lead Cable—U. S. Engineer, War Dept., let contract furnishing rubber insulated lead covered cable, to Bishop Gutta Percha Co., 420 East 25th St., New York City, $28,137.

D. C., Wash.—Millwork—Treas. Dept. received bids for millwork, at Pub. Health Hospital, at Mt. Alto, (1) knock down, (2) assembled at mill, from Washington Woodworking Co., 200 12th St. N. W., (2) basement, 1st and 2nd floors, $4,050; Barlow Ross, 11th and G Sts., N. W., (2) $4,[illegible] (2) $5,000; Amer. Woodworking Co., Uhler St., (1) $6,617, (2) $5,867.

★**D. C., Wash.**—Office and Laboratory, Spec. 4301—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing naval and experimental research laboratory building, railroad track extensions, also foundations for radial brick chimney, at Bellevue, here, to Boyle Robertson, Evans Bldg., $652,711. Noted Oct. 21.

★**D. C., Wash.**—Switchboard Feeder Panel—U. S. Engineer, War Dept., let contract furnishing 1 switchboard feeder panel to Western Electric Co., 195 Bway., New York City, $588. Noted Nov. 11.

D. C., Wash.—Terra Cotta—Treas. Dept. received bids furnishing terra cotta for Public Health Hospital Reservation, at Mt. Alto, from Asher Fire Proofing Co., Southern Bldg., $21,623; R. E. Milor, Woodward Bldg., $24,450; Natl. Eng & Contg. Corp., 16th and W Sts., $29,112.

Va., Ft. Myer—Plumbing, Heating, etc.—War Trade Bd., Room 2416, Wash., D. C., received bids for plumbing, heating and electric work in laundry building, here, (1) work complete, from Federal Heating Co., 310 13th St., N. W., Wash., D. C., (1) $33,957 (140 days), (2) $1,614, (3) $5,670, begin work in 10 days; Standard Eng. Co., 2129 Fye St., N. W., Wash., D. C., (1) $38,600 (140 days), (2) $1,950, (3) $5,600 (60 days); Biggs Eng. Co., 1310 14th St., N. W., Wash., D. C., (1) $40,857, (2) $1,646, (3) $4,900.

★**Va., Norfolk**—Quay Wall—Spec. 4306—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building quay wall, here, to H. P. Converse & Co., 31st St. and Colonial Ave., $234,909 (300 days). Noted Nov. 11.

★**Va., Norfolk**—Dredging—U. S. Engineer, War Dept., Wash., D. C., let contract dredging Sects. 1 and 2, Appomattox River, here, to W. H. French Dredging & Wrecking Co., Arcade Bldg., $20,916. Noted Sept. 29.

Va., Quantico—Fence and Gate—Spec. 4316—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids building, at Marine Flying Field, here, (1) work complete, from Cyclone Fence Co., 403 Stock Exch. Bldg., Phila., Pa., (1) $6,930 (60 days), (2) $2.23; Wick Wire Spencer Steel Corp., 69 Hammond St., Worcester, Mass., (1) $7,424 (60 days); Wayne Iron Wks., 818 Commercial Trust Bldg., Phila., Pa., (1) $7,480 (60 days), (2) $2.45. Noted Oct. 21.

W. Va., South Charleston—Distributing System—Spec. 4294—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 3, installing direct current distributing centers in machine shop at U. S. Naval Ordnance Plant, here, (1) work complete, from Genl. Electric Co., River Rd., Schenectady, N. Y., (1) $14,565 (175 days), (2) $370 (135 days), (3) $24; Westinghouse Electric & Mfg. Co., 803 Hibbs Bldg., Wash., D. C., (1) $18,382 (140 days), (2) $137.85 (alternate, $165.34, alternate, $229.53), (3) $15. Noted Oct. 28.

★**La., New Orleans**—Steel Hull—U. S. Engineer, War Dept., Wash., D. C., let contract furnishing steel hull, for dredge "Grossette," here, to Nashville Bridge Co., foot of Shelby Ave., Nashville, Tenn., $23,400.

O. Akron—Extending Mailing Vestibule—Treas. Dept., Wash., D. C., received bids Nov. 15, building extensions to mailing vestibule, mezzanine floor, etc., in Post Office, here, from J. Devault, Massillon Rd., Canton, $14,531; W. MacDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $19,988; C. W. & P. Constr. Co., Akron, $20,014. Noted Oct. 21.

O., Cincinnati — Altering Attendants' Quarters, etc.—Treas. Dept., Wash., D. C., received bid Nov. 17, altering and repairing attendants' quarters also building composition flooring, in Marine Hospital, here, from D. Gordon Constr. Co., Burnet St. and Northern Ave., Avon, $1,970 and $3,000 respectively. Noted Nov. 11.

O., Portsmouth—Extending Mailing Vestibule—Treas. Dept., Wash., D. C., received bids Nov. 16, building extension to mailing vestibule, etc., in U. S. Post Office, here, from Donald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $12,777; Garber & Cissell, Bethlehem, Pa., $13,200. Noted Oct. 28.

Federal Government Work (Continued)

★**Cal., Mare Island**—Heating System—Spec. 4189—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in structural shop at Navy Yard, here, to Scott Co., 243 Minna St., San Francisco, Cal., $41,380 (150 days). Noted Nov. 18.

Cal., Sacramento—Remodeling Post Office and Court House—Treas. Dept., Wash., D. C., received bids Nov. 17, remodeling, here, from Hillard & Pearce, San Francisco, (1) $37,900, (2) $3,789, (3) $2,000, (4) $6,000; W. Murcell, Oensner Bldg., (1) $47,533, (2) $5,376, (3) $1,710, (4) $5,067; I. M. Sommer, San Francisco, (1) $18,964, (2) $2,322, (3) $689, (4) $3,866. Noted Oct. 21.

★**Cal., San Francisco**—Borings—U. S. Engineer, War Dept., Wash., D. C., let contract for borings in Sacramento River, 3rd Dist., here, to Linscott Drilling Co., Balboa Bldg., $15,473.

★**Cal., San Francisco**—Dredging—U. S. Engineer, War Dept., Wash., D. C., let contract dredging 1st Dist. in Petaluma Creek, here, to Amer. Dredging Co., 255 California St., $35,910.

Miscellaneous

PROPOSED WORK

Conduit—Syracuse, N. Y.—City plans to build 19 mi. underground c.i. conduit from here to Skaneateles Lake, 30 in. pipe. About $3,000,000. H. C. Allen, City Hall, engr.

Incinerator—Hoboken, N. J.—City Comn. soon receives bids building incinerating plant. Cost to exceed $50,000.

Velodrome—Newark, N. J.—J. Mayers, 637 South Orange Ave., plans to bui'd velodrome, with 25,000 seating capacity, and athletic field, heavy timber mill construction, at 637-681 South Orange Ave. About $250,000. L. Schlesinger, Inc., 27 Clinton St., archt.

Power Development—Spruce Pine, N. C.—D. W. Adams, Old Fort, plans hydro electric development on Toe River, near here. Cost several hundred thousand dollars.

Transmission Line—Greer, S. C.—City receives bids early part next year, building transmission line. About $30,000. J. A. Law, Spartanburg, engr.

Levee—Chattanooga, Tenn.—City plans to build levee system to eliminate floods. About $500,000. N. Wingfield, Chattanooga, engr.

Poles and Wire—East Cleveland (Cleveland P. O.), O.—City receives bids about Dec. 15, furnishing 1,000 electric light poles and electric wire. About 90,000. C. M. Osborn, city mgr.

Road Machinery — Green Lake, Wis. — Green Lake Co. appropriated $33,000 to purchase road machinery, to include gravel loaders, crushers, trucks, etc. D. C. Williams, comr.

Road Machinery — Lancaster, Wis. — Grant Co. appropriated $11,000 to purchase machinery, to include engine, large grader, 10 patrol graders, 10 road plows, 10 road drags and 10 drag scrapers. H. Mink, comr.

Portable Asphalt Plant—Milwaukee, Wis. Milwaukee Co. plans to purchase light portable asphalt plant. W. F. Cavenaugh, Pereless Bldg., comr.

Road Machinery — Phillips, Wis. — Price Co. Bd. appropriated $15,000 to purchase road machinery for 1921. B. M. Griffin, comr.

Road Machinery — West Bend, Wis. — Washington Co. appropriated $15,000 to purchase road machinery for 1921. C. J. Johnson, Kewaskum, comr.

Sea Wall—Aransas Pass, Tex. — City voted $225,000 bonds to build seawall. Noted Oct. 28.

Wharves and Port Improvements—Houston, Tex.—City defeated $1,425,000 bond issue for building wharves and improving port. A. E. Ammerman, mayor. Noted Oct. 15.

Tunnel, Dam and Ditches, etc.—Wellington, Col. — Wellington Reservoir Co., c/o L. E. Bishop, engr., 1st Natl. Bank Bldg., Denver, soon lets contract building 430 ft. rock outlet tunnel, valve and accessories; raising dam, placing 200,000 cu.yd. earth, 21,000 cu.yd. rock and 85,000 ft. piling; 4 ditches, 10,000 cu.yd. earth excav., 3,500 ft. metal flume, headworks, etc. About $400,000.

Shed—Portland, Ore.—Pub. Dock Comn. soon receives bids building shed on Pier 2, at Municipal Terminal No. 4. Former bids rejected.

Fire Hydrants—Ottawa, Ont.—City plans to expend $50,000 to purchase and install fire hydrants. A. F. Macallum, city engr.

Stone Quarry Equipment and Machinery—Ottawa, Ont.—City plans to expend $25,000 for stone quarry equipment and machinery, including crusher, derricks, etc. A. F. Macallum, city engr.

BIDS DESIRED

Refined Asphalt, Binder Stone, etc.—Brooklyn, N. Y.—Until Dec. 1, by E. Riegelmann, boro pres., furnishing and delivering 100,000 gal. refined asphalt, 50,000 asphalt paving blocks, 2½ in. deep, 1,700 cu.yd. binder stone, 1,000 cu.yd. 1½ in. gravel or broken stone, 1,000 cu.yd. paving sand.

Machinery—Jersey City, N. J.—Hudson Co. Blvd. Comn. receiving bids installing new and renovating old machinery in connection with Hudson Co. Blvd. Power Plant, cost $60,000; 2 new generators to cost $36,000. J. O'Connor, comr.

Water Tube Boilers and Equipment—Milwaukee, Wis.—Until Dec. 10, by Sewerage Comn., furnishing and building 4 horizontal water tube boilers and equipment. J. H. Fowles, secy.; advertised in this issue.

Wall—Chesterville, Ont.—Until Jan. 26, by A. I. Macdonell, clk Stormont Co., Cornwall, building rein.-con. retaining wall here, involving 500 cu.yd. excav., 1,500 cu.yd. grading, 400 cu.yd. mass concrete and 21 tons steel. About $20,000. J. C. Cameron, Cornwall, engr.

This Week

Bids are wanted on 109 jobs:

Buildings	35
Streets and roads	24
Federal Government	20
Water-works and sewers	6
Industrial works	2
Bridges	16
Miscellaneous	6

Contracts were let to the amount of $17,917,000:

Industrial works	$9,382,000
Buildings	3,092,000
Streets and roads	1,830,000
Government	1,194,000
Water-works and sewers	1,132,000
Bridges	191,000
Miscellaneous	1,096,000

Consider the above figures—not alone because of the amounts involved—but also because over one half of it is Industrial Works—a thought well worthy of the deepest consideration of every civil engineer and construction authority interested in the present opportunities in the field.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Asphalt—Mass., Boston**—City let contract furnishing 75,000 gallons winter patch asphalt, to The Barrett Co., 35 Wendell St., $0.21 per gal.

★**Tank—South Barre, Mass.**—Barre Wool Combing Co. let contract building 20 x 120 ft. rein.-con. storage tank, to H. P. Cummings Constr. Co., 14 Prospect St., Ware.

★**Stables—Topsfield, Mass.**—E. Wigglesworth, 234 Berkeley St., Boston, let contract building 1 story stable and barn, concrete, rein.-con. flooring, concrete foundation, here, to L. McAloon, North Andover. About $75,000.

★**Bulkhead—New York, N. Y.**—Lehigh Valley R.R., 143 Liberty St., let contract making necessary repairs to bulkheads along North River, to Barney-Ahlers, 110 West 40th St. About $100,000.

Paving Grits, etc.—New York, N. Y.—H. H. Curran, pres. Manhattan Boro., received bids Nov. 18, furnishing and delivering 400 cu.yd. paving grits, from G. Eaton, 231 Pearl St., $1,600. Lenox Sand & Gravel Co., Hudson River and 157th St., $1,800; 100,000 gal. refined asphalt, from Standard Oil Co., 26 Bway., $10,220, Warner Quinlan Co., 79 Wall St., $10,500; 2,400 cu.yd. binder stone, from New York Trap Rock Co., 161 Park Ave., at $2.50 per cu.yd., total $6,000; 30,000 granite paving blocks, from J. Meehan & Son, 74 Cort St., $4,125, L. Liepold, $4,200, Booth Bros., 206 Bway., $4,500; 3,000 bags Portland cement, from J. P. Duffy Co., 207 East 138th St., $3,570, J. A. McCarthy, 551 Exterior St., $3,780 (each bid $0.25 for return of bags); 5 motor trucks, from Herman Motor Co., $13,724, J. Simmons Co., 2130 Bway., $15,500, Manhattan Motors Co., 238 West 19th St., $17,039. Noted Nov. 11.

★**Improving Yard—Phila., Pa.**—City Transit, 1211 Chestnut St., let contract grading Bridge St. Yard, building concrete abutments, retaining walls and 10 column foundations, adjacent to Frankford Ave. and Bridge St., to T. Connor, 3329 North 5th St. About $49,000.

★**Foundations — Pittsburgh, Pa.** — St. Philomenas Catholic Church, c/o J. T. Comes, archt., Renshaw Bldg., let contract building brick and concrete foundations for 2 story, 80 x 90 ft. convent and 100 x 200 ft. school, on Forward St. and Beechwood Blvd., to J. H. McQuade & Sons, Bakewell Bldg. Total cost between $400,000 and $500,000.

★**Mausoleum—Denver, Col.**—Crown Hill Cemetery Assn., 2600 16th St., let contract building concrete, marble, brick and stucco mausoleum of 620 crypts, to Denver Community Mausoleum Assn., 835 Cooper Bldg. About $112,000.

★**Mausoleum—Trinidad, Col.**—I. Iaelo and R. A. Hall let contract building concrete and marble community mausoleum, here, to Denver Community Mausoleum Assn., 835 Cooper Bldg., Denver. About $108,000.

★**Lumber — Portland, Ore.**—Pub. Dock Comn. let contract for 188,200 ft. of lumber for bulk ore storage bunkers at Municipal Terminal No. 4, to Inman Poulsen Lumber Co., foot of East Caruthers St., $30 per M.

★**Portland Cement** — San Diego, Cal. — Common Council let contract furnishing 25,000 bbl. Portland cement for Barrett Dam, f.o.b. here, to U. S. Potash Co., 608 Hibernian Bldg., Los Angeles, $4.20 per bbl. Noted Nov. 18.

OFFICIAL PROPOSALS

Bids: Dec. 10.

Road Construction

Tallahassee, Fla.

Sealed proposals will be received by the State Road Department of Talahassee, Florida up to 4 o'clock p.m., on the 10th day of December, 1920, for the improvement and completion of a section of State Road No. 1, beginning at Lake City and extending east to the Baker County line, being approximately 9.9 miles in length.

The proposed improvement involves approximately:

104,415 sq.yd. Rock Base Course, 18 ft. wide;
92,814 sq.yd. Bituminous Macadam or Asphalt Wearing surface, 16 ft. wide;
Drainage Structures, 16 culverts, from 15" x 15" to 8' span, requiring 104.7 cu.yd. Class "A" concrete; 20.0 cu.yd. Class "B" concrete;
5,380 pounds Steel Reinforcement.

All rock used in the base course to be furnished by the State Road Department, f.o.b. Lake City and such other stations as may be established along the S. A. L. Ry. for this construction.

Proposals will be considered as follows:

(a) For Rock Base, complete in place.
(b) For Bituminous or Asphaltic Wearing Surface, complete in place.
(c) For Drainage Structures, complete in place.
(d) For Completed Pavement, including Drainage Structures, Rock Base course, and Bituminous or Asphaltic Wearing Surface, all as provided for in the plans and specifications for the proposed improvement.

Maps, plans, specifications and estimates are on file at the office of the State Road Department, Tallahassee, Florida, for examination, and Proposal Forms may be obtained upon application to the State Highway Engineer.

The right is reserved to reject any or all bids.

All proposals must be accompanied with a certified check, made payable to Forrest Lake, Chairman, State Road Department, in the sum of five (5) per cent of the proposal, as evidence of good faith and entering into contract by the party to whom the work may be awarded.

Any bidder who shall, after fifteen (15) days' notice being given of the acceptance of his or their proposal or proposals, fail to execute the contract and furnish the required bond shall forfeit his or their claim to the work, and his or their certified check shall be retained and used by the State of Florida as liquidated damages.

STATE ROAD DEPARTMENT
FORREST LAKE, Chairman.
CHAS. A. BROWNE,
State Highway Engineer.
November 9th, 1920.

Bids: Dec. 14.

Canal Improvements

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS
Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Tuesday, December 14th, 1920, at which place and hour they will be publicly opened and read, for the construction of Barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911 and amendatory laws, and Chapter 402 of the Laws of 1920, as follows:

TERMINAL CONTRACT NO. 53-A Revised.

For constructing certain portions of the dockwall around Ohio Basin, Buffalo.

Contract plans, sheets 1-7.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, forms of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's Exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time, in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposit of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.
November 9th, 1920.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Nov. 30.

Reservoir and Tank

Alma, Mich.

Sealed proposals will be received by the undersigned at the City Hall in the City of Alma, Mich., at 5 o'clock p.m., on Tuesday, the 30th day of November, 1920, for the furnishing of one elevated tank of 150,000-gallon capacity, mounted on a 140-ft. steel tower, with an alternate bid on a 200,000-gallon tank mounted the same. One 1,000,000-gallon reservoir to be constructed of either steel or reinforced concrete, of such dimensions as have proved practical and will best fit in for the service intended; namely, of impounding water for emergency purposes and not to give an excessive head. The elevated tank shall be of the latest approved design and type and shall pass the inspection and requirements of the National Board of Fire Underwriters; it shall be provided with at least a 12-in. discharge pipe sufficiently protected against freezing. The whole structure shall be proportioned to safely withstand the following forces acting separately or in combination: Weight of the water in the tank, weight of the structure, and wind stresses incurred by a hurricane blowing at the rate of 100 miles per hour from any direction.

Complete detail specification shall accompany each bid.

Before contracts are awarded for any of the improvements advertised above the successful bidder will be required to furnish evidence that he can secure deliveries of all necessary materials, and that he can progress and finish the contract promptly.

A certified check for 5 per cent of the amount of the bid will be required.

The right is reserved to reject any or all bids.

W. E. REYNOLDS, City Manager

Bids: Dec. 10.

Bridge Construction

Tallahassee, Fla.

Sealed proposals will be received by the State Road Department at Tallahassee, Florida, up to 5 o'clock p.m. on the 10th day of December, 1920, for the construction of a bridge, on State Road No. 2, over the Suwanee River, near White Springs, Florida.

The proposed structure consists of a through Steel Truss, 228 feet c. to c. pins, on reinforced concrete abutments with a clear roadway of 20 feet.

The proposed improvement involves approximately:

3,480 lin.ft. Wood Foundation Piling;
503 cu.yd. Class "A" Concrete;
34,500 pounds Steel reinforcement;
410,000 pounds Structural Steel;
15,200 pounds Cast Steel Plates, rollers, etc.
456 lin.ft. Hand Rail.

Plans and specifications are on file at the office of the State Road Department, Tallahassee, Florida, for examination, and may be obtained upon application to the State Highway Engineer for the sum of $10.00. When returned with a bonafide bid $5.00 will be returned to the bidder.

Proposals may be submitted as follows:

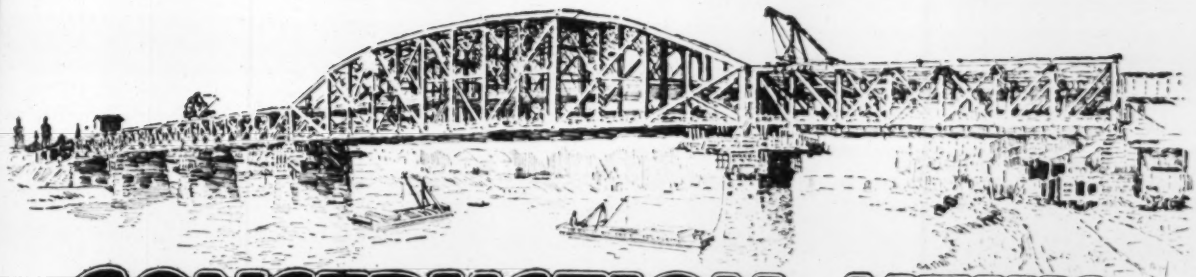
(a) On substructure, complete in place.
(b) On Steel Superstructure, complete in place.
(c) On completed bridge as provided for in the plans and specifications.

The right is reserved to reject any or all bids.

All proposals must be accompanied with a certified check, made payable to Forrest Lake, Chairman, State Road Department, in the sum of five (5) per cent of the proposal, as evidence of good faith and entering into contract by the party to whom the work may be awarded.

Any bidder who shall, after fifteen (15) days' notice being given of the acceptance of his or their proposal or proposals, fail to execute the contract and furnish the required bond shall forfeit his or their claim to the work, and his or their certified check shall be retained and used by the State of Florida as liquidated damages.

STATE ROAD DEPARTMENT
FORREST LAKE, Chairman.
CHAS. A. BROWNE,
State Highway Engineer.
November 9th, 1920.



CONSTRUCTION NEWS

UPS AND DOWNS OF THE MARKET

PIG IRON.—Prices cut on the steel-making grades to stimulate demand.

STEEL RAILS—The Steel Corporation's announcement that rail prices will not be changed has not affected independent quotations.

PIPE—No price changes on wrought or cast-iron pipe. Market practically the same as last month on sewer pipe.

WOOD BLOCKS—Decreases in New York and Minneapolis.

CONCRETING MATERIALS—Prices maintained in New York, in which district sand and gravel properties will operate until Jan. 15. Low demand in Minneapolis has reduced sand and crushed stone 25c. Hydrated lime up in Boston and Cincinnati; down in Minneapolis and Detroit. Cement up in Boston, Minneapolis and Cincinnati.

COMMON BRICK—Practically no changes since last month. A decline is expected in Baltimore within 30 days.

HOLLOW TILE—Decreases in Boston, Cincinnati and Baltimore; advance in Minneapolis. The Baltimore decrease is drastic, being 8@13½c. per tile; a further decline is expected within 30 days.

STRUCTURAL MATERIAL—Jones & Laughlin stated on Nov. 30 that they would adhere to the Steel Corporation price schedule. The other independents have made no statement and reinforcing rods, for example, are being quoted as high as $3. New York warehouse prices have declined sharply.

LUMBER—General drop of $3 on Douglas fir in San Francisco. Decreases in Boston, New Orleans, Baltimore, Cincinnati and Denver. Baltimore reports good stocks of yellow pine, light demand, and further drops expected. "B" and better pine flooring, which 30 days ago sold for $100, is now $95; maple flooring, clear, was $167.50, now $160; interior finish No. 1, was $100, now $90; ⅞-in. sheathing, was $57.50, now $50. New Orleans dealers expect no further decline in their territory. On Nov. 20 J. E. Rhodes, secretary-manager of the Southern Pine Association, states that the average weekly production of the mills of the association members is 380,000 ft., against 520,000 ft. at this time a year ago, yet production is still in excess of demand. Since March, prices have declined 30@50%.

LABOR—Continues to be increasingly plentiful.

Price advances are indicated by **heavy type** declines by *italics*

PIG IRON—Quotations compiled by The Matthew Addy Co.:

	Current	One Year Ago
CINCINNATI		
No. 2 Southern	**$46.50**	$36.60
Northern Basic	*40.00*	34.00
Southern Ohio No. 2	*47.00*	36.55
NEW YORK, tidewater delivery		
2X Virginia (silicon 2.25 to 2.75)	*52.40*	39.40
Southern No. 2 (silicon 2.25 to 2.75)	52.10	41.40
BIRMINGHAM		
No. 2 Foundry	**42.00**	33.00
PHILADELPHIA		
Eastern Pa	*46.00**	38.10*
Virginia No. 2	*46.25*†	39.10†
Basic	*44.00**	34.60*
Grey Forge	*45.50**	34.60*
CHICAGO		
No. 2 Foundry Local	*43.00@45.00*	36.25
No. 2 Foundry Southern	*46.00@48.00*	38.00
PITTSBURGH, including freight charge from the Valley		
No. 2 Foundry Valley	*44.00*	
Basic	*38.00*	34.40
Bessemer	*42.00*	35.40

* F.o.b. furnace. † Delivered.

RAILWAY SUPPLIES

STEEL RAILS—The following quotations are per ton f. o. b. Pittsburgh and Chicago for carload or larger lots. For less than carload lots 5c. per 100 lb. is charged extra:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago Current	Chicago One Year Ago
Standard bessemer rails	*$45.00@$55.00*	$45.00	*$45.00@$55.00*	$45.00
Standard openhearth rails	*47.00@57.00*	47.00	*47.00@57.00*	47.00
Light rails, 8 to 10 lb.	2.88 @ 4.00*	2.585*	*2.45 @ 3.00**	2.585
Light rails, 12 to 14 lb.	2.84 @ 3.84*	2.54*	*2.41 @ 2.95**	2.54
Light rails, 25 to 45 lb.	2.75 @ 3.75*	2.45*	*2.32 @ 2.85**	2.45

* Per 100 lb.

RAILWAY TIES—For fair-sized orders, the following prices per tie hold:

		7 In. x 9 In. by 8 Ft. 6 In.	6 In. x 8 In. by 8½ Ft.
Chicago	Plain	$2.00	$2.25
Chicago	Creosoted	2.25	2.50
San Francisco	Douglas Fir—Green	1.35	96
San Francisco	Douglas Fir—Creosoted	2.70	1.92

Prices per tie at mills in St. Louis district:

Untreated A Grade White Oak 6x8x8		Untreated A Grade Red Oak 6x8x8	
No. 1	$0.80	No. 1	$0.60
No. 2	.90	No. 2	.70
No. 3	1.00	No. 3	.80
No. 4	1.25		
7x9x8 white oak			1.05
7x9x8 red oak (No. 4)	$0.80	No. 5	.87

Note:—Prices delivered in St. Louis, white oak 6 x 8 x 8, best grade, $2; 7 x 9 x 9, $2.25.

TRACK SUPPLIES—The following prices are base per 100 lb. f.o.b. Pittsburgh for carload lots, together with the warehouse prices at the places named:

	Pittsburgh Current	Pittsburgh One Year Ago	Chicago	St. Louis	San Francisco
Standard spikes, $\frac{9}{16}$-in. and larger	$4.00@4.25	$3.35	$3.40@4.00	$5.47½	$7.75
Track bolts	6.00@6.50	4.35	4.60@5.00	Premium	8.75
Standard section angle bars	3.00@4.00	3.00	2.75@3.40	Premium	5.45

PIPE

WROUGHT PIPE—The following discounts are to jobbers for carload lots on the Pittsburgh basing card:

Steel Inches	Steel Black	Steel Galv.	Iron Inches	Iron Black	Iron Galv.
BUTT WELD					
¼ to 3	54 to 57½	41½ to 44	⅜	15½ to 25½	+1½ to 11½
			½	19½ to 29½	1½ to 11½
			¾ to 1½	24½ to 34½	8 to 18½
LAP WELD					
2	47 to 50½	34½ to 38	2	20½ to 28½	6½ to 14½
2½ to 6	50 to 53½	37½ to 41	2½ to 6	22½ to 30½	9½ to 17½
7 to 12	47 to 50½	33½ to 37	7 to 12	19½ to 27½	6½ to 14½
13 and 14	37½ to 41				
15	35 to 38½				
BUTT WELD, EXTRA STRONG, PLAIN ENDS					
¼ to 1½	52 to 55½	39½ to 43	¾ to 1½	24½ to 34½	9½ to 19½
2 to 3	53 to 56½	40½ to 44			
LAP WELD, EXTRA STRONG, PLAIN ENDS					
2	45 to 48½	33½ to 37	2	21½ to 29½	8½ to 16½
2½ to 4	48 to 51½	36½ to 40	2½ to 4	23½ to 31½	11½ to 19½
4½ to 6	47 to 50½	35½ to 39	4½ to 6	22½ to 30½	10½ to 18½
7 to 8	43½ to 46½	29½ to 33	7 to 8	14½ to 22½	2½ to 10½
9 to 12	38 to 41½	24½ to 28	9 to 12	9½ to 17½	5½ to +2½

STEEL—From warehouses at the places named the following discounts hold for steel pipe:

	Black New York	Black Chicago	Black St. Louis
¼ to 3 in. butt welded	38%	54@40%	37%
2½ to 6 in. lap welded	33%	50@40%	33½%
	Galvanized New York	**Galvanized Chicago**	**Galvanized St. Louis**
¼ to 3 in. butt welded	22%	40½@30%	22%
2½ to 6 in. lap welded	18%	37½%@27½	19%

Malleable fittings, Class B and C, from New York stock sell at + 32% list prices. Cast iron, standard sizes, net.

CAST-IRON PIPE—The following are prices per net ton for carload lots:

	New York Current	New York One Month Ago	New York One Year Ago	Chicago	St. Louis	San Francisco
4 in.	$87.22	$87.22	$57.30	$88.10	$84.70	$110.70
6 in. and over	77.22	77.22	54.30	83.10	80.70	105.70

Gas pipe and Class "A," $4 per ton extra; 16-ft. lengths, $1 per ton.

CLAY DRAIN TILE—The following prices are per 1000 lin.ft.:

Size, In.	New York Current	New York One Year Ago	St. Louis	Chicago	San Francisco	Dallas
3	$62.00	$35.00	$60.00	$60.00	.....	$60.00
4	77.50	51.00	70.00	80.00	$90.00	62.00
5	110.00	65.00	....	100.00	115.00	84.00
6	140.00	90.00	125.00	120.00	150.00	110.00
8	228.00	130.00	195.00	180.00	250.00	181.00

SEWER PIPE—The following prices are in cents per foot for carload lots:

Size, In.	New York Current Delivered	New York Year Ago Delivered	St. Louis	Chicago	San Francisco	Dallas
3	$0.24	$0.102	....	$0.15	$0.14	.....
4	.24	.102	....	.15	.175	$0.25
5	.36	.153	....	.225	.21	.....
6	.36	.153	$0.21	.225	.245	.35
8	.56	.238	.30	.35	.35	.50
10	.84	.357	.42	.525	.49	.....
12	1.08	.459	.54	.625	.63	.90
15	1.61	.612	.806	.90	1.05	.....
18	2.30	.85	1.054	1.25	1.47	.....
20	2.76	1.02	1.426	1.50	1.96	.....
22	3.68	1.36	....	2.00	....	.....
24	4.14	1.53	1.86	2.25	2.52	.....
27	....	2.45	3.00	3.50	3.50	.....
30	....	2.664	3.65	4.00	4.20	.....
33	....	3.51	4.60	4.75	....	.....
36	....	3.9975	4.90	5.50	....	.....
	3	5	8	12	24	36
Boston	$1.68	$0.252	$0.392	$0.756	$2.52	$6.457
Minneapolis	.....	.....	47	.85	2.75	6.16
Denver	Quotations not available					
Seattle	.....	.....	40	.80	2.88	.....
Kansas City	No prices obtainable					
Los Angeles	.0975*	.1525*	.27	.48	.60*	.....
New Orleans	.....	.18	.425	.7225	2.7625	.....
Cincinnati	.156	.234	.364	.712	2.34	.....
Atlanta	.16*	.24*	.37½	.64	2.44	.....
Montreal, *delivered*	.30	.45	.85	1.35	4.50	.....
Detroit	.147	.22	.345	.665	2.30	5.23
Baltimore, *delivered*	.....	.351	.546	1.053	3.51	.....

* 4-in., 6-in., 30-in. respectively.

ROAD AND PAVING MATERIALS

ROAD OILS—Following are prices per gallon in tank cars 8000 gal. minimum f.o.b. place named:

	Current	One Year Ago
New York, 45% asphalt (at terminal)	$0.12	$0.[illegible]
New York, 65% asphalt (" ")	.12	.09
New York, binder (" ")	.12	.[illegible]
New York, flux (" ")	.11	.04½
Liquid asphalt	.11	.....
St. Louis, 40% asphalt	.12	.04½
Chicago, 40-50% asphalt	.08½	.0[illegible]
Chicago, 60-70% asphalt	.08½	.0[illegible]
Dallas, 40-50% asphalt	.10	.07
Dallas, 60-70% asphalt	.13	.08
Dallas, 75-90% asphalt	.15	.10
San Francisco, binder, per ton	15.00	.....

ASPHALTUM—Price per ton in packages (350-lb. bbls. or 425-lb. drums), and in bulk in carload lots:

	Package	Bulk
New York (Bayonne, N. J.)	$36.50	$[illegible]
Boston	42.42	37.00
Chicago	37.50	30.00
San Francisco	21.50	15.00
Dallas	50.00	40.00
Seattle	27.00	
Denver	.....	50@65
Minneapolis	34.00	28.00
Kansas City	40.00	32.00
St. Louis	40@45	
Baltimore	42.00	
Los Angeles	21.15	
Montreal	.....	37.00
Atlanta	56.50	
Detroit	49.00	42.25
Maurer, N. J.	35.00	32.00
	42.00	41.00

PAVING STONE—

New York	5-in. granite	No quotations	
Chicago	About 4x8x4 dressed	$3.40	sq.yd.
	About 4x8x4 common	3.05	sq.yd.
San Francisco	Basalt block 4x7x8	65.00	per M
Kansas City	Granite	3.65	sq.yd.
Boston	5-in. granite	110.00	per M
Atlanta	Granite	2.00	sq.yd.
Detroit	Granite, 26½ blocks per sq. yd.	4.50	sq.yd.
Baltimore	Granite	2.50	sq.yd.
Montreal	Granite	5.90	sq.yd.
New Orleans	Granite	3.00	sq.yd.
Cincinnati	Granite	3.25	sq.yd.

FLAGGING—

New York	Bronx	$0.25	sq.ft.
	Manhattan, 4 ft.	.26	sq.ft.
	Queens, 5 ft.	.26	sq.ft.
	6x20-in. cross-walk	.95	lin.ft.
Chicago	18 in. wide	.70	lin.ft.

CURBING—Bluestone per lineal foot, in New York, costs 70c. for 5x16 in., 80c. for 5x18 in.

WOOD BLOCK PAVING—

	Size of Block	Treatment	Per Sq.Yd.
New York	3½	16	$3.62
New York	4	16	3.99
Boston	3	16	3.00
Chicago	4	16	3.75@4.00
Chicago	3½	16	3.25@3.50
St. Louis	3½	16	3.10
St. Louis	4	16	3.55
Seattle	4	16	Off market
Kansas City	4	16	3.00
Minneapolis	3½	16	3.00
Atlanta	3½	16	2.30
New Orleans	3	16	2.99
New Orleans	3½	16	3.42
New Orleans	4	16	3.85
Dallas	4	18	4.00
Baltimore	3½	16	3.80
Montreal	4	16	4.60
Detroit	3½	16	3.40

CONSTRUCTION MATERIALS

SAND AND GRAVEL—Price for cargo or carload lots is as follows, per cu.yd.:

	Gravel 1½ In. Current	Gravel 1½ In. One Yr. Ago	Gravel ¾ In. Current	Gravel ¾ In. One Yr. Ago	Sand Current	Sand One Yr. Ago
New York	$3.00	$2.00	$3.00	$2.00	$1.50	$1.25
Denver	2.00	1.60	1.80	1.60	1.60	1.25
Chicago	2.75	2.00	2.75	2.00	2.75	2.00
Kansas City	3.25	2.50	3.75	3.00	1.25†	1.00
St. Louis	1.65	1.78	1.70	1.82	1.70*	1.68
Seattle, per ton	1.25	1.20	1.25	1.25	1.25	1.05
Dallas	2.50	3.50	2.50	3.50	2.00	2.25
Minneapolis	2.00	1.25	....	1.35	1.00	.60
Cincinnati	2.00	....	2.00	....	2.00	1.35‡
San Francisco	2.50	1.15	2.50	1.15	1.65	1.00
Boston	2.00	1.60‡	2.60	1.65‡	1.60	....
New Orleans	3.60	2.40	....	2.40	1.85	1.20
Los Angeles	1.25	1.02	1.25	1.02	1.15	.70
Atlanta, per ton	3.12	2.25	....	....	1.62	1.15
Detroit	1.85*	2.50	1.85*	1.90	3.50	2.50
Baltimore, per ton	1.40‡	1.54	1.60‡	1.60	.70	.65
Montreal, per ton	1.50‡	1.20	....	....	1.25‡	1.10

* Fine white sand, Pacific and Ottawa, per ton $6.
† Kaw River sand is $1.75 per yd. ‡ per ton. ‡delivered

CRUSHED STONE—Price for cargo or carload lots is as follows, per cu. yd.:

	1½ In. Current	1½ In. One Year Ago	¾ In. Current	¾ In. One Year Ago
New York	$1.90@2.00	$1.65@1.75	$2.15	$1.75@1.85
Chicago	2.75	2.00	2.75	2.00
St. Louis	2.00	1.50	2.00	1.50
Dallas	2.50	2.90	2.50	2.80
San Francisco	2.50	1.50	2.50	1.50
Boston	3.00*(del)	2.75	3.00 (del)	2.75
Minneapolis	2.00†	1.15	2.25†	1.25
Denver	....	....		1.60
Kansas City	2.35	2.25	2.35	2.35
Seattle (Del.)	3.50	2.00	3.50	2.00
Atlanta	3.25	2.55	3.50	2.65
Cincinnati	2.30	....	2.15	....
Los Angeles	1.60*	1.20	1.70*	1.12
Detroit	2.00	1.75	2.00*	1.75
Baltimore	1.75*	1.25	1.75*	1.50
Montreal	2.30*	1.90	2.55*	2.15

* Per ton. † Limestone: traprock, $1.60 and $1.80 per ton for 1½ and ¾-in.

CRUSHED SLAG—Price of crushed slag per net ton in carload lots:

	1½-In.	¾-In.	Roofing	Sand
Lebanon or Bethlehem, Pa	$1.00	$1.00	$2.50	$0.90
Easton, Pa	1.20	1.20	3.00	1.10
Buffalo, N. Y	1.25	1.00	2.00	1.00
East Canaan, Conn	1.25	1.35	3.50	1.10
Birmingham, Ala	1.25	1.25	2.05	1.00
Toledo, Ohio	1.50	1.50	2.35	....

LIME—Warehouse prices:

	Hydrated per Ton Finished	Hydrated per Ton Common	Lump per 200-Lb. Barrel Finished	Lump per 200-Lb. Barrel Common
New York	$21.00	$20.00	$3.80*-at plant	$3.60*
Kansas City	27.20	26.20	2.50	2.40
Chicago	....	...	.....	1.65
St. Louis	27.00	21.00	.....	2.75
Boston	28.00	27.00	....	3.95†
Dallas	....	25.00	....	2.50†
Cincinnati	17.60	17.60	.....	2.10‡
San Francisco	25.40	22.00	.....	2.25
Minneapolis	28.00	21.00	2.10	1.80
Denver	32.00	.....	1.05 (bu.)	
Detroit	22.00	19.00	2.00†	1.81†
Seattle	30.00	.....	2.85†	
Los Angeles	2.75†	2.20†	2.75†	2.00†
Baltimore	23.50 (East)	.....	.....	13.00‡
Montreal	25.00	25.00	15.00‡	15.00‡
Atlanta	.....	...	3.00†	2.75†
New Orleans	24.50	24.50	3.00	2.85

* 300-lb. barrels. †Per 180-lb. barrel. ‡ Per ton.

NOTE—Refund of 10c. per barrel with 25c per ton off on hydrated.

NATURAL CEMENT—Price to dealers for 500 bbl. or over, f. o. b., exclusive of bags:

	Current	One Year Ago
Minneapolis (Rosendale)	$1.85	$1.45
Kansas City (Ft. Scott)	1.60	1.50
New Orleans	3.36	2.52
Atlanta (Magnolia)	1.90	1.85
Cincinnati (Louisville)	2.85	1.35
Boston (Rosedale)	2.35	

PORTLAND CEMENT—Current prices are for barrels in carload lots, *without* bags, to contractors:

	Current Without Bags	One Month Ago Without Bags	One Year Ago Without Bags
New York (del.)	$4.10	$4.10	$2.80
Jersey City (del.)	3.55	4.39	2.47
Boston	3.63	3.32	2.42
Chicago	2.35	2.35	2.00
Pittsburgh	2.42	2.42	2.05
Cleveland	2.73	2.73	2.32
Detroit	2.78	2.71	2.08
Indianapolis	2.61	2.61	2.27
Toledo	2.71	2.71	2.12
Milwaukee	2.59	2.59	2.11
Duluth	2.35	2.35	2.10
Peoria	2.63	2.63	2.12
Cedar Rapids	2.71	2.71	2.18
Davenport	2.67	2.67	2.14
St. Louis	3.45	3.45	2.20
San Francisco	3.09	3.09	2.43
New Orleans	4.60	4.60	2.36
Minneapolis	3.50	3.30	2.22
Denver	3.25	3.25	3.12
Kansas City	2.76	2.76	2.26
Seattle	3.12	3.12	2.68
Dallas	3.85	3.85	2.03
Atlanta	3.75	3.75	2.50
Cincinnati	3.32	2.85	2.35
Los Angeles	3.10	3.10	2.78
Baltimore (del)	4.08	4.59	2.90
Montreal (including bags)	3.52	3.00	2.50

NOTE—Bag charge is generally 25c. each.

TRIANGLE MESH—Price per 100 sq. ft. in carload lots.

PLAIN 4-INCH by 4-INCH MESH

Style Number	Sectional Area Square Inches per Ft. Width	Fitts-burgh	New York*	Chicago†	St. Louis	Dallas	San Francisco
032	0.032	$1.24	$1.55	$0.98	$1.03	$1.13	$1.32
049	0.049	1.56	1.95	1.26	1.32	1.43	1.67
068	0.068	1.88	2.35	1.53	1.61	1.79	2.06
093	0.093	2.38	2.98	1.97	2.07	2.41	2.65
126	0.126	2.93	3.67	2.43	2.57	2.92	3.28
153	0.153	3.47	4.34	2.90	3.06	3.48	3.93
180	0.180	3.97	4.97	3.33	3.51	3.99	....
245	0.245	5.21	6.52	4.40	4.64	5.27	....
287	0.287	6.80	7.50	5.08	5.36	6.10	6.86
336	0.336	6.93	8.67	5.89	6.21	7.06	....
395	0.395	8.02	10.03	6.83	7.20	8.19	....
PAVING							
036P	0.036	$0.98	$1.23	$0.76	$0.79	$0.80	....
053P	0.053	1.34	1.68	1.06	1.12	1.12	....
072P	0.072	1.66	2.08	1.34	1.41	1.46	....
097P	0.097	2.11	1.76	1.73	1.82	1.88	....
049R	0.049	1.34	2.08	1.06	1.12	1.12	....
067R	0.067	1.66	2.64	1.34	1.49	1.46	....
089R	0.089	2.11	....	1.73	1.82	1.88	....

Made in 16-, 20-, 24-, 28-, 32-, 36-, 40-, 44-, 48-, 52- and 56-in. width in rolls 150-, 200- and 300-ft. lengths. Galvanized is about 10% higher.

EXPANDED METAL LATH—Prices in carload lots per 100 yd. for painted are as follows:

Gage	Weight	New York* Current Carloads	New York* Less Carloads	Chicago	St. Louis	San Francisco	Dallas
27	233	$32.10	$32.20*	$33.60†	$35.00	$37.25	$32.75
26	250	33.45	33.65*	35.20†	36.00		34.50
25	300	34.90	35.00*	36.90†	.....	40.50	36.75
24	340	36.50	36.65*	40.00†	39.00	46.25	39.25
22	450	39.60	39.80*	45.10†	.....	.....	43.30

* Delivered on job.
†Galvanized is $8 per 100 yd., additional.

BARS, CONCRETE REINFORCING—Following quotations are per 100 lb.:

ROLLED FROM BILLETS

In.	Mill Pittsburgh	New York Current	Chicago	Dallas	San Francisco
¾ and larger	$2.35@$3.50	$3.63@$3.70	$3.48@$3.87	$3.87	$4.75 $5.30
⅝	2.40@3.50	3.68@3.75	3.53@3.92	3.92	4.80 5.35
½	2.45@3.50	3.73@3.80	3.58@3.97	3.97	4.95 5.40
⅜	2.60@3.50	3.88@3.95	3.63@4.12	4.12	5.00 5.55
¼	2.85@3.50	4.13@4.20	4.18@4.57	4.57	5.05 5.80

Twisted bars out to length take extra of 27½c. per 100 lb.

ROLLED FROM RAILS

	Chicago	St. Louis	Dallas		Chicago	St. Louis	Dallas
¾ in. and larger	$4.00	$4.00	$4.25	⅝	$4.25	$4.25	.....
⅝	4.05	4.05	4.30	½			
½	4.10	4.10	....				

BRICK—To contractors price per 1000 in cargo or carload lots is as follows:

	Common Current	Common One Month Ago	Common One Year Ago	Paving Block 3-inch	Paving Block 4-inch
New York (del)	$22.70	$22.70	.....	$57.20*	$63.30*
New Orleans	25.50	25.50	$19.00		....
Chicago	15.00	15.00	12.00	45.00	
St. Louis, salmon	17.00†	17.00	12.00	.....	....
Denver	15.00	15.00	14.00	.....	....
Dallas	25.00	25.00	18.57	.....	
San Francisco	18.00	18.00	12.50	.....	44.38
Los Angeles	13.50	13.50	12.50		
Boston	30.00	30.00	18.00	59.25*	66.25*
Minneapolis (del.)	24@26	24.00	14.50	.....	
Kansas City	22.00	22.00	16.00		
Seattle	19.00	19.00	15.00	48.00	53.50
Cincinnati	22@23	24.00	17.00	.....	....
Montreal (del.)	20.00	20.00	15.00		
Detroit	20.00	22.00	17.25	46.00	52.00
Baltimore (del.)	20.00–25.00	22.50	18.00	.....	44.00‡
Atlanta	20.00	20.00	.....		

*For paving blocks 3½x8½x3 and 3½x8½x4 respectively. †Hard brick $20.50 in St. Louis. ‡Vitrified, f. o. b. plant, Baltimore.

HOLLOW TILE—Price per block in carload lots for hollow building tile:

	New York Current on Trucks	New York One Year Ago	Chicago	St. Louis	San Francisco	Factory Perth Amboy N. J.
4x12x12	$0.2444*	$0.11475	$0.1347	$0.145	$.145	....
6x12x12	3259*	.153	.2021	....	.21	....
8x12x12	4345*	.204	.2425	.245	.29	.4358
10x12x12	.....	.....	.3032	....	.....	.5447
12x12x12	.....	.....	.3638	.36	.....	.6537

*Partition title. Less 5% for cash, 15 days.

	4x12x12	8x12x12	12x12x12
Boston	$0.19	$0.44	$0.475
Minneapolis	.121	.2117	.3314
Cincinnati	125	2	
Kansas City	No prices obtainable		
Denver	Quotations withdrawn		
Seattle	.13	.175	.30
Los Angeles	.10	.175	....
New Orleans	.30	.40	.60
Detroit	15	27	.39
Montreal	.22	.30	.36
Baltimore	.16	.27	.45
Atlanta	.142	237	....

STRUCTURAL MATERIAL—Following are base prices f.o.b. mill, Pittsburgh, together with quotations per 100 lb. from warehouses at places named:

	Mill Pittsburgh	New York Current	New York 1 Yr. Ago	St. Louis	Chicago	San Francisco
Beams, 3 to 15 in.	$2.45@ $3.00	$3.80	$3.47	$4.04	$3.58	$5.55
Channels, 3 to 15 in.	2.45@ 3.00	3.80	3.47	4.04	3.58	5.55
Angles, 3 to 6 in., ¼ in. thick	2.45@ 3.00	3.80	3.47	4.04	3.58	5.55
Tees, 3 in. and larger	2.45@ 3.75	3.85	3.52	4.09	3.58	5.55
Plates	2.65@ 4.00	4.00	3.67	4.24	3.78	5.80

RIVETS—The following quotations are per 100 lb.:

STRUCTURAL

	Warehouse: Mill Pittsburgh	New York Current	New York One Yr. Ago	Chicago	St. Louis	San Francisco	Dallas
¾ in. and larger	$4.50	$6.11	$4.72	$5.00	$5.69	$7.05	$7.50

CONE HEAD BOILER

¾ in. and larger	4.60	7.10	$4.82	5.10	5.79	7.15	7.50
⅝ and 11/16	4.75	7.25	4.97	5.25	5.94	7.40	7.50
½ and 9/16	5.00	7.50	5.32	5.60	6.19	7.65	7.75

Lengths shorter than 1 in. take an extra of 50c. Lengths between 1 in. and 2 in. take an extra of 25c.

NAILS—The following quotations are per keg from warehouse:

	Mill Pittsburgh	New York	Chicago	San Francisco	Dallas	Montreal
Wire	$4.25	$8.50	4.45	$6.45	$6.90	$4.95
Cut		10.00	8.00@11.00	8.95	6.40	5.00

PREPARED ROOFINGS—Standard grade rubbered surface, complete with nails and cement, costs per square as follows at maufacturing points:

	New York 1-Ply c.l.	New York 2-Ply l.c.l.	New York 3-Ply c.l.	Philadelphia 1-Ply c.l.	Philadelphia 2-Ply l.c.l.	Philadelphia 3-Ply c.l.
No. 1 grade	$2.50	$3.00	$3.55	$2.40	$2.90	$3.45
No. 2 grade	2.25	2.70	3.20	2.15	2.60	3.10

Slate-surfaced roofing (red and green) in rolls of 108 sq.ft. costs $4.50 per roll in carload lots and $4.75 for smaller quantities.

Shingles, red and green slate finish, cost $10.00 per square in carloads; $10.25 in smaller quantities, in Philadelphia.

ROOFING MATERIALS—Prices per ton f.o.b. New York and Chicago:

Tar felt (14 lb. per square of 100 sq.ft.) per roll	$3.55
Tar pitch (in 400-lb. bbl.) per 100 lb.	2.25
Asphalt pitch (in barrels) per ton	56.50
Asphalt felt (light) per ton	132.00
Asphalt felt (heavy) per ton	138.00

SHEETS—Quotations are in cents per pound in various cities from warehouse also the base quotations from mill:

Blue Annealed	Large Mill Lots Pittsburgh	St. Louis	Chicago	San Francisco	New York Current	New York One Yr. Ago
No. 10	$3.55@$7.00	$7.09	$6.13	$8.65	$5.90@$8.00	$4.82
No. 12	3.60@ 7.05	7.09	6.18	8.70	5.95@ 8.05	4.87
No. 14	3.65@ 7.10	7.09	6.23	8.75	6.00@ 8.10	4.92
No. 16	3.75@ 7.20	7.09	6.33	8.85	6.10@ 8.20	5.02
Black						
*Nos. 18 and 20	4.20@ 6.20	8.10	6.90	10.60	7.65@ 9.80	5.80
*Nos. 22 and 24	4.25@ 6.25	8.10	6.95	10.65	7.70@ 9.85	5.85
*No. 26	4.30@ 6.30	8.10	7.00	10.70	7.75@ 9.90	5.90
*No. 28	4.35@ 6.35	8.10	7.10	10.80	7.85@10.00	6.00
Galvanized						
No. 10	4.70@ 7.00	9.60	7.25	....	8.05@11.50	6.25
No. 12	4.80@ 7.10	9.60	7.30	11.35	8.15@11.50	6.30
No. 14	4.80@ 7.10	9.60	7.45	11.35	8.15@11.50	6.35
Nos. 18 and 20	5.10@ 7.40	9.60	7.75	11.65	8.40@11.90	6.65
Nos. 22 and 24	5.25@ 7.55	9.60	8.15	11.80	8.55@12.05	6.80
*No. 26	5.40@ 7.70	9.60	8.30	11.95	8.70@12.20	6.95
*No. 28	5.70@ 8.00	9.60	8.60	12.25	9.00@12.50	7.25

*For painted corrugated sheets add 30c. per 1000 lb. for 5 to 28 gage; 25c. for 19 to 24 gages; for galvanized corrugated sheets add 15c., all gages.

LINSEED OIL—These prices are per gallon:

	New York Current	New York One Year Ago	Chicago Current	Chicago One Year Ago
Raw in barrel (5 bbl.)	$0.95	$2.15	$1.25	$2.37
5-gal. cans	1.10	2.30	1.50	2.57

WHITE AND RED LEAD—Base price per pound:

	Red Current Dry	Red Current In Oil	Red 1 Year Ago Dry	Red 1 Year Ago In Oil	White Current Dry and In Oil	White 1 Year Ago Dry and In Oil
100-lb. keg	14.25	15.75	13.00	14.50	14.25	15.50
25 and 50-lb. kegs	14.50	16.00	13.25	14.75	14.50	15.25
12½-lb. keg	14.75	16.25	13.50	15.00	14.75	15.50
5-lb. cans	17.25	18.75	15.00	16.50	17.25	15.00
1-lb. cans	19.25	20.75	16.00	17.50	19.25	16.00

500 lb. lots less 10% discount; 2000 lb. lots less 10-2½% discount.

LUMBER

San Francisco—Prices of rough Douglas fir No. 1 common, in more than carload lots:

Lumber Prices in Yards at San Francisco

	6-8-12 and 14 Ft.	10-16-18 and 20 Ft.	22 and 24 Ft.	25 to 32 Ft.
3x3 and 4	$30.00	$30.50	$31.50	$31.50
3x6 and 8	31.00	31.50	32.50	34.50
4x4-6 and 8	31.50	32.50	33.50	35.50
3x10 and 12	31.50	32.50	33.50	35.50
3x14	32.00	33.00	34.00	36.00
4x10 and 12	31.50	32.50	33.50	35.50
4x14	32.50	33.50	34.50	36.50

	24 Ft. and Under	25 to 32 Ft.	33 to 40 Ft.
6x10	$31.00	$33.00	$34.00
6x14	32.50	34.50	35.00
8x10	31.00	33.00	34.00
8x14	32.50	34.50	35.00

New York, Chicago and St. Louis

	Southern Pine New York* 20 Ft. and Under	Southern Pine New York* 22-24 Ft.	Southern Pine Chicago 20 Ft. and Under	Southern Pine Chicago 22-24 Ft.	Yellow Pine St. Louis 20 Ft. and Under	Yellow Pine St. Louis 22-24 Ft.
3x 4 to 8x8	$52.00	$53.00	$60.00	$61.00	46.50@56.75	48.25@58.00
3x10 to 10x10	57.00	56.00	62.00	63.00	48.75@60.75	50.00@62.00
3x12 to 12x12	63.00	62.00	64.00	65.00	53.25@65.25	54.50@66.50
3x14 to 14x14	68.00	67.00	67.00	68.00	62.00@73.75	63.00@75.00
3x16 to 16x16	75.00	74.00	72.00	73.00	68.00@80.00	69.00@81.00
3x18 to 18x18	87.00	86.00	77.00	78.00		
4x20 to 20x20	92.00	91.00	82.00	83.00		

*For long leaf pine. Short leaf pine up to 14 x 14 costs $15 per M. less.

Over 24 ft.—Add $1 for each additional 2 ft. in length up to 30 ft. for sizes 12 x 12 and under, for sizes over 12 x 12 add $2. for merchantable add $2 to sizes 10 x 10 and under. For prime add $2 to the price of merchantable for all sizes.

Other Cities

	8 x 8-In. x 20-Ft. and Under P.	8 x 8-In. x 20-Ft. and Under Fir	8 x 8-In. x 20-Ft. and Under Hemlock	8 x 8-In. x 20-Ft. and Under Spruce	12 x 12-In. 20 Ft. and Under P.	12 x 12-In. 20 Ft. and Under Fir
Boston	$65.00	$65.00	$52.00	$58.00	$82.00	$68.00
Kansas City	51.00	51.25	51.25	51.25	60.00	51.25
Seattle	.....	32.00	.....	.....	.....	32.00
New Orleans	38.00	.....	.....	.....	42.00	.....
Baltimore	70.00	.....	.....	.....	80.00	.....
Cincinnati	37.50	.....	.....	.....	45.00	.....
Montreal	87.00	87.00	70.00	85.00	79.00	110.00
Los Angeles †	.....	57.00	.....	.....	.....	59.00
Detroit	57.00	77.50	.....	.....	67.25	67.25
Denver	.....	42.75	.....	.....	.....	42.75
Minneapolis	..	46.00	43.00	.....	.....	46.00
Atlanta	45.00		.....	.....	70.00	

	1-In. Rough, 10 In. x 16 Ft. and Under P.	1-In. Rough, 10 In. x 16 Ft. and Under Fir	1-In. Rough, 10 In. x 16 Ft. and Under Hemlock	2-In. T. and Gr. 10 In. x 16 Ft. P.	2-In. T. and Gr. 10 In. x 16 Ft. Fir
Boston	$62.00	$74.00	$47.00	$63.00	$76.00
Kansas City	102.00	106.50	106.50	113.00	112.75
Seattle	.....	37.50	.....	.....	38.50
New Orleans	65.00	.....	.....	40.00	.....
Baltimore	50@57.50	.....	.....	54@60	.....
Cincinnati	34.00	.....	.....	35.00	50.00
Montreal	80.00	80.00	70.00	85.00	85.00
Los Angeles	.....	58.00	.....	.....	.....
Detroit	43.00	.....	43.00	.....	44.00
Denver	.....	37.75	.....	.....	35.25
Minneapolis	.....	36.00	42.25	.....	34.75
Atlanta	50.00	.....	.....	45.00	.....

* Montreal—Up to 32 ft.: over which, $3.00 per M. increase up to 30 ft.

† Base price, 2 x 3's and 2 x 4's, 8 to 14 ft., is $54.00

Detroit—4 x 4 x 12, fir D, $50; rough fir, $53; 2 x 6 x 6, hemlock D sides, $50 2 x 12 x 18, rough fir, $52.50; 2 x 12 x 12, rough fir, $52; 2 x 4 x 16 fir D, $50

FREIGHT RATES

On finished steel products in the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, flat sheets (except planished), chains, etc., the following freight rates are effective in cents per 100 lb., in carloads of 36,000 lb.:

Boston	$0.41½	New Orleans	$0.51½
Buffalo	.29½	New York	.38
Chicago	.38	Pacific Coast (all rail)	1.06½†
Cincinnati	.33	Philadelphia	.35
Cleveland	.24	St. Louis	.47½
Denver	1.35*	St. Paul	.69½
Kansas City	.81½	Detroit	.33
		Baltimore	.33½

Note—Add 3% transportation tax. * Minimum carload, 40,000 lb.
† Minimum carload, 50,000 lb., structural steel only.

CONTRACTORS' SUPPLIES

STEEL SHEET PILING—The following price is base per 100 lb. f. o. b. Pittsburgh, with a comparison of a month and a year ago:

Current	One Month Ago	One Year Ago
$4.00@$4.50	$4.00@5.00	$2.55

WIRE ROPE—Discounts from list price on regular grades of bright and galvanized are as follows:

	New York
Hercules red strand, all constructions	20%
Patent flattened strand, special and cast steel	20%
Patent flattened strand, iron rope	5%
Plow steel round strand rope	30%
Special steel round strand rope	30%
Cast steel round strand rope	22½%
Iron strand and iron tiller	5%
Galvanized iron rigging and guy rope	+12%

San Francisco: Galvanized Iron Rigging and Guy Ropes, +17½%; Bright Plow, 25% off.

Chicago, + 10 on galvanized, 22½ — 2½ off on bright.

Western and California territory, 20% plow steel, 22½% galvanized iron rigging and guy rope.

Montana, Idaho and Arizona, 15% plow steel; 27½% galvanized iron rigging and guy rope.

MANILA ROPE—For rope smaller than ⅞-in. the price is ½ to 2c. extra; while for quantities amounting to less than 600 ft. there is an extra charge of 1c. The number of feet per pound for the various sizes is as follows: ⅝-in., 8 ft.; ¾-in., 6; ⅞-in., 4½; 1-in., 3½; 1⅛-in., 2 ft. 10 in.; 1¼-in., 2 ft. 4 in. Following is price per pound for ⅝-in. and larger, in 1200-ft. coils:

Boston	$0.28	Kansas City	$0.30½
New York	.27	New Orleans	.26½
Chicago	.27½	Los Angeles	.31
Minneapolis	.27	Seattle	.28
San Francisco	.25	St. Louis	.26½
Atlanta	.30	Montreal	.35½
Denver	.30	Detroit	.26
Cincinnati	.37	Baltimore	.25¾

EXPLOSIVES—Price per pound of dynamite in small lots and price per 25 lb. keg for black powder.

	Low Freezing 20%	Gelatin 40%	Gelatin 60%	Gelatin 80%	Black Powder
New York		$0.33½	$0.36½	....	$2.80
Boston	.265	.282	.322	$.352	
Kansas City	.2475	.27	.30	.34	2.40
Seattle	.18	.20½	.22½	.29½	2.60
Chicago	.2175	.2525	.2975	.34	2.45
Minneapolis	.2272	.2578	.2878		2.90
St. Louis	.25	.285	.315	.35.75	2.60
Denver	.2250	.26	.29	33.25	2.80
Dallas	.265*	.275	.3025	....	2.60
Los Angeles	.22	.27	.31		2.95
Atlanta	.2575	.2925	.3225	.3650	
Baltimore	.2525	.2875	.3175	.36	2.10
Cincinnati	.2275	.2525	.2725		2.30
Montreal	.30	.32	.37	.38	4.10
New Orleans	.2650	.295	.325	.3925	2.90

* 30 Per Cent.

POLES—For spruce and plain pine poles, delivered New York, the price is as follows:

Spruce 10-in. butts, 5-in. tops, length 20-30 ft.	$8.50
Spruce 12-in. butts, 6-in. tops, length 30-40 ft.	10.50
Pine 12-in. butts, 6-in. tops, length 41-50 ft.	13.75
Pine 14-in. butts, 6-in. tops, length 51-60 ft.	22.50
Pine 14-in. butts, 6-in. tops, length 61-71 ft.	25.25

	Dallas
6-in. x 20-ft.	$4.60
6-in. x 30-ft.	7.10
8-in. x 30-ft.	8.45
8-in. x 35-ft.	10.38

OLD MATERIAL—The prices following are per gross ton paid to dealers and producers in New York. In Chicago and St. Louis the quotations are per net ton and cover delivery at the buyer's works, including freight transfer charges.

	New York	Chicago	St. Louis
No. 1 railroad wrought	$20.00	$17.00	$17.00
Stove plate	19.50	21.50	19.00
No. 1 machinery cast	32.50	22.00	
Machine shop turnings	11.00	8.50	
Cast borings	14.50	11.00	8.00
Railroad malleable cast	20.00	20.00	17.00
Re-rolling rails	22.00		20.00
Relaying rails	50@55	40@45	40@45

SHIP SPIKES—Current prices per 100 lb.

In.	San Francisco Galv.	San Francisco Black	Seattle Black
½	$9.20	$8.50	$8.55
⅝	8.75	6.75	8.25
¾	8.60	6.60	8.30

Pittsburgh base, $4.75@$5.00 per 100 lb.

LABOR RATES AND CONDITIONS THROUGHOUT THE COUNTRY

S means scarce; E, enough; P, plentiful

Cities	Bricklayers	Carpenters	Hoisting Engineers	Hod Carriers	Pile Drivers	Structural Iron Workers	Common Labor	Remarks
Atlanta	$1.35E	$0.90E	$1.00E	$0.35E	....	....	$0.35E	Atlanta—Plenty of work.
Baltimore	1.00E	.80–90E	.87½E	.46–.54E	$0.74E	$1.00E	.35@.40E	Baltimore—Carpenters voted not to accept an advance from 90c. to $1 per per hour.
Boston	1@1.25P	1.00P	.90@1.00P	.70@.80P	.80@.90P	1.05@1.25P	.65@70P	Boston—Labor supply plentiful.
Cincinnati	1.25S	.90E	.75E	.70E	....	.87½E	.60S	Cincinnati—Common labor scarce.
Chicago	1.25	1.25	....	....	....	1.25	1.00	Chicago—Labor plentiful but independent. Contractors report increased efficiency.
Cleveland	1.00S	.90S	1.00E	.57½E	.80E	1.00E	.57½E	Cleveland—Situation same as last month.
Dallas	1.25P	1.00P	1.00E	.60E	1.00E	1.25S	.50@1.00P	Dallas—All labor plentiful.
Denver	1.25E	1.16½E	1.16½@1.18¾E	.75@81¼E	....	1.15⅞E	.50@56.¼	Denver—No strikes. Labor supply not excessive. Work going forward satisfactorily.
Detroit	1.25P	85@1.00P	1.10P	.70E	1.10P	1.25E	.50@.60E	Detroit—Labor plentiful in all trades. Not much building in immediate prospect. Work already under contract is going forward.
Kansas City	1.12½	1.00	1.00	.90	1.00	1.10	.75	Kansas City—We report no change since last month.
Los Angeles	1.25P	.87½P	.87½P	1.00P	.87½P	.87½P	.56¼@.62½E	Los Angeles—Rates shown are union; non-union a little less; but union scale prevails generally.
Minneapolis	1.25	1.00P	1.00	.75	....	1.00	.60	Minneapolis—Considerable unemployment; common labor as low as 50c. Logging camps have taken up some of the excess labor due to close of the harvest season.
Montreal	.90	.85S	.65S	.50S	.55	.65	.47½S	Montreal—Common labor now plentiful.
New Orleans	1.00E	.95E	1.00E	.65E	1.00E	1.00E	.40S	New Orleans—Building trade stagnant, owing to high cost of labor and materials.
New York	1.25	1.12½	1.25	.87½	1.12½	1.12½	.75@.80	New York—Agreement of Nov. 20, 1919, was modified as shown, effective May 1, 1920. Excavators, 75c.; Concrete workers, 81¼c.
Pittsburgh	1.50P	1.25P	1.12½P	1.00P	1.00P	1.25E	.80P	Pittsburgh—Conditions normal.
St. Louis	1.25E	1.25E	1.25E	.85E	1.00P	1.25E	.52@.75E	St. Louis—Hoisting engines receive $1.37½ on double hoist. Plaster hodcarriers receive 94¼c. Labor situation easy in all building trades.
San Francisco	1.25E	1.12½E	1.12½E	1.00E	1.12½E	1.12½E	.81¼E	San Francisco—Sufficient labor.
Seattle	1.25	1.00	1@1.12	.87	1.00	1.00	.75P	Seattle—Not much building construction in prospect.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 6	New York, N. Y.	Dec. 2
Dec. 7	Saginaw, Mich.	Nov. 18
Dec. 7	Milwaukee, Wis.	Dec. 2
Dec. 15	Poughkeepsie, N. Y. Adv. Nov. 18 to Dec. 2.	Nov. 18
Dec 15	Fall River, Mass.	Dec. 2
Jan. 10	Hartford, Conn. Adv. Nov. 25 and Dec. 2.	Dec. 2

SEWERS

Dec. 6	Little Falls, Minn.	Nov. 18
Dec. 6	St. George, S. I., N. Y.	Dec. 2
Dec. 7	Long Island City, N. Y.	Dec. 2
Dec. 8	Ossining, N. Y.	Nov. 18
Dec. 13	Euclid, O.	Dec. 2
Jan. 5	Lima, O. Adv. Dec. 2.	Dec. 2

BRIDGES

Dec. 7	Chapman, Kan.	Nov. 25
Dec. 7	Grand Rapids, Minn.	Nov. 18
Dec. 7	Grand Rapids, Minn.	Dec. 2
Dec. 8	Manning, S. C.	Nov. 25
Dec. 10	White Springs, Fla.	Nov. 18
Dec. 14	Winnipeg, Man.	Nov. 25
Dec. 14	Portsmouth, N. H.	Dec. 2
Dec. 17	Detroit, Mich.	Nov. 25
Dec. 17	Phila., Pa. Adv. Dec. 2.	Dec. 2
Dec. 18	Dayton, O. Adv. Dec. 2.	Dec. 2
Dec. 18	Racine, Wis.	Dec. 2
Dec. 21	Morgan, Ga.	Dec. 2
Dec. 22	Elizabeth, N. J. Adv. Dec. 2.	Dec. 2
Dec 23	Detroit, Mich. Adv. Dec. 2.	Dec. 2
Jan. 6	Miami, Fla. Adv. Dec. 2.	Dec. 2
Jan. 7	Jacksonville, Fla.	Dec. 2
Feb. 7	Bainbridge, Ga	Nov. 25
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Dec. 6	Indiana	Dec. 2
Dec. 6	Wisconsin	Dec. 2
Dec. 6	Wichita Falls, Tex.	Dec. 2
Dec. 7	Grand Rapids, Minn.	Nov. 18
Dec. 7	Indiana	Nov. 25
Dec. 7	Missouri	Nov. 25
Dec. 7	Maryland Adv. Dec. 2.	Dec 2
Dec. 7	Indiana	Dec. 2
Dec. 7	Vienna, Ga.	Dec. 2
Dec. 7	Union City, Pa.	Dec. 2
Dec. 7	Wisconsin	Dec. 2
Dec. 8	Creston, Ia.	Nov. 25
Dec. 8	Belvidere, N. J. Adv. Nov. 18 to Dec 2.	Nov. 18
Dec. 8	Marshalltown, Ia.	Dec 2
Dec. 9	San Antonio, Tex.	Dec. 2
Dec. 10	Florida	Nov. 18
Dec. 10	Missouri	Nov. 25
Dec. 13	Bronxville (Yonkers P. O.) N. Y. Adv. Dec. 2.	Dec. 2
Dec. 13	Merced, Cal.	Dec. 2
Dec. 13	Childress, Tex.	Dec. 2
Dec. 13	Canadian, Tex.	Dec. 2
Dec. 13	El Paso, Tex.	Dec. 2
Dec. 15	Princeton, W. Va.	Dec. 2
Dec. 15	Des Moines, Ia.	Dec. 2
Dec. 21	New Mexico	Dec. 2
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 10	Stockton, Kan.	Nov. 18
Mar. 1	Ontario	Dec. 2
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Dec. 7	Jefferson, Ia.	Dec. 2
Dec. 8	Creston, Ia.	Dec 2
Dec. 15	Clarinda, Ia.	Nov. 25
Dec. 20	Wapello, Ia.	Dec 2

RAILWAYS

Dec. 10	New York	Dec. 2

INDUSTRIAL WORKS

Dec. 6	Ridgefield, N. J.	Dec. 2
Dec. 8	Youngstown, O.	Dec. 2
Dec. 9	West Brownsville, Pa	Dec. 2

BUILDINGS

Bids Close		See Eng. News-Record
Dec. 6	Ossining, N. Y.	Oct. 21
Dec. 6	Atlantic City, N. J.	Nov. 11
Dec. 6	Brooklyn, N. Y.	Nov. 25
Dec. 6	Tulsa, Okla.	Dec. 2
Dec. 7	Detroit, Mich.	Nov. 25
Dec. 10	Brooklyn, N. Y.	Oct. 21
Dec. 13	Lakewood (Cleveland P. O.), O.	Nov. 25
Dec. 13	Cincinnati, O.	Dec. 2
Dec. 13	Detroit, Mich.	Dec. 2
Dec. 14	Hyde Park (Boston P. O.), Mass.	Nov. 25
Dec. 14	Storrs (Eagleville P. O.) Conn.	Nov. 25
Dec. 15	Frederic, Wis.	Nov. 18
Dec. 15	Clear Lake, Wis.	Nov. 18
Dec. 15	Pocahontas, Ia.	Nov. 25
Dec. 15	Wabash, Ind.	Nov. 25
Dec. 15	Bethlehem, Pa	Dec. 2
Dec. 15	Chicago, Ill.	Dec. 2
Dec. 15	Cloquet, Minn.	Dec. 2
Dec. 18	Brainerd, Minn.	Dec. 2
Dec. 21	Detroit, Mich.	Nov. 25
Dec. 21	Cleveland Heights (Warrensville P. O.), O.	Dec. 2
Jan. 1	Marietta, O.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 18
Jan. 1	Little Rock, Ark.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 25
Jan. 1	Springfield, Mo.	Dec. 2
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Nov. 25
Jan. 2	Duluth, Minn.	Oct 28
Jan. 2	Cortland, N. Y.	Oct 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan. 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis	Nov. 11
Jan. 2	Jamestown, N. D	Dec. 2
Jan. 4	Greeley, Col.	Nov. 25
Jan. 4	Emporia, Kan.	Dec. 2
Jan. 4	Union Grove, Wis.	Dec. 2
Jan. 19	Buffalo, N. Y. Adv. Dec. 2.	Dec 2
Feb. 15	El Paso, Tex.	Dec. 2
Mar. 1	Duluth, Minn.	Dec. 2

FEDERAL GOVERNMENT WORK

Dec. 6	Mailing Vestibule, etc. — Spartansburg, S. C.	Nov. 18
Dec. 6	Smoke Stack—Washington, D. C.	Nov. 25
Dec. 8	Remodeling Post Office — Kalamazoo, Mich.	Nov. 25
Dec. 9	Surface Drainage System —Galveston, Tex.	Nov. 18
Dec. 10	Mailing Vestibule—Battle Creek, Mich.	Nov 25
Dec. 10	Roofing and Repainting—Phila., Pa.	Nov. 25
Dec. 15	Radio Building—Port Arthur, Tex.	Nov. 25
Dec. 15	Hydraulic Turbine—Florence, Ala. Adv. Nov. 18 to Dec. 2.	Nov. 25
Dec. 15	Gate and Valve Operating Machinery—Louisville, Ky. Adv. Nov. 18 to Dec. 2.	Nov. 25
Dec. 16	Alterations, Repairs, Plumbing, etc.—Covington, Ky.	Nov. 25
Dec. 20	Steel Dump Scows—Louisville, Ky.	Nov. 18
Dec. 20	Refrigeration Building — Columbus, Ga. Adv. Dec. 2.	Dec. 2
Dec. 22	Electric Towing Locomotive —Washington, D. C. Adv. Dec. 2.	Dec. 2

MISCELLANEOUS

Dec. 7	Brass Strainers, etc—Phila. Pa.	Dec. 2
Dec. 9	Pier Fender, etc.—New York N. Y.	Dec. 2
Dec. 9	Ferryboat — New York, N. Y.	Dec. 2
Dec. 9	Equipment — New York, N. Y.	Dec. 2
Dec. 10	Water Tube, Boilers and Equipment — Milwaukee, Wis. Adv. Nov. 18 to Dec. 2.	Nov. 25
Dec. 13	Paving Materials—Minneapolis, Minn.	Dec. 2
Dec. 14	Dock Wall—Buffalo, N. Y. Adv. Nov. 18 to Dec. 2.	Nov. 18
Dec. 14	Incinerator—Long Branch, N. J. Adv. Dec. 2.	Dec. 2
Dec. 14	Wire—New Orleans, La. Adv. Nov. 25 and Dec. 2.	Dec. 2
Dec. 15	Laundry Equipment—Hudson, N. Y. Adv. Dec. 2.	Dec. 2
Dec. 15	Laundry Equipment—Brooklyn, N. Y.	Dec 2
Dec. 17	Water Tube, Boilers and Equipment — Milwaukee, Wis. Adv. Dec. 2.	Dec. 2
Dec. 21	Foundations—Phila., Pa. Adv. Dec. 2.	Dec. 2
Jan. 10	Filter Sand — Hartford, Conn. Adv. Dec. 2.	Dec. 2
Jan. 11	Motors and Pumps—Sacramento, Cal.	Dec. 2
Jan. 26	Wall—Chesterville, Ont	Nov. 25

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Groveland (Haverhill P. O.)—Town plans to build water mains in various streets. Cost to exceed $10,000. A. J. Wales, clk. Private plans.

N. C., Burlington—City plans to expend $25,000 for waterworks system. M. W. McPherson, clk.

N. C., Raleigh—City plans to issue $500,000 bonds to extend waterworks system. J. B. Bray, comr pub. wks.

N. C., Wilson—Town plans to issue $325,500 bonds to extend waterworks system. T. A. Hinnant, clk.

N. C., Zebulon—City plans to expend $60,000 to improve waterworks and sewerage system.s M. B. Humphrey, mayor.

Mich. Owosso—City Comn. sold $78,500 bonds to build extensions to watermains.

Ill., Elgin—City election in January to vote on $150,000 bonds to improve waterworks system, to include sinking 2 or 3 wells. H. L. Zook, clk.

Ill., Hanover—City receives bids about Feb. 1, improving waterworks system, to include deep well, pump house, pump, elevated tank and water distribution system. About $30,000. Holland, Ackerman & Holland, Ann Arbor, Mich, consult. engrs.

Wis., Park Falls—City plans to lay 2 mi. water mains and install new pumping equipment. About $50,000. R. T. Fritz, city clk. Probably private plans.

Wis., Racine—City plans to improve and build extensions to waterworks system. About $1,936,000. P. H. Connolly, city engr. Noted Oct. 28.

Minn., Annandale—See "Sewers."

Minn., Rush City—City had plans prepared by Druar & Milinowski, engrs., 512 Globe Bldg., St. Paul, and soon receives bids building waterworks system, involving 25,000 ft. 4-8 in. c.i. or wood stave pipe. About $60,000. J. F. Sommer, clk.

Minn., Sauk Center—City plans election soon to vote on $60,000 bonds to improve waterworks system. L. P. Wolff, 1000 Guardian Life Bldg., St. Paul, engrs.

Okla., Sapulpa—City having plans prepared for waterworks system to include new supply system, dam, reservoir filters, basins, force main, distributing reservoirs, etc. Holway Eng. Co., 230 Lynch Bldg., Tulsa, engrs.

Ont., Brockville—Provincial Bd. Health, Toronto, authorized construction of filtration plant, here. About $50,000.

Ont., Ottawa—City plans to expend $100,000 for extending water mains in various streets and $40,000 for purchasing and installing water meters. A. F. Macallum, city engr.

Ont., Port Credit—Municipal Council soon receives bids building waterworks system. About $150,000.

Ont., Richmond Hill—City having plans prepared by E. A. James Co. Ltd., engrs., 36 Toronto St., Toronto, for complete waterworks system, consisting of wells, centrifugal pumps, pumphouse, reservoir, and distribution system, involving 10,000 ft. 6-12 in. c.i. pipe. About $95,000.

Ont., Shelburne—Town plans to extend waterworks system, to include distributing system, centrifugal pumps, pump house and 10,000 ft. 6 in. c.i. pipe. About $100,000. E. A. James Co., 36 Toronto St., Toronto, engrs.

Ont., Smiths Falls—Town Council soon receives bids building new filtration plant. About $15,000. J. A. Lewis, clk.

Waterworks (Continued)

BIDS DESIRED

Mass., Fall River—Until Dec. 15, by Quequechan River Comn., City Hall, building sand bar dam, foundation for pumping station and dredging, Contr. A; superstructure of sand bar pumping station, including lighting, plumbing and heating equipment, Contr. B; equipment and piping for sand pumping station, Contr. C. H. K. Barrows, 6 Beacon St., Boston, engr.

Conn., Hartford—Until Jan. 10, by Bd. Water Comrs., Municipal Bldg., furnishing approximately 21,000 cu.yd. filter sand and placing 12,000 cu.yd. filter sand in filter beds. C. M. Saville, Pilgard Bldg., 1026 Main St., ch. engr.; advertised in this issue.

N. Y., New York—Until Dec. 6, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Room 2351, Municipal Bldg., furnishing, delivering and installing additional discharge lines at 179th St. Pumping Sta. Noted Oct. 7.

O., Euclid—Until Dec. 13, by village, laying vitr. and c.i. water mains and building storm and sanitary sewers in Oakhill Dr. from Glenbrook Blvd. to westerly end, Hawthorne Dr. from Beverley Hills subdivision to easterly line, Yosemite Dr. from Beverley Hills Dr. to northerly line, Idlehurst Dr. from Chatworth to Argyle Drs., Argyle Dr. from Beverley Hills Dr. to center line, Beverley Hills Dr. from Euclid Ave. to Argyle Dr., cost $60,000; Chatworth Dr. from Glennbrook Blvd. to Beverley Hills allotment, Glennbrook Blvd. from Beverley Hills allotment to easterly line, Mallard Ave. from Upson to Hardwick Rds. and Shoreview Ave. from Upson to Harwick Rds. F. A. Pease Eng. Co., 804 Marshall Bldg., engrs.

Wis., Milwaukee—Until Dec. 7, by Comr. Pub. Wks., furnishing 2 circular sluice gates for Linwood Ave. water tunnel. Cost $4,000 each. Noted Oct. 14.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Ind., South Bend—Bd. Water Comrs. received bids. Nov. 17, furnishing labor and material and installating c.i. suction and discharge mains etc., for new Central Pumping Sta., from Paschen Bros., 11 West Washington St., Chicago, $140,420; J. V. McGovern, Chicago, $155,174; Natl. Heating Co. 119 East Monroe St., South Bend, $174,196. Noted Oct. 21.

★**Mich., Oxford**—City let contract improving waterworks system, to Gangl Constr. Co., 737 2d Natl. Bldg., Akron, O. About $29,000. Noted Oct. 21.

★**Mich., River Rouge**—Village let contract furnishing labor and material for building watermain extensions, involving 13,610 ft. 6-12 in. c.i. pipe, 20 fire hydrants, valves, connections, etc., to L. C. Clancy, c/o G. Jerome, 1331 Majestic Bldg., Detroit. About $60,000; cost plus percentage basis. Noted Oct. 21.

Kan., Liberal—City let contract building 2 centrifugal pumps, to Amer. Well Wks., 319 Reliance Bldg., Kansas City, Mo., $20,300.

Sewers

PROPOSED WORK

Pa., Susquehanna — See "Streets and Roads."

N. C., Raleigh—City plans to issue $100,000 bonds to build 6¾ mi. sewers. J. B. Bray, comr. pub. wks.

N. C., Wilson—Town plans to issue $32,500 bonds to extend sewerage system. T. A. Hinnant, clk.

Tenn., Manchester—Town will sell $45,000 bonds Dec. 20, to improve waterworks.

Tenn., Nashville—City plans to build sewers in various streets. About $200,000. W. W. Southgate, city engr.

O., Cincinnati—City plans to build sewers in 71st St. and Willard Ave. About $40,000. F. Krug, City Hall, engr.

O., Dayton—Montgomery Co. plans to build storm and sanitary sewers in various streets and alleys in Fairview Sewer Dist. 1, involving 20,000 ft. 6-24 in. vitr. pipe, and 3,000 cu. yd. earth trenching. About $85,000. K. B. Allen, U. B. Bldg., engr.

Mich., Detroit—City had plans prepared for Lateral Sewer 3,264 between Fairview, Engel, Marsh and Edlie Sts., 3,389 between Linwood, LaSalle and Tuxedo Sts., 3,390 between Mitchell, McDougal, Carpenter and Davison Sts., 3,395 between Jos. Campau, Mackay and Davison Sts. and Six Mile Rd., 3,396 between Lawton, Linwood, Beuna Vista and Tyler Aves., involving 15,677 ft. 12-33 in. brick and vitr. crock, etc. C. W. Hubbell, city engr.

Mich., River Rouge—Village having plans prepared by G. Jerome, engr., 1329 Majestic Bldg., Detroit, for sump for sewerage system, involving 1,450 cu.yd. excav., 280 cu.yd. rein.-con. and 10½ ton reinforcing steel. About $15,000.

Minn., Annandale—G. G. Shierts, city clk., receives bids about Jan. 15, building sewerage and waterworks systems. About $40,000. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs.

Minn., West St. Paul (St. Paul P.O.) City having plans prepared by J. E. Carroll, engr., 1682 Lincoln Ave., St. Paul, and O. Claussen, engr., 469 Laurel Ave., St. Paul, and will probably receive bids in February for 5 mi. sanitary sewerage system. Works involves 9-12 in. pipe. About $80,000.

Tex., Beaumont—City plans election to vote on $200,000 bonds to build sewers. G. J. Roark, city mgr.

Okla., Bartlesville—City plans to build sanitary sewerage system and sewage disposal plant, in western section of city, involving 68,000 ft. vitr. clay pipe. About $200,000. E. D. Kirkpatrick, Bartlesville, engr.

Ont., Eastview—Town plans to build sanitary sewerage system, involving 5,000 ft. 6-15 in. vitr. tile pipe. About $20,000. Patterson & Byrne, 71½ Sparks St., Ottawa, engrs.

Ont., Ottawa—City plans to build relief sewer from point at or near Pinard St., thence across Rideau River to junction with main sewer at or near Dufferin Rd. About $20,000. A. F. Macallum, city engr.

BIDS DESIRED

N. Y., Long Island City—Until Dec. 7, by M. E. Connolly, pres Queens Boro., Queens Subway Bldg., Hunterspoint Ave., constructing sewer and appurtenances in South St. from Long Island R.R. to Rockaway Turnpike and in Rockaway Turnpike from South St. to Lincoln Ave.; receiving basin and appurtenances on northerly corner of Elmhurst Ave. and Hampton St.

N. Y., S. I. St. George—Until Dec. 6, by C. D. Van Name, pres. Richmond Boro., building temporary sanitary outlet sewer in Cromwell Ave. from point 130 ft. north of mean high water line to point 80 ft. north of pier head line.

O., Lima—Until Jan. 5, by E. McClain, dir. Pub. Serv., building relief trunk sewers, Contrs. 3 and 4, also lateral relief sewers, Contrs. 5 6 and 7. B. F. Darling, superv. engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Conn., Bridgeport**—City let contract furnishing and installing machinery and equipment in sewage disposal plant on Harborview Ave., Black Rock Sta., to Sanitation Co., 50 Church St., New York City, $19,500.

★**N. J., Paterson**—Passaic Valley Sewerage Comn., 128 Market St., Newark, let contract for earth excav. and refilling in trench for 16 in. c.i pipe, for portion of Sect. 21 North Prospect St. Branch Sewer, to Arnolt-More Co., 45 Clinton St., Newark, $12,464. Noted Nov. 25.

Mich., Detroit—City received bids furnishing labor and material building Michigan Ave. sewer from Lonyo Rd. to Westfield Ave., from J. A. Mercier, 206 Hammond Bldg., $62,911; W. Blanck & Co., 827 Ford Bldg., $63,118; Detroit Drainage Constr. Co., Penobscot Bldg., $68,767. Noted Nov. 25.

★**Mich., Detroit**—City let contract to Western Constr. Co., 1208 Ford Bldg., furnishing labor and material for building Lateral Sewers 3,300 and 3,314, $35,361 and $29,990 respectively; to Lennane & McIlvenna, 1206 Book Bldg., 3,377, 3,385 and 3,386, $11,000, $5,750 and $3,750 respectively. Noted Nov. 25.

★**Mich., Detroit**—City let contract building 3rd Ave. Sewer, Sects. 4 and 5, to J. A. Mercier, 206 Hammond Bldg., $231,975 and $127,572 respectively. Noted Nov. 25.

★**Wis., Beaver Dam**—City let contract excavating and laying sanitary and storm sewers in Chatham and Main Sts., involving 2,100 ft. 6-12 in. vitr. pipe, to Brogan & Burns, East Main St., Green Bay. About $22,000.

★**Okla., Miami**—City let contract building outfall sewer and sewerage disposal plant, involving 1,200 ft. 4-24 in. vitr. pipe, 4,750 cu.yd. earth and 650 cu.yd. rock trenching, etc., to J. S. Shoe, City Hall. About $141,000. Noted Oct. 21.

★**Wash., Seattle**—City let contract building sewers and grading Juneau St. et al., involving 13,000 cu.yd. earthwork, 1,450 lin. ft. 8 in. clay pipe, seventy-three 6 in. wyes, to Hansen & Hauge, Green Bldg., $32,334.

★**Ont., Port Dalhousie**—Town let contracts building complete sewerage system as follows: 8,000 ft. 8-15 in. vitr. tile pipe, to Clay Products Agency, 8 Colbourne St., Toronto; laying same, to R. M. Smith, 58 Howard St., Toronto; manhole covers, to Drummond McCall, 373 Front St. E., Toronto. Total cost, $45,000. Noted April 15.

Bridges

PROPOSED WORK

O., Youngstown—City receives bids early in spring, building 350 to 400 ft. rein.-con. and steel bridge, 60 ft. wide, on Belmont Ave. About $450,000. G. F. Turner, City Hall, engr.

Minn., Hammond—Wabasha Co. (Wabasha) had plans prepared by C. M. Matthies, engr., Wabasha, for Bridge 3471 over Zumbro River, to have two 120 ft. steel spans, two 30 ft. approaches, 18 ft. roadway. About $35,000.

Minn., Theilman—G. J. Ginther, aud. Wabasha Co., (Wabasha) receives bids in February, to have one 100 ft. steel span, 18 ft. roadway, concrete foundation and flooring. About $25,000. C. M. Matthies, Wabasha, engr.

Wis., Prescott—Prescott Bridge Co. plans to build 450 ft. concrete and steel toll bridge, 18 ft. wide, over St. Croix River, to have rolling lift span. About $125,000. H. Fiedler, pres. Engineer not selected.

Wis., Sauk City—Sauk Co. plans to build 1,000 ft. bridge, 20 ft. wide, over Wisconsin River, to have steel superstructure and concrete substructure. About $210,000. Engineer not selected.

Tex., Corpus Christi—Nueces Co. soon receives bids building 1.65 mi. concrete and timber causeway, 18 and 20 ft. wide, over Nueces Bay. Work involves 34,760 lin.ft. wooden piling, 12,590 lin.ft. concrete piling, 1,472 sq.yd. bituminous macadam, 4,367 sq. yd. asphaltic concrete, 836,958 ft. untreated lumber, 35,150 ft. 12 lb. and 1,248 ft. 24 lb. treated lumber, 339,230 lb. reinforcing steel, 3,423.2 cu.yd. Class "A" and 154.3 cu.yd. Class "B" concrete, etc. About $405,552; including 10% for engineering and contingencies. O. N. Powell, co. engr. Noted Nov. 18.

BIDS DESIRED

N. H., Portsmouth—Until Dec. 14, by Piscataqua River Bridge Comn. City Hall, building superstructure for bridge over Piscataqua River between here and Kittery, Me. Former bids rejected. Private plans. Noted Sept. 23.

N. J., Elizabeth—Until Dec. 22, by Bd. Freeholders Union Co., Court House, building new lift Strauss Trunnion bascule type bridge, over Elizabeth River, South Front St. J. L. Bauer, co. engr.; advertised in this issue. Noted March 4.

Pa., Phila.—Until Dec. 17, by Joint Interstate Delaware River Bridge Comn., Room 1140, Widener Bldg., making test borings at proposed sites of bridge to be constructed over Delaware River between here and Camden. R. Modjeski, chn. Bd. Engrs.; advertised in this issue. Noted Sept. 30, under "Camden."

Ga., Morgan—Until Dec. 21, by Bd. Comrs. Rds. & Revenues, Calhoun Co., Court House, furnishing labor and material building 5 rein.-con. bridges and 1 rein.-con. slab top culvert, on Federal Aid Project 171, State Aid Project S-2-8, Morgan-Edison Rd., Route 37, involving 473.52 cu.yd. Class "A", 147.9 cu.yd. Class "B" and 28.68 cu.yd. Class "C" concrete, 73,094 lb. reinforcing steel, 760 sq.yd. rock asphalt, etc. R. H. Bostwick, chn.

Fla., Miami—Until Jan. 6, (change of date) by city, building double leaf steel bascule span bridge over Miami River on Avenue G. C. W. Murray, city engr Harrington, Howard & Ash, Jacksonville, consult. engrs; advertised in this issue.

O., Dayton—Until Dec. 18, by Comrs. Montgomery Co. building steel superstructure for Bridge No. 10½ over Miami River, Harrison Twp. About $150,000. P. S. Bookwalter, co. surv.

Mich., Detroit—Until Dec. 23, by Dept. Pub. Wks., removing present iron truss bridge and fabricating and erecting steel part of superstructure of proposed bridge over Michigan Central R.R. tracks, on Howard St. J. A. Martin, comr.; advertised in this issue. Noted Nov. 25.

Minn., Grand Rapids—Until Dec. 7, by T. Erskine, aud. Itasca Co. building 6 concrete bridges on State Rd. 9. Bridges 3359,

Bridges (Continued)

3362 and 3363, 20 x 20 ft. slabs, Bridge 3358, 30 x 20 ft. through girder, Bridge 3361, 40 x 20 ft. deck girder. About $30,000. H. A. LeSueur, Grand Rapids, engr.

Wis., Racine—Until Dec. 18, by Bd. Pub. Wks., building 343 ft. steel bridge, with concrete abutments, on State St. About $350,000. Strauss Bascule Bridge Co., 194 South Michigan Ave., Chicago, engr. Noted Nov. 11.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., Portsmouth**—Piscataqua River Comn., City Hall, let contract building substructure for bridge over Piscataqua River between here and Kittery, Me., to Holbrook, Cabot & Rollins Corp., 6 Beacon St., Boston. About $830,000. Noted Sept. 23.

★**Ga., Chatsworth**—Murray Co. let contract building bridge over Rock Creek, about 6 mi. from here, also constructing 10,000 yd. approach work, to Luten Bridge Co., 59 Stokes Ave., Atlanta. About $25,000.

North Carolina—State Highway Comn., Raleigh, received bids building (1) bridge on Federal Aid Project 93, Franklin Co., involving 1,147 cu.yd. Class A concrete, 130,990 lb. reinforcing steel, 1,780 lb. expansion plates and bolts, etc., (2) bridge on Federal Aid Project 48-B, Northampton Co., 250 cu.yd. Class A concrete, 28,710 lb. reinforcing steel, 810 lb. plates and bolts, etc., from Stern Bros., Statesville, (1) $63,486, (2) $14,297; Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., (1) $68,362, (2) $14,897; Porter & Boyd Realty Bldg., Charlotte, (1) $69,046, (2) $12,715. Noted Oct. 28.

★**Michigan**—State Highway Dept., Lansing, let contract building Bridges 611, 102, 611, 103 and 610, 201, on Federal Aid Rd. 43, Muskegon Co., each 35 ft. long with 20 ft. roadway, to Hilding & Rabe Co., Grand Rapids, $19,489. Noted Nov. 4.

Ia., Manchester—Delaware Co. received bids Nov. 18, building rein.-con. arch bridge, to have two 87 ft. spans, 26 ft. roadway and two 5 ft. sidewalks, involving 1,402 cu.yd. rein.-con. and 50.7 ton steel, from Miller-Fifield Constr. Co., L. & J. Bank Bldg., Waterloo, $43,988; Widell Co., 1st Natl. Bank Bldg., Mankato, Minn., $44,890; F. E. Marsh & Co., Jefferson, $45,500. Noted Oct. 28.

Tex., F. Worth—Tarrant Co. receives bids Nov. 18, building bridge, to have 2 steel spans and abutments on concrete piers, on Lake Worth Rd., from C. T. Hodge, Ft. Worth, cost plus 15 per cent; Austin Bros., 1815 Coombs St., Dallas; Illinois Steel Bridge Co., Laclede Gas Bldg., St. Louis, Mo. Engineers estimates, $60,000. Noted Nov. 11.

Streets and Roads

PROPOSED WORK

Vermont—State Highway Dept., Montpelier, plans to improve state road through town of Guilford to state line of Massachusetts. Cost between $60,000 and $65,000.

Massachusetts—State Dept. Pub. Wks. Div. Highways, Boston, soon lets contract paving 7,500 ft. state highway, Westfield, bituminous macadam.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received Nov. 3, regulating and repaving Chambers and Canal Sts. Noted Nov. 11.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received Nov. 4, regulating and repaving West 54th St. from 7th to 9th Aves. Noted Nov. 11.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received Nov. 18, regulating and repaving West End Ave. and 33d St. Noted Nov. 11.

N. J., Freehold—Monmouth Co. election Dec. 21, to vote on $440,000 bonds to pave 4 mi. Ocean Ave. from Long Branch to Deal. G. D. Cooper, Broad St., Red Bank, engr.

Pennsylvania — State Highway Dept., Harrisburg, rejected bids received Oct. 13, improving Route 142, Downington Boro., Chester Co. Noted Oct. 21.

Pa., Susquehanna—City election Jan. 12, to vote on $80,000 bonds to pave and build sewers in various streets. A. I. Baybss, secy.

North Carolina—State Highway Comn., Raleigh, had plans prepared and soon receives bids paving 1⅞ mi. road fom bridge over Richardsons Creek via Monroe to Bentons Heights (omitting section through Monroe), 16 ft. wide, 2 in. Topeka surface on 5 in. plain cement base and header course, Federal Aid Project 39, Union Co. About $50,000. W. S. Fallis, state highway engr.

North Carolina—State Highway Comn., Raleigh, plans to improve road from a point 2 mi. west of Carthage to Moore-Lee Co. line, Federal Aid Project 98 B, 26 ft. wide, Moore Co., involving 17 acres clearing and grubbing, 35,630 cu.yd. common excav., 23,100 cu.yd. topsoiling, 915 ft. 15-30 in. terra cotta pipe, 50 cu.yd. Class B headwalls, etc., cost $52,600; 4½ mi. road beginning at Moore Co. line and running north east, Federal Aid Project 98 C, 26 ft. wide, Lee Co., 13 acres clearing and grubbing, 19,070 cu.yd. common excav., 12,000 cd.yd. top soiling, 640 ft. 15-24 in. terra cotta pipe, 35 cu.yd. Class B concrete headwalls, etc., $27,000; 5.8 mi. road between Durham and Wake Co. line, Federal Aid Project 122, 16 ft. wide, Durham Co., 8 acres clearing and grubbing, 13,200 cu.yd. common excav., 312 ft. 15-24 in. terra cotta pipe, 56 cu.yd. Class B concrete headwalls, 54,510 sq.yd. combination cement concrete header and base course 51,100 sq. yd. bituminous surface, etc., $150,000. W. S. Fallis, state highway engr.

N. C., Fayetteville—City plans to issue $80,000 bonds to pave various streets.

N. C., Marion—McDowell Co. plans to issue $150,000 bonds to improve, drain, and build various roads and bridges. H. F. Little, chn. highway comn.

N. C., Wentworth—Rockingham Co. plans to issue $200,000 bonds to build and improve various roads. H. K. Penn, clk.

South Carolina—State Highway Comn., Columbia, plans to build 10.16 mi. sand clay road from Fairfax to Bamberg Co. line, Federal Aid Project 41, Allendale Co. C. H. Moorefield, state highway engr.

S. C., Columbia—City voted $300,000 bonds to improve various streets.

Tenn., Columbia—Maury Co. voted $300,000 bonds to complete Jackson Military Highway from here to Lawrence Co. line and to build other state and federal aid highways.

O., Cincinnati—Bd. Park Comrs. soon let contract resurfacing 30,000 sq.ft. Bloody Run Parkway, north of Gilbert Ave., 40 ft. wide, bitulithic. C. H. Meeds, care of Bd. Park Comrs., engr.

O., Cleveland—City plans to drain, grade, curb and pave with brick on concrete base Ottawa Rd. between East 71st St. and Harvard Ave., cost $36,020; Lamontier Ave. between Woodhill Rd and East Blvd., $76,108. R. Hoffman, 618 City Hall, engr.

O., Cleveland—City receives bids in spring, grading, draining, curbing and paving with brick on concrete base Thames Ave. between East 152d and East 140th Sts., cost $67,600; Indiana Ave. between Ottowa Rd. and East 71st St., $23,172; Mt. Auburn Ave. between Woodhill Rd. and East Blvd., $82,597. R. Hoffman, 618 City Hall, engr.

O., Columbus—City plans to pave and widen 5,750 ft. 3rd St. from Livingston Ave. to Naghten St., 45 ft. wide, asphalt.

Wis., Appleton—Outagamie Co. appropriated following sums for road construction: $30,000 to meet state and federal aid on Project 232, Trunk Highway 18; $16,333, Project 231, Trunk Highway 54; $12,000, filling gap on Shicton-Shawano Rd.; $45,000, Appleton-Seymour Rd., commencing at south end of present concrete, 7 mi. south of Seymour and thence southerly and westerly; $19,000, additional work on Bear Creek-New London Rd.; $45,000, Greenville-Shicton Rd., commencing at concrete and continuing north through Greenville and Greenville Sta.; $22,500, Little Chute Hill on Appleton-Kaukauna Rd., Trunk Highway 15. A. G. Brusewitz, comr.

Wis., Fond du Lac—Bd. Supervs. Fond du Lac Co. plans to build following roads during 1921: Highway 15, cost $258,008, Highway 23 from west of Ripon to county line, $68,683, Eden-Campbellsport Rd., $88,683, Fond du Lac-Milwaukee Rd., in Byron, $100,000, Taycheedah from end of present pavement to Peebles, $81,000, bridges in Waucousta, etc., $13,500.

Wis., Madison—Dane Co. voted $179,000 bonds to gravel State Trunk Highways. F. M. Lipke, comr.

Wis., Oshkosh—Winnebago Co. appropriated $15,280 to build concrete highway at south end of Jackson St. Rd. north of here; $15,000 to maintain State Trunk Highway System; $21,130, to build Winneconne-Borth Rd. beginning where 1920 improvement leaves off and extending to macadam road. J. Binning, comr.

Wis., Racine—Racine Co. voted bonds to grade, pave and build culverts in following towns: $90,000, in Rochester and Waterford; $157,000, Raymond; $112,000, Mt. Pleasant; $35,000, Burlington; $1[illegible], 12th St. Rd. at Rochester and extending easterly. W. O. Thoma, comr.

Wis., Superior—Douglas Co. plans to surface 3 mi. Trunk Highway 10, 4 mi. Trunk Highway 11, cost, $30,000, and 3½ mi. Union St., $110,000, all concrete; gravel surface 17 mi. Trunk Highway 10, $70,000, 1 mi. Trunk Highway 11, $3,000, 9 mi. Trunk Highway 11, $90,000, 2¼ mi. Trunk Highway 11, $15,000, 7 mi. Lakeside Rd., $70,000, 2 mi. Lakeside Rd., $4,000, 2 mi. Brule-Highland Rd., $12,000, 9 mi. Brule-Highland Rd., $26,000, 3½ mi. Spaulding Ave., $23,000, 1 mi. Rossiter Ave., $5,000, 2 mi. Nebagamon-Black River Rd., $8,000, 2 mi. Nebagamon-Black River Rd., $11,500, 2 mi. Winneboujou cutoff, $30,000, 1 mi. Winneboujou cutoff, $20,000 and 11 mi. Borea Rd., $44,000; grading 5½ mi. Trunk Highway 35, $32,000, 16½ mi. Moose Rd., $25,000 and 13½ mi. Nebagamon-Black River Rd., $50,000. C. D. Conkey, Jr., comr.

Wis., Waukesha — Waukesha Co. appropriated following sums for road construction: $386,458 improving Highway 19 Pewaukee west, concrete; $134,600 Janesville-Plank Rd., New Berlin and Muskego, 18 ft. wide, concrete; $90,000 Highway 92, northeast from here, 16 ft., concrete; $50,000 Highway 61, Mukwonago Rd., 16 ft. concrete; $100,000 Highway 59, Waukesha-Genesee Rd., 18 ft., concrete; $11,000 additional work on Project 179; $25,000 Jericho-North Prairie Rd., from Highway 99 northwest, 18 ft., gravel and culverts; $5,000 North Lake south, 18 ft., gravel; $20,000 Dousman-Palmyra Rd. southwest from Highway 67, Ottawa Twp., 18 ft., gravel; $20,000, Oconomowoc-Merton Rd. from Bond Issue Rd. 19, 16 ft., gravel; $16,000 road Summit Twp., 16 ft., gravel; $17,000 Highway 19, 18 ft., concrete. C. J. Hahn, Court House, comr.

Wis., Waupun—City having plans prepared paving, curbing and guttering Main St., 20 ft. wide, involving 45,000 sq.yd. concrete paving and 9 mi. combined concrete curb and gutter. About $200,000. Parsons & Orbert, M. & M. Bank Bldg., Milwaukee, engrs.

Ia., Sibley—City plans to pave, curb and gutter various streets, asphaltic concrete, vitr. brick and sheet asphalt on concrete base. Cost to exceed $30,000. W. L. Fayey, Spencer, engr.

South Dakota—State Highway Comn., Pierre, plans to grade, drain and gravel, also build bridges on 11.8 mi.; Custa-Hermasa-Rapid City Rd., 36 ft. wide, Federal Aid Project 70; Custer Co., involving 120,800 cu.yd. excav., 2,500 cu.yd. graveling, 1,856 ft. of corrugated iron or concrete pipe culverts, 1,187 cu.yd. concrete, 72,000 lb. reinforcing and 61,000 lb. structural steel, etc. About $169,000. F. W. Schreiber, state highway engr.

Missouri—State Highway Dept., Jefferson City plans to build 3.57 mi. state road north of Kingston, 24 ft. wide, State Aid Project S 20.22, Caldwell Co., cost $22,176; 2.85 mi. state road north of Bowling Green, 24 ft. wide, State Aid Project S 20.21, Pike Co., $35,000; 1.04 mi. East and West State Rd. east of Grant City, 24 ft. wide, State Aid Project S 20.20, Worth Co., $34,700; 1.7 mi. East and West State Rd., west of Warrensburg, 24 ft. wide, State Aid Project S 20.19, Johnson Co., $22,900; 3.19 mi. state road, north of Warsaw, 24 ft. wide, State Aid Project S 20.16, Benton Co.

Mo., St. Louis—City plans to pave and grade 1,720 ft. Natural Bridge Rd. from Clara to Goodfellow Aves., involving 11,500 sq.yd. vitr. brick. About $83,200. W. W. Horner, City Hall, engr.

Tex., Beaumont—City plans election to vote on $350,000 bonds to pave streets. G. J. Roark, city mgr.

Tex., Cameron—Milam Co. having plans prepared grading, surfacing and draining 18.86 mi. Highway 36 through Rd. Dists. 2 and 29, involving 34 acres clearing and grubbing, 40,000 cu.yd. borrow excav., 600 cu.yd. 1:2:4 concrete, 44,000 cu.yd. gravel surfacing, 28,000 lb. reinforcing steel and 10,000 cu.yd. stripping gravel pits. About $124,564. A. F. Mitchell, co. engr.

Tex., Cleburne—Johnson Co. having plans prepared grading, surfacing and building rein.-con and steel bridges on 12 mi. Highway 2-A from Alvarado to Hill Co., involving 3 acres clearing and grubbing, 6,400 cu.yd. earth, 400 cu.yd. solid and 400 cu.yd. loose rock excav., 112,544 sq.yd. bituminous macadam, 67,000 cu.yd. embankment, 37,560 cu.yd. gravel, 146,400 lb. reinforcing and 115,800 lb. structural steel, 1,420 cu.yd.

Streets and Roads (Continued)

Class "A," 300 cu.yd. 1:2:3 and 400 cu.yd. 1:2½:5 concrete. About $333,954. Whiteaker & Washington, co. engrs.

Tex., Ft. Davis—Jeff Davis Co. having plans prepared grading, surfacing and draining 7.216 mi. Highway 1, from point 1 mi. east of Culberson Co. to Reeves Co., involving 15 acres clearing and grubbing, 1,477 cu.yd. borrow and 22,044 cu.yd. earth excav., 2,774 cu.yd. gravel surfacing, 6,450 lb. reinforcing steel, 356.8 cu.yd. 1:2:3 and 32.5 cu.yd. Class "B" concrete. About $25,000. A. L. White, Van Horn, engr.

Tex., Groveton—Trinity Co. having plans prepared grading, surfacing and building rein.-con., steel and timber bridges and culverts on 17.8 mi. Highway 19 from Trinity River to Houston Co., involving 13 acres clearing and grubbing, 16 mi. road grader work, 38,00 cu.yd. borrow, 14,700 ft. lumber, 37,171 cu.yd. gravel surfacing, 75,000 lb. structural steel, 389 cu.yd. Class "A" and 171 cu.yd. 1:2:3 concrete. About $200,915. W. J. Kelly, Huntsville, co. engr.

Tex., Mt. Pleasant—Titus Co. having plans prepared scarifying, surfacing and building concrete, steel and timber bridges and culverts on 20.17 mi. Highway 35, from point 3.6 mi. southeast from here to Tabor, involving 13.51 mi. scarifying, 20.17 mi. shoulders and cleaning ditches, 30,151 cu.yd. gravel surfacing, 223,000 ft. lumber, 8,844 lb. reinforcing and 75,100 lb. structural steel, etc. About $209,222. Wilder & O'Neal, co. engrs.

Tex., Tahoka—Lynn Co. voted $60,000 bonds to build good roads. C. H. Cain, co. judge.

Tex., Tyler—Smith Co. had plans prepared grading, surfacing and building rein.-con. bridges and culverts on 2.66 mi. Highway 37 north from Lindale, involving 5,666 cu.yd. graveling clay, 24,014 lb. reinforcing and 24,300 lb. structural steel, 4,146 cu.yd. borrow and 21,871 cu.yd. earth excav. About $43,927. Material will be furnished by county. D. F. Caldwell, Tyler, engr.

Colorado—State Highway Dept., Denver, plans to pave 1.3 mi. road between Boulder Creek and Denver, concrete, cost $57,000; surface 1.18 mi. Colorado Springs-Canon City Rd. and ¾ mi. Buena Vista Rd., sand, $64,000. Federal Government has been asked to appropriate toward cost.

Wash., Seattle—City plans to grade and build cement walks on Wilson Ave., involving 15,400 linft. concrete curbing, 145,000 cu. yd. earth excav., etc. About $101,245. A. H. Dimock, city engr. Noted April 1.

California—State Highway Comn., 515 Forum Bldg., Sacramento, rejected bid received Oct. 25, improving 81 mi. road between Huron Rd and easterly boundary of Fresno Co. Noted Nov. 11.

Que., Quebec—City receives bids about Jan. 5, for paving work. About $500,000.

Ont., Pembroke—City plans to sell $47,000 bonds to improve roads.

Ont., Wallaceburg—City having estimates made for paving James and Dufferin Sts., concrete. About $25,000. A. McNiece, Wallaceburg, engr.

BIDS DESIRED

N. Y., Bronxville (Yonkers P. O.)—Until Dec. 13, by Bronx Parkway Comn., 72 West Pondfield Rd., paving Bronx River Parkway Drive, between Duncomb St., Williamsbridge, New York City, and Mt. Vernon Ave., Yonkers. J. Downer, engr. and secy.; advertised in this issue.

Pa., Union City—Until Dec. 7, by Supervs. Union Twp., building portion of Concord Rd., from here to O'Neil Rd., involving 11,924 ft. rein.-con. J. W. O'Rourke, secy.

Maryland—Until Dec. 7, by State Rds. Comn., Garrett Bldg., Baltimore, resurfacing 2.42 mi. state highway from Harmony Grove to Frederick via cut off and Opossumtown Pike, macadam, Frederick Co., Contr. F-41. J. N. Mackall, chn.; advertised in this issue.

W. Va., Princeton—Until Dec. 15, by L. G. Bowling, clk., Mercer Co. grading 3 mi. road from Bluestone River, near Kegley, to Spanishburg, 26 ft. wide, Federal Aid Project 44. About $60,000.

Ga., Vienna—Until Dec. 7, by Bd. Comrs. Rds. and Revenues, Dooly Co., building 8.81 mi. sand clay road, Federal Aid Project 18. Work involves 11.76 acres clearing and grubbing, 45,146 cu.yd. common excav. and borrow, 897.5 lin.ft. 15-24 in. vitr. clay pipe, 337 lin.ft. 30 in. c.i. pipe, 4,900 lb. reinforcing steel, 63.9 cu.yd. Class "A" and 70.2 cu.yd. Class "B" concrete, and 12,682 cu.yd. top soil surfacing. C. S. Gurr, clk.

Indiana—By Bd. Comrs. building roads in following counties:

Dec. 6, Owen Co., Spencer, 8,885 ft. Geo. Knapp et al Rd., Marion Twp., gravel. J. R. Greene, aud.

Dec. 7, Pulaski Co., Winamac, 10,775 ft. Oscar Pulaski Rd., Cass Twp., gravel; 3 mi. W. Vollmer Rd., White Post Twp., gravel. J. C. Howe, aud.

Wisconsin—Until Dec. 6, by State Highway Comp. Madison grading and paving 2.1 mi. Portage-Wyocena-Rio Rd., Federal Aid Project 51, Columbia Co., involving 85.14 cu.yd. Class "A" concrete in culverts, 1,992 sq.yd. 24 ft. featheredge gravel, 9,568 cu.yd. earth and 46,933 cu.yd. borrow excav., also 70 ft. span bridge, which involves 140.5 cu.yd. Class "A" and 26 cu.yd. Class "B" concrete, 47,090 lb. structural steel, etc. Noted Nov. 11.

Wisconsin—Until Dec. 6, by State Highway Comn., at div. office 2, 208 Stephenson Bldg., Milwaukee, grading and paving 4.65 mi. Town Line Rd., Federal Aid Project 115, involving 49,150 sq.yd. 18 ft. concrete, 16,385 bbl. cement, etc.

Wisconsin—Until Dec. 7, by State Highway Comn., at div. office 8, 1st Natl. Bank Bldg., Superior, grading and paving 13 mi. Barron-St. Croix Rd., Federal Aid Project 22, Polk Co., involving 26,000 cu.yd. gravel surfacing.

Ia., Des Moines—Until Dec. 15, by Comrs. Polk Co., paving 9 mi. county highway, involving 22,596 cu.yd. earth excav. and 103,264 sq.yd. paving. F. O. Laing, Des Moines, engr.

Ia., Marshalltown—Until Dec. 8, by M. E. McLelland, aud. Marshall Co., paving 6 mi. Lincoln Highway, 1½ mi. east and west, north and south on 3rd Ave. N. and south on Center St. S., 18 ft. wide, crushed rock, cement and sand. H. O. Hickok, co. engr. Noted Nov. 25.

Kan., Junction City—Until Dec. 11 by Geary Co. paving 0.61 mi. East 6th St. Benefit Dist., 18 ft. wide, involving 6,933 sq. yd. single course concrete, 2,391 cu.yd. earth excav. and 148.7 cu.yd. Class A concrete in culverts, cost, $33,852; 0.4 mi. Humboldt Dry Creek Benefit Dist. Rd., Sect. A, 18 ft. wide, involving 4,225 sq.yd. single course concrete and 3,200 cu.yd. earth excav., $20,184; resurfacing 3,800 lin. ft. Golden Belt Rd. south of here, 16 ft. wide, involving 6,722 sq. yd. vertical fibre on ¾ in. sand cushion, 2,500 cu.yd. earth excav., etc., $34,714. G. A. Russell, Junction City, engr.

Tex., Canadian—Until Dec. 13, by W. D. Fisher, judge Hemphill Co., clearing, grubbing, grading, surfacing and draining 14.4 mi. Highway 4 from here northwest to Lipscomb Co. line, involving 420 cu.yd. concrete, 36,135 lb. reinforcing steel, 8,700 cu.yd. earth and 1,850 cu.yd. rock excav. About $82,747. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs. Noted July 22.

Tex., Childress—Until Dec. 13, by M. J. Hathaway, judge Childress Co., grading, clearing, grubbing, surfacing and draining 10.11 mi. State Highway 4, involving 526 cu.yd. Class "A" concrete, 34,688 lb. reinforcing steel, 7,469 cu.yd. borrow, 50,024 cu.yd. unclassified earth and 384 cu.yd. solid rock excav., etc. About $52,887. Hess & Skinner, Southwesten Life Bldg., Dallas, engrs. Noted Nov. 18.

Tex., El Paso—Until Dec. 13, by E. B. McClintock, judge El Paso Co., building gravel base on 12.61 mi. State Highway 1, Fabens Rd. involving 27,791 cu.yd. surfacing hauled first ¼ mi. and 151,616 cu.yd. surfacing hauled additional ¼ mi. About $64,340. L. A. White, co. engr.

Tex., San Antonio—Until Dec. 9, by city, paving 30 blocks, concrete base with asphalt surface. About $100,000. H. Helland, engr.

Tex., Wichita Falls—Until Dec. 6, by City Clerk, improving 8th St. fom Fluff to Brooks Sts., 9th St. from Denver to Taylor Sts., Grant St. from Ave. D to Center of intersection with Ave. H, Ave. A from 10th to 11th Sts., involving 35,056 sq.yd. pavement, 37,052 cu.yd. excav., 17,983 lin.ft. curb, etc. Noted Oct. 28.

New Mexico—Until Dec. 21, by State Highway Comn., Capitol Bldg., Santa Fe, constructing 17.98 mi. road near Santa Rosa, Federal Aid Project 22 Guadalupe Co., involving 46,530 cu.yd. Class "1," 2,185 cu.yd. Class "2" and 7,743 cu.yd. Class "3" excav., 20,656 cu.yd. Class "1" borrow, 7,412 mi. crowning and shaping, 21,013 cu.yd. 1 course gravel surfacing, 69.9 cu.yd. cement rubble masonry, 59.65 cu.yd. Class "A" and 60.2 cu.yd. Class "B" concrete in box culverts and spillway, 183 cu.yd. Class "B" concrete in corrugated metal culvert headwalls, 328.22 cu.yd. Class "B" and 3.04 cu.yd. Class "A" concrete in abutments and caps, 762 lb. structural steel, etc.; 8.747 mi. road between Ft. Sumner and Ricardo, Federal Aid Project 23, De Baca Co., 4,738 cu.yd. Class "1" excav., 9,032 cu.yd. Class "1" borrow, 4.526 mi. crowning and shaping, 10,235 cu.yd. 1 course gravel surfacing, 36.68 cu.yd. cement rubble masonry, 28.53 cu.yd. Class "A" and 16.3 cu.yd. Class "B" concrete in spillway, 42.27 cu.yd. Class "B" concrete in headwalls, 25.64 cu.yd. Class "B" concrete in bridge, etc.; 13.825 mi. road between Silver City and Santa Rita, Federal Aid Project 28, Grant Co., 80,309 cu.yd. Class "1", 11,464 cu.yd. Class "2" and 10,844 cu.yd. Class "3" excav., 9,787 cu.yd. Class "1" borrow, 15,979 cu.yd. 1 course crushed stone surfacing, 33.68 cu.yd. cement rubble masonry, 42.62 cu.yd. Class "A" and 134.7 cu.yd. Class "B" concrete in spillway and box culverts, 108 cu.yd. Class "B" concrete in headwalls, 4.052 cu.yd. 1 course cement concrete pavement, 15.2 cu.yd. Class "A" and 611.07 cu.yd. Class "B" concrete in caps and abutments, 3,750 lb. structural steel, etc.; 15.981 mi. road between Willard and Mountainair, Federal Aid Project 43, Torrance Co., 21,571 cu.yd. Class 1 excav., 3,007 cu.yd. Class 1 borrow, 10.337 mi. crowning and shaping, 96.66 cu.yd. Class "B" concrete in headwalls, etc. L. A. Gillett, state highway engr.

Cal., Merced—Until Dec. 13, by P. J. Thurston, clk. Merced Co., grading and paving 3.28 mi. Rd. Dist. 2, concrete or asphalt. A. E. Connell, co. engr.

Ontario—Until March 1, by W. A. McLean, deputy minister of public highways, Toronto, for grading Provincial Highways in townships of Flamboro, E., Normanby, Egremont, Glenelg, Holland, Sullivan, Arthur, Mildmay, Brant, Greenock, Kinloss, Toronto, Nelson, Caledon, Mono, Mulmer, Amaranth, Artemesia, Sydenham, Derby, West Williams, Bosanquet, McKillop, Tuckersmith, Hullet, Goderich, Bayham, Mosa, Aldboro, Dunwich, Louth Innisfill, Barrie, Vespra, Oro, Orillia, North and South Rama, Pittsburg Leeds, Crosby S., Bastard, Kitley, Elmsley S. and N., Ramsey, Gloucester, Cumberland, Clarence, North Plantagenet, Alfred, Longueuil, Hawkesbury, West and East Huntley, Charlottenburg, Osnabruck, Cornwall, Williamsburg, Augusta, Elizabethtown, Yonge, Escott, Landsdowne, Leeds, Pittsburg, Fredericksburg, Cramahe, Haldimand, Darlington, East Whitby, Scarboro. Total cost about $15,000,000. G. Hogarth, Parliament Bldgs., Toronto, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Massachusetts**—State Highway Dept., Boston, let contract paving 18,555 ft. state highway from town line of Westfield to Connecticut state line at Granby bituminous macadam, to Lane Constr. Co., 37 Colony St., Meriden, $100,789. Noted Nov. 11.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., received bids Nov. 24, regulating and grading sidewalks and gutters in (a) Farrington St. from State St to Elbow Pl., (b) Ely Ave. from Bway. to Bridge St., (c) filling and restoring street on Beach Channel Drive along Jamaica Bay, from C. Kurth, 37 Brotto Ave., Elmhurst, L. I., (a) $1,560, (b) $1,882; Peace Bros., 460 Lockwood Ave., (a) $1,872, (b) $1,742; Kennedy & Smith, 94 Main St., Flushing, (a) $1,952, (c) $14,645; Welsh Bros., 14 Queens St., Astoria, (b) $1,527; F. E. Jones, 17 Battery Pl., New York City, (c) $14,950; Waberley ice Co., (c) $15,985.

N. Y., New York—Park Comrs. received bids Nov. 24, (a) repaving with asphaltic mastic, walks of Riverside Park, (b) regulating and recovering with new surface material Jasper Oval Playgrounds, from Sicilian Ahphalt Paving Co., 41 Park Row, (a) $13,500; Union Paving Co., Bway. and 112th St., (a) $14,780; T. DiRoma, 33 Evelyn Pl., (b) $4,960. Noted Nov. 18.

N. J., Jersey City—Bd. Freeholders Hudson Co. received bids improving Schuyler Ave., from Maher & McNichols, Kearny, $173,306; Tannarone Bros., Belleville, $181,299; Hudson Contg. Co., Jersey City, $182,546. Noted Sept. 23.

★**N. J., New Brunswick**—Middlesex Co. let contract paving various streets, involving 12,087 sq.yd. Warrenite bitulithic on 6 in. concrete foundation, to Standard Bitulithic Co., 50 Church St., New York City.

★**Pennsylvania**—State Highway Dept., Harrisburg, let contract building 25,001 ft. of roadway in Greenfield and Northeast Twps., Erie Co., to Warren Bros. Co., 142 Berkeley St., Boston, $254,083. Noted Nov. 11.

★**Pa., Phila.**—City let contracts paving 7th St. from Chew to Medro Sts., involving 4,864 sq.yd. asphalt and 507 sq.yd. vitr.

Streets and Roads (Continued)

Annsbury St., from 54th to 6th Sts., 2,800 sq.yd. asphalt and 275 sq.yd. vitr., Jasper St. from Buckius to Frankford Aves., 4,226 sq.yd. asphalt and 472 sq.yd. vitr., to Union Paving Co., 30th and Lest Sts., $21,678, $18,745, and $20,840 respectively. Noted Nov. 11.

Maryland—State Rd. Comn., 601 Garrett Bldg., Baltimore, received bid Nov. 16, grading and draining 3.04 mi. state highway from Little Gunpowder Falls toward Aberdeen, Hartford Co.—Contr. H-26, from T. Mullan, 3945 Greenmount Ave., Baltimore, $16,900. Noted Nov. 11.

North Carolina—State Highway Comn., Raleigh, received bids improving (1) 7.63 mi. road between Wilson-Wayne Co. line and Wiggins Mill, Federal Aid Project 127, 18 ft. wide, Wilson Co., involving (a) 5 acres clearing and grubbing, 22,700 cu. yd. common excav., 20,050 cu.yd. topsoiling, 314 ft. 15-30 in. terra cotta and metal pipe and 63 cu.yd. Class B concrete, (b) 220 cu.yd. Class A concrete, 27,500 lb. reinforcing steel, 470 lb. plates and bolts and 510 ft. untreated timber piles, etc.; (2) 6¾ mi. road between Wilson Twp. line and Wilson Nash Co. line, Federal Aid Project 117, 18 ft. wide, Wilson Co., (a) 5 acres clearing and grubbing 20,400 cu.yd. common excav., 304 ft. 15-24 in. terra cotta pipe, 16,500 cu.yd. topsoiling, 25,000 cu.yd. overhaul and 28 cu.yd. Class B concrete, (b) 271 cu.yd. Cass A concrete, 24,-510 lb. reinforcing steel, 230 lb. expansion plates and bolts, etc.; (3) 8¾ mi. road between Hornet Creek and city limit of Whitakers, Federal Aid Project 73, 18 ft. wide, Nash Co., (a) 12 acres clearing and grubbing, 48,700 cu.yd. common excav., 22,-750 cu.yd topsoiling, 1,298 ft. 15-30 in. metal pipe, 86 cu.yd. Class B concrete, (b) 1,-599 cu.yd. Class A concrete, 149,590 lb. reinforcing steel, 5,340 ft. untreated timber piles, 1,210 lb. expansion plates and bolts, etc. from J. M. Marrow, Clarksburg, Va., (1a) $32,448 (2a) $27,364; L. J. Smith Constr. Co., Knoxville, Tenn., (1a and b) $44,988; (2a and b) $40,950; Porter & Boyd, Realty Bldg., Charlotte, (1a and b) $49,222, (2a and b) $44,374, (3a and b) $151,675; Crawford & Crawford, Nevens, (3a) $53,771; P. R. Ashby, Raleigh, (3a) $65,106.

★**N. C., Greensboro**—Comrs. Guilford Co. let contract for 21,000 sq.yd. Warrenite-bitulithic pavement on 5 in. concrete base, to R. G. Lassiter, Kenoughton Rd., Norfolk, Va.

★**N. C., High Point**—City let contract for 7,000 sq.yd. Warrenite-bitulithic pavement on 5 in. concrete base, to R. G. Lassiter, Kenoughton Rd., Norfolk, Va.

★**S. C., Walhalla**—Comrs. Oconee Co. let contract topsoiling 8 mi. Seneca-Walhalla Rd., to Elliott & Sons, Union. About $45,000.

★**Ga., Chatsworth**—Murray Co. let contract building 6.7 mi. soil surface road between here and Whitfield-Murray Co. line, to Hagedorn Constr. Co., Commerce. About $75,000.

★**Lousiana**—State Highway Dept., New Orleans, let contract building 10.43 mi. Hammond-Baton Rouge Highway, gravel, Livingston Parish, to Peterman & Loustalot, Franklin, $125,714.

★**La., New Orleans**—City let contract paving Audubon St. from Zimple St. to St. Charles Ave., bitulithic, to Craven & Lang, 1015 Hibernia Bank Bldg., $28,623; building subsurface drains, to A. P. Boh, 4148 Banks St., $49,106.

★**O., Dayton**—Montgomery Co. let contract paving 1.7 mi. Troy Pike from Vandalia southward, 20 ft. wide, involving 20,000 sq.yd. concrete on concrete base, to C. Hoolihan, South Main St., $90,881.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 4.465 mi. State Trunk Line Rd. 55-1, 16 ft. wide, Missaukee Co., to G. Davenport, Pioneer, $29,484. Noted Nov. 4 under "Lake City."

★**Michigan**—State Highway Dept., Lansing, let contract improving 1.366 mi. State Trunk Line Rd. 10-32, Sect. B, involving 72.1 stations fine grading and 16,029 sq. yd. bituminous concrete wearing course, to Oakland Co. Rd. Comrs., Pontiac, $39,658.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing 3.575 mi. State Trunk Line Rd. 20-1, 6 ft. wide, Osceola Co. involving 18,951 cu. yd. earth excav., 33,491 sq.yd. gravel surfacing, etc., to T. H. Duvall, McBain, $33,-313. Noted Oct. 21.

★**Ill., Glenellyn**—Bd. Local Impvts. let contract paving Forest and Penn Aves., Park Blvd. and Oak St., rein.-con., to E. M. Scheflon, Elgin, $67,609.

★**Minn., Luverne**—City let contract for 150,000 sy.yd. concrete pavement on 6 in. base, to Hanlon & Okes, 338 Lumber Exch. Bldg., Minneapolis, $3.08 per sq.yd.

★**Minn., Morris**—Stevens Co. let contract graveling 17 mi. Federal Aid Project 127, to Dobbelmann & Rasmussen, 4232 Colfax Ave., S., Minneapolis, $72,351.

★**South Dakota**—State Highway Comn., Pierre, let contract grading and draining 2.09 mi. Chamberlain-Presho Rd., Federal Aid Project 49, Sect. A, 36 ft. wide, Lyman Co., and 3.15 mi. Presho-Winner Rd., Federal Aid Project 27-B, 36 ft. wide, Lyman and Tripp Counties, to R. P. England, Murdo, $32,903 and $39,471 respectively.

★**N. D., Cooperstown**—Comrs. Griggs Co. let contract grading 8 mi. Federal Aid Projects 17-A, 50 and 99, to Stanley Bros., Grand Forks, $29,523.

★**Montana** — State Highway Dept., Helena, let contract graveling 3 mi. Federal Aid Project 134, 24 ft. wide, Sweet Grass Co., to A. Carlson, Columbus, $35,080.

Tex., Bay City—Matagorda Co. received bids Nov. 13, improving 7.31 mi. Highway 12-A, (a) surfacing road with shell and building rein.-con. culverts, involving 33,169 cu.yd. earth borrow and 4,121 cu.yd. ditching, (b) furnishing 13,720 cu.yd. shell, from Starkey, Smith & James, Houston, (a) $33,-883; Billingsley & Ryman, Matagorda, (a) and (b) $63,443; Haden & Austin, 727 Kress Bldg., Houston, (a) and (b) $64,526. Noted Oct. 28.

Tex., Boston—Bowie Co. received only bid grading, surfacing and draining 4.05 mi. Highway 8 from Maud south to Sulphur River, 12 ft. wide, also grading, surfacing and building rein.-con. and steel bridges and culverts on 12.3 mi. Maud-Redwater Rd., 12 ft. wide, from Smith Bros., Corsicett, $63,325 and $203,564 respectively. Noted Nov. 4.

★**Tex., Cleburne**—Johnson Co. let contract grading, surfacing and draining 8 mi. Glen Rose Rd., 16 ft. wide, to Allhands & Davis, Wills Point, $68,900; 16 mi. Grandview Rd. 16 ft. wide, to O'Connor & Gibson, Campbell House, Dallas, $160,200.

★**Tex., Cleburne**—Johnson Co. let contracts grading, gravel surfacing and draining 8 mi. Godly and Cresson Rds., 20 ft. wide, also 20 mi. Cleburne-Dallas Highway, 20 ft. wide, to F. S. Harris Constr. Co., Ft. Worth, $64,371 and $157,547 respectively.

★**Tex., Cleburne**—Johnson Co. let contract grading, surfacing and building concrete culverts on 8 mi. Weatherford Rd., 16 ft. wide, to F. H. Harris Constr. Co., Ft. Worth, $64,000.

★**Tex., Dallas**—City let contract paving blocks 10th St. from Polk St. to Jefferson Ave., 30 ft. wide, asphalt on concrete base, to Texas Bitulithic Co., Praetorian Bldg., $30,713; 9th St. from Willomet to Bishop Sts., 30 ft. wide, asphalt on concrete base, to Uvalde Paving Co., 1001 Main St., $66,092.

★**Tex., Ft. Worth**—Tarrant Co. let contract grading, surfacing and draining 7.95 mi. Arlington-Grapevine Rd., 16 ft. wide, to T. A. Griffin, Seevers St., Dallas, $88,216.

★**Tex., Fredericksburg**—Gillespie Co. let contract grading, scarifying, surfacing and building rein.-con. bridges and culverts on 9.99 mi. Highway 9 from here south to Kendall Co. line, 16 ft. wide, to B. S. Davison, 1110 Harold Ave., Houston, $68,241; including 10% for engineering and contingencies. Noted Nov. 25.

INSPECTION SHED—NEW YORK, N. Y.

Bids were received by Transit Constr. Comn., Nov. 19th, for constructing inspection shed at 180th St. yards, from (A) S. S. Jones Constr. Corp., 473 West 158th St.; (B) Nugent Constr. Corp., 505 5th Ave.; (C) Bainbridge Constr Co., Inc., 52 Vanderbilt Ave.; (D) M. F. Kelly Co., Inc., 33 Old B'way.; $418,889; (E) G. Colon & Co., 81 East 125th St., $425,172; (F) D. C. Serber, 252 West 46th St., $445,311; (G) A. W. King, 81 East 125th St., $475,453; (H) J. Schlesinger, Inc., 259 West 30th St., $477,-797; (I) Rogers & Hagerty, 103 East 125th St., $485,899; (J) Thomas Dwyer, B'way. & 216th St., $497,246. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
2,300 cu.yd. excavation, earth, except for sewers, including disposal	$2.01	$4.00	$3.50
250 cu.yd. earth fill and top soil, sec. No. 224	1.15	5.00	3.50
5 cu.yd. excavation, rock, including disposal	2.01	15.00	20.00
1,500 cu.yd. structural concrete work (a) foundations	20.77	29.97	22.00
1,000 cu.yd. structural concrete work (b) floors	14.64	18.05	20.00
1,200 cu.yd. structural concrete work (c) reinforced	23.49	30.00	30.00
500 sq.yd. tooling	1.45	4.00	3.00
4,600 cu.yd. protective concrete masonry, outside of waterproof	9.81	32.11	35.00
2,000 cu.yd. brick masonry, except brick chimney	35.27	32.76	38.00
Brick chimney complete (c) boiler house (lump sum)	2,772.00	2,260.00	4,000.00
10 cu.yd. hollow tile, masonry	32.41	45.50	60.00
5 cu.yd. broken stone, other than in concrete	4.89	7.14	10.00
6,000 sq.ft. slag, or gravel roof	.21	.06	.20
650 sq.yd. waterproofing, without fabric	.58	.53	.80
150 sq.yd. waterproofing, 3-ply	1.31	1.07	2.00
9,700 sq.yd. waterproofing, 5-ply	1.50	1.60	1.50
1 ton steel, miscellaneous shapes	226.80	220.00	250.00
70 ton steel rods and bars in concrete	151.80	146.00	200.00
1 ton miscellaneous iron castings	504.00	300.00	300.00
40 trees, furnished and planted	2.30	12.00	20.00
140 hedges, Cal. Privet, furnished and planted	.58	1.07	12.00
100 sq.yd. plastering, flat. surf. brick or H.T.	1.13	1.54	3.00
10 sq.yd. plastering, flat surf., concrete	1.12	1.90	3.50
100 sq.yd. plastering, flat surf. metal lath	1.39	1.80	3.50
6,800 sq.ft. concrete work (a), 3½-in. slab	.44	.54	.65
5,000 sq.ft. concrete work (b) 4-in. slab	.44	.68	.80
115 sq.ft. concrete work, 6-in. slab	.54	.80	1.00
2,500 cu.yd. cinder fill	1.27	1.78	3.50
1,400 lin.ft. terra cotta coping, 12-in. walls	.67	.71	1.10
700 lin.ft. terra cotta coping, 16-in. walls	1.27	.98	1.60
50 sq.yd. metal lath, without furring	.69	1.00	2.00
50 sq.yd. metal lath, with furring	.86	4.00	3.00
Doors, other than kalamien:			
10 sq.ft., type D	3.15	4.05	3.50
80 sq.ft., type E	5.04	4.62	4.50
40 sq.ft., type F	4.41	4.76	3.50
230 sq.ft., type H	3.46	2.62	3.00
1,500 sq.ft., type N	3.78	4.38	5.00
Doors, Kalamien:			
400 sq.ft., type J	5.23	4.76	6.50
80 sq.ft., type K	3.15	3.57	9.00
40 sq.ft., type L	4.72	3.57	6.50
50 sq.ft., type M	4.09	3.45	5.50
50 sq.ft., type UU	6.30	6.00	4.50
230 sq.ft. windows, double hung	3.78	3.51	3.50
250 sq.ft. windows, hinged	4.09	3.00	2.50
Additional hardware:			
3 checks	17.01	15.00	20.00
12 swing door stops	5.04	4.00	10.00
14 rubber cover, chains	5.04	3.00	7.00
3 push plates	2.52	7.00	6.00
3 door pulls	5.04	6.00	5.00
3 pair kick plates	12.60	18.00	20.00
380 lin.ft. railings, pipe	3.59	4.00	3.50
12 lin.ft. steel ladders	4.16	2.00	4.00
Rough plumbing comp. (lump sum)	4,152.00	6,500.00	8,000.00
Plumbing fixtures:			
15 water closet bowls	143.64	133.00	120.00
42 lavatories	102.06	72.00	85.00
12 urinals	102.32	107.00	95.00

1 slop sink	158 76	148 00	140 00
5 floor drains	6 30	25 00	25 00
550 sq.ft. structural slate, pipe chamber part	1 58	1 45	2 50
250 sq.ft. structural slate, stall part	1 57	1 66	2 50
50 sq.ft. structural slate, floor slabs	3 78	1 45	3 00
160 lin.ft. structural slate, curved corners and angles	3 78	1 90	5 00
1,500 lb. miscellaneous steel shapes support, slate	25	20	30
4 c.-i. strainers, drain pipe	2 30	30 00	35 00
4 c.-i. strainers, cesspools	5 25	30 00	50 00
Electric conduits:			
7,300 lin.ft., ¾ in.	44	33	50
2,800 lin.ft., 1 in.	50	36	60
500 lin.ft., 1¼ in.	1 26	53	90
550 lin.ft., 2 in.	2 52	71	1 10
350 lin.ft., 2½ in.	3 15	1 02	1 60
20 lin.ft., 3 in.	3 78	1 33	2 10
275 lin.ft., 3½ in.	5 04	1 58	4 20
645 c.-i. outlet boxes	1 89	2 60	3 00
20 c.-i. pull boxes, 6x6x6 in.	8 82	8 70	12 00
20 c.-i. pull boxes, 6x6x4 in.	7 56	7 70	10 00
1 c.-i. pull box, 12x6x4 in.	10 08	12 95	25 00
1 c.-i. pull box, 8x6x4 in.	8 82	11 90	20 00
2 steel panel board boxes, 25x36x6 in.	50 40	32 00	85 00
2 steel panel board boxes, 45x29x6 in.	56 70	45 00	100 00
2 steel panel board boxes, 53x27x6 in.	63 00	45 00	135 00
Stairways, including landings, stairway "T" (lump sum)	546 25	884 00	900 00
Stairways, including landings, stairway "U" (lump sum)	1,578 15	1,318 00	2,300 00
Stairways, including landings, stairway "V" (lump sum)	1,578 15	1,415 00	2,500 00
500 lb. floor construction, checker steel plate	41	20	40
60,000 sq.ft. concrete cinder work, 1-in. cement, floor finish	15	13	15
2,800 lin.ft. concrete and cinder work, cement coping	22	25	65
220 cu.ft. concrete and cinder work, concrete curbs, skylight	70	1 20	1 50
3,500 cu.ft. concrete and cinder work, concrete roof gutters	63	57	1 00
60,000 sq.ft. roofing tile, interlocking	59	56	50
18,000 sq.ft. roofing tile, flat	61	57	50
1,400 sq.ft. copper flashing	1 07	77	80
150 lin.ft. leaders, 3-in. corr. g.i.	1 39	1 78	1 50
1,300 lin.ft. leaders, 4-in. w.i.	1 39	4 75	3 00
280 lin.ft. leaders, 4-in. c.-i.	1 39	4 00	2 50
90 lin.ft. saddles, c.-i.	1 74	6 60	3 00
20 lin.ft. saddles, steel	1 66	7 20	3 50
27,000 sq.ft. painting, plaster, brick and concrete	075	12	12
27,000 sq.ft. windows, steel sash, with pivoted panels	1 40	1 35	1 20
13 skylights, type "C"	68 04	708 00	250 00
5 skylights, type "D"	120 96	150 00	1,100 00
Water connections (lump sum), any size	579 60	1,000 00	500 00
50 lin.ft. narrow gauge track	2 30	8 33	7 00
7 bumping posts	517 50	500 00	700 00
350 lin.ft. standard gauge track	2 30	8 00	4 00
2 coal hatches	11 50	100 00	65 00
Extended totals	$358,565	$398,017	$414,17

Streets and Roads (Continued)

★**Tex., San Marcos**—Hays Co. will grade, surface and grade 17.05 mi. Austin-Fredericksburg Rd., 12 ft. wide, cost $64,154; including 10% for engineering and contingencies. Work will be done by day labor under supervision of J. R. Wilhelm, co. judge. Noted Nov. 18.

Tex., Sherman—Grayson Co. received bids grading, surfacing and draining 7.37 mi. Jefferson Highway 11, from Womack Constr. Co., Sherman, $68,087; Mineral Springs Constr. Co., Mineral Springs, $70,606; J. Houchins, 2608 Cedar Springs St., Dallas St., Dallas, $77,347; material furnished by county, to cost $28,299. Work involves 6.43 acres clearing and grubbing, 44,195 cu.yd. borrow and 9,657 cu.yd. earth excav., 11,791 cu.yd. gravel surfacing, 36,622 lb. reinforcing and 23,500 lb. structural steel, 487.6 cu.yd. 1:2:4, 40.4 cu.yd. 1:2½:5 and 4.9 cu.yd. 1:3:6 concrete.

★**Wash., Seattle**—City let contract paving, grading and curbing Seattle Blvd., et al., involving 10,270 sq.yd. brick block on 6 in. base, 10,760 sq yd. 8 in. concrete, 3,250 lin.ft. armor concrete curbing, 6,500 lin. ft. special concrete curbing and 65,000 cu.yd. earth excav., to F. McLellan, 1720 16th Ave., $176,888. Noted Nov. 11.

Ore., Forest Grove—City let contract paving various streets, involving 4,257 sq.yd. Warrenite bitulithic on 4 in. crushed rock foundation, to Warren Constr. Co., Journal Bldg., Portland.

★**Ore., Pendleton**—City let contract paving various streets, involving 10,982 sq.yd. Warrenite bitulithic on 3½ in. gravel foundation, to Warren Constr. Co., Journal Bldg., Portland.

Cal., Brawley—City received bids Nov. 15, improving 8th and H Sts and various alleys, from G. W. Cushing, Richmond, involving 213,000 sq.ft 6 in. cement concrete pavements, at $0.36 per sq.ft., 8,800 sq.ft. sidewalks, $0.25, 6,500 lin.ft. Class "A" curbing, $0.75. G. R. Wade, city engr.

★**Cal., Fresno**—City let contract improving Van Ness Blvd. between University and Terrace Aves., to Thompson Bros., 1514 H. St., $60,810.

★**Cal, Los Angeles**—Bd. Pub. Wks. let contract improving Normandie Ave., to G. R. Curtis, 2440 East 26th St., $24,700.

★**Cal., Los Angeles**—City let contract improving and building sewers in Crown Hill and Columbia Aves., 2nd, 3rd, 6th and Witmer Sts., to Fairchild-Gilmore-Wilton Co., 396 Pacific Electric Bldg., $58,855.

★**Cal., San Diego**—Common Council let contract paving Lytton and Voltaire Sts. and Chatsworth and Catalina Blvds., to Fairchild-Gilmore -Wilton Co., 25 14th St., $98,684. Noted Nov. 25.

★**Ont., Toronto**—City let contract building bitulithic pavements on 2 streets, to Warren Bituminous Paving Co., McKinnon Bldg., $20,278; asphalt on 1 street, to Constr. & Paving Co. Ltd., Confederaton Life Bldg., $4,389.

Railways

PROPOSED WORK

Massachusetts—Commenwealth of Massachusetts, Mental Disease Comn., State House, Boston, plans to build spur railroad track in Westboro, from New York, New Haven and Hartford R.R. at Talbot Sta. to power house of State hospital. About $50,000.

Florida — See "Industrial Works" under Hastings.

Quebec—Quebec & Chibongaman Ry. Co., Chicoutimi, receives bids in April building 120 mi. rajlway from St. Felicien to Chicoutimi, 130 mi. from Chicoutimi to Quebec, and 150 mi. from St. Felicien to Chibougaman. About $20,000,000. J. F. Grenon, ch. engr.

BIDS DESIRED

New York—Until Dec. 10, by Pub. Serv. Comn., 49 Lafayette St., New York City, for special work on track crossings in Livonia Ave. Yards, Brooklyn. About $68,000. Former bids rejected. Noted Sept. 23.

Excavation and Dredging

PROPOSED WORK

Fla., Port Tampa—Dredging—Atlantic Coast Line Ry. Co., Atlantic Coast Line Bldg., Wilmington, N. C., plans to dredge channel, here, (24½ ft.) to depth of 27 ft., involving 50,000 cu.yd. rock and 37,120 cu. yd. earth excav. J. E. Willoughby, ch. engr.

Fla., Tampa—Dredging—W. C. Clarkson plans to dredge slip, 1,450 ft. long, 200 ft. wide, and 16 ft. deep, involving 320,000 cu.yd. excav. About $75,000. Engineer not selected.

Ill., Illiopolis—Drainage—Drainage Comrs. D. D. 1 rejected bids received Nov. 6, improving D. D. 1, Sangamon Co. J. W. Dapper, Taylorville, engr. Noted Oct. 28.

Ill., Vandalia — Excavation — Kaskaskia River Drainage Comrs. plans to straighten 50 mi. Kaskaskia River. About $2,000,000. J. V. Waddell, ch. engr.

Wis., Burnett—Drainage—E. Pfaff, and Dodge Co. (Juneau), receives bids in winter, building Burnett Farm D.D. 1, involving 37,000 ft. drain tile. About $15,000. L. S. Keeley, Mayville, engr. Noted Nov. 4.

Wis., Wisconsin Rapids—Ditch—Farm Drainage Bd. plans to build 12.75 mi. open ditch, in Wood Co., involving 13,200 ft. 8-12 in. tile, etc. About $55,000. A. E. Bean, Vesper, secy.

S. D., Armour—Drain—Comrs. Douglas Co. rejected bids received Sept. 10, building Voss Drainage System, involving 15,700 cu. yd. excav. Western Eng. Co., Yankton, engrs. Noted Aug. 19.

BIDS DESIRED

Ia., Creston—Ditch—Until Dec. 8, by B. M. Breed, aud. Union Co., building county ditch, involving 177,999 cu.yd. excav., 10,875 lin.ft. 6-12 in. tile, etc. About $50,000. G. A. Perry, Creston, engr.

Ia., Jefferson—Drainage—Until Dec. 7, by G. A. Coburn, aud. Greene Co., building D. D. 147, involving 68,450 ft. 6-30 in. tile; D. D. 146, 35,230 ft. 6-28 in. tile; D. D. 138, 7,700 ft. 10-28 in. tile; D. D. 155, 13,420 ft. 6-20 in. tile; D. D. 134, 13,930 ft. 6-22 in. tile. S. J. Melson, engr.

Ia., Wapello—Drainage—Until Dec. 20, by F. G. Wright, aud. Louisa Co., building D. D. 22, to include 5 mi. ditches and involved 71,000 cu.yd. excav. about $23,000. V. E. Thompson, Wapello, Engr. Noted Oct. 21.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Emmetsburg**—Drainage—Palo Alto Co. let contract improving D.D. 123, to Berkler & McNulty, Emmetsburg, at $0.20 per cu.yd. Noted Nov. 25.

★**Ia., Logan**—Drainage—Harrison Co. let contract building Cut-Off D. D., involving 45,000 cu.yd. excav., to J. Young, Modale, $0.37 per cu.yd.

★**Ia., Nevada**—Drainage—Story Co. let contract building Washington Twp. Drainage Ditch 79, involving 13,066 cu.yd. excav., to C. E. Elzy, Nevada, $0.44 per cu.yd.

★**Ia., Spirit Lake** — Drainage — Comrs. Emmett and Dickinson Counties let contract building D. D. 3, to Graettinger Tile Wks., Graettinger. Noted Sept. 16.

★**Ia., West Union**—Drainage—Fayette Co. let contract building DD-1, involving 82,325 lin.ft. 5-38 in. tile, to Paine & Gjellefald, Algona. About $78,000.

★**Minn., New Ulm**—Ditch—Brown and Cottonwood Counties, let contract building Judicial Ditch 7, involving 44,975 ft. 6-28 in. tile, 6,318 ft. 10-18 in. sewer pipe, 140 lb. 8 in. headwalls, etc., to New Ulm Drainage Constr. Co., New Ulm, $66,312.

★**S. D. Armour**—Drain—Comrs. Douglas Co. let contract building Garden Valley Drainage System, involving 246,000 cu.yd. excav. and Mud Lake Drainage System, 182,000 cu.yd. excav., to Northern Minnesota Drainage Co., Litchfield, $.25 per cu. yd. Noted Aug. 19.

Industrial Works

PROPOSED WORK

Mass., Boston—T. L. Harkins Machine Co., 44-54 Farnsworth St., plans to build 2 story, 50 x 100 ft. rein.-con. plant, on Cambridge St. Cost between $50,000 and $60,000. Architect not selected.

Mass., East Walpole—Bird & Son, Inc., plan to build 1 story, 50 x 200 ft. addition to plant, concrete, brick and steel, rein.-con. flooring, concrete foundation. C. T. Main, 201 Devonshire St., Boston, engr.

Mass., New Bedford — New Bedford Shuttle Co., 24 Elm St., plans to build 3 story, 60 x 160 ft. addition to plant, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Rochdale Ave. Leary & Walker, 307 Times Bldg., archts.

Mass., Shirley—Commonwealth of Massachusetts, 36 State House, Boston, having plans prepared by Densmore & LeClear, archts., 88 Broad St., Boston, for 1 and 2 story, 35 x 140 ft. concrete, brick and steel laundry and kitchen building, rein.-con. flooring, concrete foundation, at State School, here.

R. I., Pawtucket—Hope Webbing Co., 1005 Main St., plans to build 5 story, 80 x 198 ft. concrete and brick addition to plant, also 1 story, 20 x 30 ft. boiler house. About $300,000 Perry & Whipple, Hospital Trust Bldg., Providence, engrs.

Industrial Works (Continued)

N. Y., Geneva—City Council appropriated $355,000 for new buildings at Experimental Sta.

N. Y., New York—Figge & Hutwelker, 627 West 40th St., having plans prepared by Henshein & McLaren, archts., 37 West Van Buren Ave., Chicago, for tank house. About $500,000.

Pa., Lewistown—Pennsylvania Wire Glass Co., Pennsylvania Bldg., Phila., having plans prepared by F. A. Hayes, archt., Pennsylvania Bldg., Phila., for 1 story, 175 x 600 ft., concrete and brick plant, here.

Pa., Reading—W. G. Hollis Candy Mfg. Co., c/o F. Muhlenberg, archt., Flanders Bldg., Phila., having plans prepared for 4 story, 20 x 80 ft., brick factory, on Plum and Franklin Sts.

Va., Richmond—C. G. Mercer and R. C. Sutton, 218 North 9th St., plan to build 3 story, 40 x 50 x 150 ft garage, at 608-610 East Grace St. About $40,000. Private plans.

N. C., Canton—Champion Fiber Co. plans to build and equip 140 x 410 ft. paper mill, and 92 x 400 ft board mill, rein.-con., brick and steel. About $750,000 and $650,000 respectively.

La., New Orleans—G. B. Matthews & Son, 412 South Front St., having plans prepared by M. H. Goldstein, archt., 305 Baronne St., for factory and warehouse, on Cortez, Telemachus and Scott Sts. About $250,000. Noted Nov. 4.

O., Cleveland—Continental Grocery Stores, Union Bldg., plan to build 3 story, rein.-con., brick and steel warehouse, rein.-con. flooring, brick and concrete foundation. About $75,000. L. M. Ridenour, pres. Private plans.

O., Cleveland—Natl. Carpet & Rug Mfg. Co., 1971 West 50th St., having plans prepared by Whitworth & Johnson, archts., 413 Engrs. Bldg., for 2 story, 40 x 123 ft., brick and steel factory, brick foundation, on Lorain Ave. About $50,000.

O., Cleveland—Telling-Belle-Vernon Co., c/o W. E. Telling, 3825 Cedar Ave., plans to alter dairy plant, rein.-con., brick and steel, rein.-con. flooring, on Eagle Ave. About $100,000. Christian-Schwarzenberg & Gaede, 1900 Euclid Ave., archts. and engrs.

O., Cleveland—W. S. Tyler Co., Superior Ave., had plans prepared by G. S. Bider & Co., archts. and engrs., Century Bldg., for 4 story, 60 x 260 ft., brick, steel and concrete factory addition, brick and concrete foundation. About $250,000.

Ind., Ft. Wayne—Ft. Wayne Union Stock Yard, Inc., purchased 35 acre site east of here, and plans to build stock yard. About $200,000. Address F. D. Gibson, genl. mgr.

Ind., Indiana Harbor—Lampagraph Co., Rialto Theatre Bldg., St. Louis, Mo., plans to build factory, here. About $200,000. G. M. Dobson, pres. Architect not selected.

Ind., Indianapolis—M. L. Carr, archt., Indianapolis, opens bids about April 1, building 2 story, 95 x 150 ft. slaughter house, brick, on bank of White River, for F. D Gardner & Co., 221 East Maryland St. About $100,000

Ind., Lafayette—Chamberlain Ice Cream Co., 5th and Alabama Sts., having plans prepared by Riedel & Zink, archts., Lafayette, for 2 story, 60 x 120 ft., rein.-con., brick and steel factory, rein.-con. flooring, on 5th St. About $100,000.

Ind., Lafayette—Lafayette Printing Co. having plans prepared by Riebel & Zink, archts., Lafayette, for 3 story, 80 x 100 ft. printing plant, rein.-con., brick and steel, rein.-con. flooring. About $150,000.

Ind., Linton—City having plans prepared by Shrouds, Stoner Co., archts., Tribune Bldg., Terre Haute, for 1 story, 75 x 100 ft., light plant, rein.-con., brick and steel, rein.-con. flooring. About $100,000.

Ind., Richmond—W. Stevens, city clk., opens bids about Dec. 15, building 1 story, 75 x 85 ft. light plant, concrete, brick and steel, rein.-con. flooring. About $175,000. J. D. Lyon, 2513 Union Central Bldg., Cincinnati, O., engr.

Ind., Valparaiso—Pioneer Truck Co. having plans prepared by Ronneberg, Pierce & Hauber, archts., 10 South La Salle St., Chicago, for 1 story, 300 x 600 ft., concrete, brick and steel factory, concrete foundation. About $500,000. Noted Aug. 26.

Mich., Detroit—Anchor Bldg. Co., c/o F. J. Winter, archt., 2331 Dime Bank Bldg., having plans prepared for 2 story, 50 x 100 ft. paint shop, brick and steel, brick foundation, on West Grand Blvd. About $50,000.

Ill., Chicago—Great Western Laundry, 2125 West Madison St., opens bids about Dec. 20, building 3 story, 95 x 170 ft., rein.-con. and brick laundry, concrete foundation. About $225,000. A. L. Himelblaw, 179 West Washington St., archt. Noted Jan. 1.

Ill., Chicago—A. S. Alshuler, archt., 28 East Jackson St., opens bids in January, building 2 story, 100 x 180 ft., rein.-con. and brick factory, concrete foundation, on 42d and Ogden Sts., for Turner Mfg. Co., 1444 South Sangamon St. About $200,000.

Ill., Fairfield—Sexton Mfg. Co. having plans prepared for 2 story, 100 x 107 ft., brick, machine shop. About $40,000. W. E. Felix, archt.

Wis., Hartford—Hartford Tool & Machine Co. plans to build 2 story, 60 x 150 ft., brick, rein.-con. and steel machine shop, rein.-con. flooring, brick foundation, on Main St. About $75,000. F. Jordan, mgr. Architect not selected.

Wis., Kenosha—Kenosha Ice Cream Co., 493 Elizabeth St., having plans prepared by C. Augustine, archt., Kenosha, for 2 story, 46 x 75 ft., concrete and brick factory, rein.-con. flooring, concrete foundation, on Grand Ave.

Wis., Kewaunee—Wisconsin Shipbuilding & Navigation Co. plans to construct several 1 story buildings. About $200,000. J. W. Barber, 345 35th St., Milwaukee, interested. Probably private plans.

Wis., La Crosse—Mathews Mfg. Co., c/o W. Mathews, Rocky River, O., plans to build 2 story, 125 x 300 ft., steel and frame factory, here. About $100,000. Private plans.

Wis., Milwaukee—See "Buildings."

Wis., Peshtigo—Oconto Serv. Co. plans to build addition to power house. T. A. Pamperin, pres. Mead & Seastone, Madison, engrs.

Wis., Sheboygan—Hand Knit Hosiery Co., 14 Huron St., plans to build 2-4 story, 60 x 250 ft., brick, rein.-con. and steel factory, brick foundation, on 14th St. About $100,000. H. Chesebro, pres. Architect not selected.

Wis., Stevens Point—Farmers Tractor Corp., 80 State St., Oshkosh, plans to build 4 story, brick, rein.-con. and steel factory, brick foundation, on Patch St., here. About $150,000. J. Mainland, pres. Architect not selected.

Wis., Watertown—Badger Concrete Mixer Co., 221 Grand Ave., Milwaukee, plans to build 1 story, 80 x 200 ft., brick and steel factory, rein.-con. flooring, concrete foundation, here. Architect and engineer not selected.

Ia., Ft. Madison—Hinde & Dauche Co. plans to build paper mill. About $100,000.

Minn., Minneapolis—L. C. Apt, pres. Apt. Investment Co., 226 Marquette Ave., receives bids about Dec. 20, building 2 story, 100 x 100 ft. rein.-con. and brick garage on Nicollet Ave. and 19th St. About $50,000. S. J. Bowler, 617 Phoenix Bldg., archt.

Minn., Minneapolis—State Bd. Control, Capitol Bldg., St. Paul, plans to build mines experiment station, at State University, here, 2 or 3 story, rein.-con. and brick. About $250,000. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt.

Mo., Kansas City—White Co., East 79th St. and St. Clair Ave., had plans prepared by Watson Eng. Co., archts. and engrs., Hippidrome Bldg., Cleveland, for 3 story, 120 x 144 ft. auto service station, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on 28th and Warwick Sts. About $250,000.

Ark., Springdale—Welch Grape Juice Co. plans to build factory. About $500,000. Architect not selected.

Tex., Dallas—Oliver Chilled Plow Wks., 811-13 Elm St., having plans prepared and receives bids in January, building 10 story, 142 x 200 ft., brick, rein.-con. and steel factory and office, rein.-con. flooring, concrete foundation, on Market, Collin and Jefferson Sts. About $600,000. Lang & Witchell, Amer. Exch. Natl. Bank Bldg., archts.

Tex., Dallas—Undertakers Co-operative Casket Mfg. Co. plans to build factory. About $300,000. C. F. Weiland, 517 North Ervay St., organizer.

Okla., Picher—Lead & Zinc Co. plans to build rein.-con. warehouse, rein.-con. flooring. About $100,000. J. McNichols, mgr. Private plans.

Wash., Tacoma—City plans to construct 2 story, 100 x 200 ft., warehouse, supply and shop building, rein.-con., rein.-con. flooring. About $75,000.

Cal., Los Angeles—Coast Envelope Co., Higgins Bldg., plans to construct 2 story, 140 x 160 ft. rein.-con., Class "A" construction factory on Sante Fe Ave. and Jesse St.

Que., Montreal—Canadian Welding Co., Amherst St. near Ontario St., plans to build plant on St. Timothee St. About $60,000.

Que., Montreal East—Dominion Carriage Co., Marien Ave., plans to build 4 story, brick and steel addition to plant here. About $50,000. F. Arthur, mgr.

BIDS DESIRED

Mass., Worcester—A. F. Gray, archt., 53 State St., Boston, receiving bids building 2 story, 87 x 123 ft. concrete brick and steel garage, rein.-con. flooring, concrete foundation, on Murray Ave. and Wellington St., for Conroy Motor Co. About $100,000. Noted Nov. 4.

N. J., Ridgefield—Until Dec. 6, by W. B. Wills, Inc., archts. and engrs., 1181 Myrtle Ave., Brooklyn, building (revised plans) 2 story, 100 x 500 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Grand Ave. and Hall St., here, for Continental Paper Box Co., 122 Washington St., Brooklyn. About $250,000. Noted Nov. 18.

Pa., Bethayres—C. B. Keen, archt., 1218 Chestnut St., Phila., receiving bids building 1 story, 150 x 250 ft., concrete and brick factory, here. Owners name withheld.

Pa., West Brownsville—Until Dec. 9, by J. R. Herbertson, building 2 story, 84 x 123 ft., brick and concrete garage. About $80,000. E. R. Johnson, Uniontown, archt.

Fla., Hastings—United Sugar Corp., 1512 Walnut St., Phila., receiving bids building sugar refinery, twelve, 1 story (4 room) houses, ⅞ mi. spur track, etc., 3 mi. west of here. About $1,000,000. G. P. Anderson, 1512 Walnut St., Phila., engr. Noted May 20.

O., Youngstown—Until Dec. 8, by Bd. Educ., 14 Wood St., building and installing equipment in heating and ventilating plant for Rayen High School. About $40,000. S. R. Creps, 527 New Court St., dir. of schools. C. F. Owsley, 1301 Mahoning Bank Bldg., engr.

Mo., St. Louis—St. Louis Paper Can & Tube Co., 4400 North Union Ave., receiving bids building 1 story, 100 x 900 ft. steel factory, on Big Bend Rd. along tracks of Missouri Pacific R.R. About $100,000. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Mansfield**—Chocolate Refiners Inc., 427 Commercial St., Boston, will build 2 story, 80 x 240 ft. brick and mill construction storehouse. About $150,000. Work will be done by day labor.

★**Mass., Worcester**—Grocers Bread Co., c/o L. S. Beardsley, archt. and engr., 116 West 39th St., New York City, let contract building brick and steel plant, rein.-con. flooring, concrete foundation, on Main St., to J. M. and C. J. Buckley, 128 Vernon St. About $60,000. Noted Sept. 9.

★**R. I., Providence**—Autocar Sales & Service Co., 302 Pearl St., let contract building 3 story, 46 x 79 ft. concrete, brick and steel service station, rein.-con. flooring, concrete foundation, on Pearl and Rice Sts., to F. L. Pierce, 74 Weybosset St. About $50,000.

R. I., Providence—L. E. Danforth, 76 Dorrance St., will build 1 story, 110 x 150 ft. concrete and brick garage, rein.-con. flooring, concrete foundation, on Byfield St. About $50,000. Work will be done by day labor.

★**Conn., Norwalk**—Leroy Shirt Co., 114 5th Ave., New York City, let contract building 2 story, 65 x 200 ft. brick and steel plant, concrete foundation, on Chestnut St., here, to T. S. Pardy Constr. Co., 1481 Seaview Ave., Bridgeport. About $80,000.

Industrial Works (Continued)

★**Conn., Windsor**—A. W. Lovell, Windsor Ave., let contract buildings 1 story, 100 x 146 ft. iron and timber garage, rein.-con. flooring, concrte foundation, on Central St., to E. Swanson, Windsor.

★**N. Y., Brooklyn**—J. Polivnick, 267 Barrett St., will build 2 story, 95 x 95 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on South 4th St. between Drigg Ave. and Roebling St. About $125,000. Work will be done by day labor.

★**N. Y., Poughkeepsie**—Walters Motor Co. let contract building 1 story, 100 x 300 ft., brick and steel factory, brick foundation, to H. K. Ferguson Co., 6523 Euclid Ave., Cleveland, O. About $100,000.

★**N. Y., Sheepshead Bay** (Brooklyn P. O.)—C. A. Benoit, Jerome Ave., let contract building chemical factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Gretsch Eng. Corp., 102 Park Ave., New York City. About $150,000. Former contract rescinded. Noted Sept. 30.

★**N. Y., Tonawanda**—Stanley Steel Welded Wheel Corp., 40 Court St., Boston, let contract building 1 story, 90 x 200 ft., rein.-con. and steel factory, rein-con. flooring, concrete foundation, to J. W. Cowper, Fidelity Bldg., Buffalo. About $100,000. Noted Oct. 14.

★**N. Y., Utica**—Utica Spinning Co., Whitesboro St., let contract building 3 story addition to factory, brick and steel, rein.-con. flooring, concrete foundation, to Foundation Co., Woolworth Bldg., New York City. About $200,000.

★**N. Y., Yonkers**—Hudson Tire & Rubber Corp., Proctor Bldg., let contract building 3 story, concrete and steel factory, on Nepperhan Ave., to J. Mitchell, Inc., 76 Montgomery St., Jersey City. About $300,000. Noted Sept. 16.

★**N. J., New Brunswick**—Arctic Ice Co., 56 French St., let contract building storage plant, 3 story, 50 x 100 ft., to N. A. Bugbee Co., 206 East Hanover St., Trenton. About $75,000.

★**Pa., Cresson**—Penn-Cress Ice Cream Co. let general contract building 2 story, 50 x 90 ft. plant, brick and steel, rein.-con. flooring, on Park Ave., to E. A. Wehr, Highland Bldg., Pittsburgh. About $50,000. Noted Nov. 4.

★**Pa., Nanticoke**—Genl. Cigar Co., c/o A. Freeman, archt and engr., 29 West 34th St., New York City, let contract building 3 story, 90 x 155 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, here, to Nanticoke Constr. Co., Nanticoke. About $140,000. Noted Nov. 18.

★**Pa., Pittsburgh**—Pittsburgh Truck Mfg. Co., 609 Neville St., will build garage and repair shop, 2 story, 100 x 100 ft., on 44th St. and along tracks of Pennsylvania R.R. About $75,000. Work will be done by day labor. Noted Nov. 11.

★**Md., Amcelle** (Baltimore P. O.)—Amer. Cellulose & Chemical Mfg. Co., Ltd., 681 5th Ave., New York City, let contract building 1 story, rein.-con. and brick plant, concrete foundation, here, to G. A. Fuller Co., 175 5th Ave., New York City. About $200,000.

★**W. Va., McDonald**—New River Co. let contract building 1 story, 90 x 122 ft. warehouse and 100 x 220 ft. machine shop, brick and steel, to Austin Co., 16112 Euclid Ave., Cleveland, O. About $150,000.

★**O., Canton**—Wheeling & Lake Erie R. R., Electric Bldg., Cleveland, let contract building 1 story, 10 stall, round house, brick and steel, brick foundation, at Gambrines Yards, here, to C. R. Cummins Co., 1305 Swetland Bldg., Cleveland. About $200,000.

★**O., Cleveland**—Amer. Steel & Wire Co., c/o H. R. Klepinger, Western Reserve Bldg., will build 1 story, 53 x 134 ft., rein.-con., brick and steel boiler house, rein.-con. flooring, brick and concrete foundation, on East 40th St. and Lakeside Ave. About $75,000. Work will be done by day labor.

★**O., Cleveland**—Cleveland Folding Bed Co., 2554 East 55th St., let contract building 2 story, 70 x 70 ft., brick and steel factory, brick foundation, at 3740 Central Ave., to L. Goodman, 1005 Ansel Rd. About $40,000. Noted Sept. 16.

★**O., Jewett**—Wheeling & Lake Erie R.R., Electric Bldg., Cleveland, let contract building 1 story, 6 stall roundhouse, brick and steel, brick foundation, here, to Lake Erie Constr. Co., Hickox Bldg., Cleveland. About $75,000.

★**O., Mt. Vernon**—C. and G. Cooper Co., 11 Bway., New York City, let contract constructing several 1 and 2 story, foundry and machine shop buildings, rein.-con. and steel, rein.-con flooring, concrete foundations, here, to D. P. Robinson & Co., Inc., 125 East 46th St., New York City. About $400,000.

★**Ill., Chicago**—J. T. Ryerson & Son, 16th and Rockwell Sts., let contract building 1 story, 125 x 125 ft., concrete and steel garage, concrete foundation, to A. L. Thompson & Co., 139 North Clark St. About $100,000.

★**Ill., Chicago**—Union Bed & Spring Co. let contract remodeling 3 story, 125 x 600 ft. warehouse into factory, on 44th and Colorado Sts., to Gerhard & Meyne, 127 North Dearborn St. About $150,000.

★**Ill., Chicago**—Weiland Dairy Co. let contract building 1 and 2 story, 140 x 150 ft., rein.-con. and brick dairy, concrete foundation, at 3014-28 5th Ave., to Behrens Constr. Co., 2149 North Talmon Ave. About $125,000.

★**Ill., Elgin**—Sweet Spot Confectionery Co. let contract building 2 story, 70 x 80 ft., brick and mill construction plant, to L. E. Palm and A. McTavish, Elgin. About $40,000.

★**Wis., Granville**—T. J. Moss Tie Co., Security Bldg., St. Louis, Mo., let contract constructing 1 story, 40 x 200 ft. steel, creosoting plant, to include 3 buildings, also 30 x 40 ft., concrete and brick boiler house, to J. L. Stanage, 141 Oneida St., Milwaukee. Noted Nov. 18.

★**Wis., Janesville**—N. D. Bingham let general contract building 1 story, 50 x 122 ft. furniture warehouse, to Willis & Deason, Hayes Bldg. About $50,000.

★**Minn., Minneapolis**—Green Mountain Investment Co. will build 6 story, 150 x 200 ft. rein.-con. and brick warehouse, at 724-36 Washington Ave. N. About $250,000. Work will be done by day labor. Address W. F. Andrews, 322 South 4th St.

★**Kan., Baxter Springs**—General Amer. Oil Co., 604 New 1st Natl. Bank Bldg., Tulsa, Okla., will build 1 story oil refinery, in southeastern section of this town. About $100,000. Work to be done by day labor under supervision of J. Pearl, supt.

Buildings

PROPOSED WORK

N. H., Concord—Club—Knights of Columbus, 45 Pleasant St., having plans prepared by G. S. Forrest, archt., 20 Pleasant St., for 2 story, 75 x 85 ft., brick, concrete and steel addition.

N. H., Manchester—School—Bd. Educ. having plans prepared by W. M. Butterfield, archt., 801 Beech St., for 2 story brick. About $75,000.

Mass., Amherst—College—Amherst College plans to remodel church and construct 3 story dining room building, on campus. About $300,000. Architect not announced.

Mass., Boston—Hospital—Boston City Hospital, 818 Harrison Ave., plans to build Thorndike Memorial Hospital, 3 story, 60 x 125 ft. brick and concrete, on East Concord St. About $350,000. Maginnis & Walsh, 100 Boylston St., Boston, archts.

Mass., Boston—Restaurant—E. S. Eaton & Sons, 219 Washington St., plan to build 5 story, brick, stone and concrete addition. Project will mature in spring. S. D. Kelley, 46 Cornhill, archt.

Mass., Dorchester (Boston P. O.)—School—Schoolhouse Dept., City Hall Annex, Boston, had plans prepared by H. H. Atwood, archt., 61 Aban St., for Roger Wolcott School, 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $400,000.

Mass., Lynn—Club—Knights of Pythias, 23 Central Ave., plan to build 2 or 3 story, 90 x 180 ft. brick and stone. About $175,000. E. F. Earp, 333 Union St., archt.

Mass., Lynn — Temple — Masonic Society plans to build brick and stone, on Broad St. Cost between $100,000 and $125,000. W. G. Upham, 15 Marion Ave., Norwood, archt.

Mass., Newton (Boston P. O.)—Science—Boston College, Chestnut Hill, plans to build 3 story, brick, steel and stone, on College Rd. About $375,000. Maginnis & Walsh, 100 Boylston St., Boston, archts.

Mass., North Adams—School—City plans to build 2 story, brick and steel, on State St. About $125,000. Architect not selected.

Mass., Roxbury (Boston P. O.)—Nurses Home—Childrens Hospital, 300 Longwood Ave., plans to build 3 story nurses home and servants quarters, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $600,000. Coolidge & Shattuck, 122 Ames Bldg., Boston, archts. Noted Oct. 7.

Mass., Springfield — Hall — McEnellys Orchestra, Sumner Ave., plans to build 1 story, 75 x 150 ft., cement and steel, concrete foundation. Project will mature in spring. About $75,000. Associate Architectural & Eng. Co., 145 State St., archts.

Mass., Williamstown—School—Town plans to build 2 story, brick and steel, on School St. About $150,000. T. M. Banks, chn. building com. Harding & Seaver, 7 North St., Pittsfield, archts.

Mass., Worcester—College—Assumption College, Assumption Ave., plans to build brick, stone and steel addition. About $500,000. Architect not announced.

R. I., Providence — Hospital — Homeopathic Hospital of Rhode Island, 62 Jackson St., having plans prepared by Kendall Taylor & Co., archts., 93 Federal St., Boston, for 3 story, brick addition on Chalkstone Ave. About $150,000.

Conn., Bridgeport — Church — Bethany Congregational Church plans to build 1 story, brick and steel, on North Main and Thorne Sts. About $75,000. M. M. Dunklee, 210 Fairview Ave., pastor. Architect not selected.

Conn., New Britain—Nurses Home—New Britain General Hospital, 92 Grand St. having plans prepared by Scopes & Feustmann, archts., 64 Main St., Saranac Lake, N. Y., for 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Grand St. About $100,000. Noted Oct. 7.

Conn., New Britain—School—City plans to build fireproof school. About $1,000,000. F. N. Gaffney, chn. School Comm. Guilbert & Betelle, 665 Broad St., Newark, N. J., archts.

Conn., New Britain — School — State School Bd., State Capitol, Hartford, having sketches made for normal school and dormitory, here. About $900,000.

Conn., Thompsonville—School—Town of Enfield rejected bids received Nov. 18, building 2 story, 8 room, concrete, brick and steel rein.-con. flooring, concrete foundation, on North Main St. I. A. Allen, Jr., archt., 904 Main St., Hartford, revising plans and will take new figures from selected list of bidders. About $130,000. Noted Nov. 4.

N. Y., Albany—Hotel—J. D. Keeler, c/o Warren & Wetmore, archts. and engrs., 10 East 47th St., New York City, soon receives bids building 14 story, brick, steel and stone, concrete foundation, on Bway., here. Noted Jan. 29.

N. Y., Buffalo—Schools—Bd. Educ. opens bids about Jan. 2, building 3 brick and stone, brick foundations. About $200,000 each. Private plans.

N. Y., New York—Bank and Office—Bowery Savings Bank, Bowery and Grand St., plans to build 20 story, 105 x 200 ft., brick, steel and stone, concrete foundation, on East 42nd St. About $1,000,000. Architect not selected.

N. Y., New York—Convent—Our Lady of Perpetual Health Catholic Church, c/o E. Lynch, archt. and engr., 341 5th Ave., soon receives bids building 3 story, brick and stone, brick foundation, on 5th Ave. and 59th St. About $100,000.

N. Y., New York—Institution—Society for Prevention of Cruelty to Children, 83 Irving Pl., having sketches made by Maynicke & Franke, archts. and engrs., 25 East 26th St., for brick, steel and stone, concrete foundation, on 5th Ave. between 104th and 105th Sts. About $3,000,000.

N. Y., New York—Theatres—M. Klaw, Inc., 1451 Bway., having sketches made by De Rosa & Pereera, archts. and engrs., 110 West 40th St., for 2 brick, stone and steel, concrete foundations, on 46th St. near 8th Ave. About $650,000.

N. Y., Rochester—Home—Knights of Columbus, 700 Main St. E., plan to build new home. About $400,000. J. M. O'Grady, pres. Architect not selected.

N. J., Bayonne—Church—St. Johns Roman Catholic Church plans to build 3 story, 67 x 167 ft., brick and stone. About $187,000. R. A. Schumann, 932 Lamberton St., archt.

Buildings (Continued)

N. J., Madison—High School—Bd. Educ. having plans prepared by Guilbert & Betelle, archts., 2 Lombardi St., Newark, for 20 room high school, here. About $300,000. Noted Jan. 15.

N. J., Trenton—Hospital—W. McKinley Memorial Hospital, Brunswick Ave., plans to build wing. About $100,000. N. A. K. Bugbee, 206 East Hanover St., chn.

Pa., Jeanette — High School — Bd. Educ. receives bids in January, building 2 story, 125 x 225 ft., brick and steel, rein.-con. flooring. About $200,000. W. J. Peoples, Monongahela Bank Bldg., Pittsburgh, archt. Noted Aug. 12.

Pa., Johnstown—Church—Hebrew Reform Church, care of E. Rothstein, 246 Main St., plans to build church. About $100,000. Architect not selected.

Pa., Phila.—Bank and Office—Market St. Textile & Trust Co., c/o A. Wilson, Jr., 52nd and Market Sts., having plans prepared by W. L. Blithe, archt., 608 Chestnut St., for 2 story, 90 x 120 ft. addition, concrete, brick and steel. About $100,000.

Pa., Phila.—School—St. Gabriel Roman Catholic Church, 20th and Dickinson Sts., having plans prepared by E. G. Perrot, archt., 801 Parkway Bldg., for 3 story, 38 x 127 ft., brick. About $100,000.

Pa., Pittsburgh — University — Duquesne University, Bluff and Colbert Sts., having preliminary plans prepared by C. Strong, archt., Union Bank Bldg., for new law school, dormitoies, library and chapel. About $1,000,000.

Pa., State College—Clubhouse—Pennsylvania State College plans to build brick clubhouse. About $120,000. Architect not selected.

Pa., Wellsboro—Theatre—O. P. Roberts & Son, Bache Bldg., plan to build 2 story, 75 x 120 ft., rein.-con., brick and steel, on Main St. About $75,000. H. Spann, 52 West Chippewa St., Buffalo, N. Y., archt.

Pa., Williamsport—Y. M. C. A., 343 West 4th St., had preliminary plans prepared by Bldg. Bureau, 347 Madison Ave., New York City, for 8 story, rein.-con., brick and steel, on 4th and Elmira Sts., here. About $450,000. F. A. Messler, genl. secy.

Md., Baltimore—Office—L. Hurwitz, 248 Equitable Bldg., plans to build 8 story, 45 x 200 ft. brick and stone, at 219 Courtland St. About $500,000. J. Freund, 1307 St. Paul St., archt.

Md., Baltimore — School — City soon receives bids building 3 story, 125 x 150 ft., brick and steel, concrete foundation, on 33rd St. and Hillen Rd. About $350,000. C. N. Friz, 2010 Lexington Bldg., archt. C. L. Reeder, Park Ave. and Saratoga St., engr.

D. C., Wash.—Memorial—Knights of Columbus plan to construct 2 story stone memorial building to contain club house and auditorium. About $5,000,000. Maginnis & Walsh, 100 Boylston St., Boston, archts.

N. C., Greensboro—Schools—City election Jan. 18 to vote on $1,000,000 bonds to build and equip schols.

Fla., Miami—Exchange—Southern Atlantic Telephone & Telegraph Co. soon lets contract building 2 story (foundation for 3 story), 80 x 108 ft., concrete and brick, rein.-con. flooring, on 10th Ave. About $100,000.

Miss., Tunica—Court House—Tunica Co. receives bids about Feb. 1, building 3 story, 70 x 84 ft. About $180,000. F. P. Gates Co., archts.

Tenn., Nashville—Memorial—State, City and Davidson Co. plan to construct memorial building facing Capitol. About $2,000,000. Architect not selected.

O., Cincinnati—Theatre—B. Heidingsfeld, agt., 1406 Union Trust Bldg., has obtained option on site on McMillan and Manlose Aves., on which to build 145 x 300 ft. theatre. About $500,000. Owners name withheld.

O., Cleveland—Commercial—The Eighty-sixth Hough Co., c/o F. S. Jones Guardian Bldg., plans to build 3 story 46 x 150 ft. concrete, brick and steel, brick and concrete foundation on Hough Ave. and Crawford Rd. About $150,000. Architect not selected.

O., Cleveland—Commercial, etc.—B. Fenniger, Society for Savings Bldg., plans to construct 2 story commercial building and garage, brick and steel, brick foundation, at 11462 Euclid Ave. About $250,000. Architect not selected.

O., Cleveland — Commercial — Frankel Bros. Co., Guardian Bldg., plans to build 3 story, brick and steel, brick foundation, on East 65th and Euclid Ave. About $150,000. Private plans.

O., Cleveland — Commercial — Gasser Bldg. Co., 1006 Euclid Ave., plans to build 3 story, 67 x 71 ft., brick and steel, brick foundation, on Huron Rd. and East 4th St. About $75,000. Architect not selected.

O., Cleveland—Commercial—LaRoth-Keller Co., c/o H. Laronge, 10405 Parkgate Ave., N.E., plans to build 12 story, 146 x 166 ft., rein.-con., brick and steel, rein.-con. flooring, brick foundation, on West 2d St. and St. Clair Ave. About $1,500,000. Architect not selected.

O., Cleveland — Commercial — Oriental-Amer. Bldg. Co., 1514 Euclid Ave., plans to build 4 story, 47 x 142 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 1618 Euclid Ave. About $150,000. Allen-Osborn Co., Rose Bldg., archts.

O., Cleveland—Commercial—Windsor-East 40th Co., c/o W. J. Lewis, Williamson Bldg., plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 40th St. and Windsor Ave. About $200,000. Architect's name withheld.

O., Cleveland—Office—Cleveland Bar Assn., c/o J. J. Sullivan, Williamson Bldg., plans to build 12 story, rein.-con., brick and steel, rein.-con. flooring, brick foundation. About $1,500,000. Architect not selected.

O., Cleveland—School—Temple Center Congregation, c/o C. C. Colman, archt., 1900 Euclid Ave., having plans prepared for 2 story, 70 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 105th St. and Ansel Rd. About $200,000.

O., Cleveland—Theatre and Office—B. F. Keith Theatre Co., care of Rapp & Rapp, archts, 190 North State St., Chicago, having plans prepared for 21 story, 132 x 300 ft., rein.-con., brick, steel, terra cotta and granite, rein.-con. flooring, concrete foundation, to have 3,600 seating capacity. About $3,500,000. (Bids have been received on structural steel.) Noted Sept. 2.

O., Dayton—Store—J. F. Gallaher, West 3rd St., plans to remodel 4 story, 20 x 180 ft., rein.-con. and brick, on South Main St. About $75,000. Architect not selected.

O., Lakewood (Cleveland P. O.)—Commercial—J. W. Chrisford of Chrisford Constr. Co., Lake Ave., plans to build 3 story brick and steel, brick foundation, on Detroit Ave. opposite Lincoln Ave. About $100,000. Private plans.

O., Maple Heights (Bedford P. O.)—School—City voted $250,000 bonds to build 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. W. M. Blanchard, pres. Architect not selected.

O., Northfield—Home—Central Friendly Inn, c/o A. Cushman, Central Ave. and Bway., Cleveland, plans to build 3 story boys' home, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, here. About $150,000. Architect not selected.

O., Youngstown—Store—Strauss-Hirshberg Co., West Federal St. plans to build 2 story, 300 x 300 ft. About $2,000,000.

Ind., Ft. Wayne—Office and Store—Kilbourne & Perry, Utilities Bldg., having plans prepared by G. Mahurin, archt., 124 West Jefferson St., for 2 story, 60 x 141 ft., brick, rein.-con. flooring. About $90,000.

Ind., Indianapolis—Hotel—Lincoln Hotel Co., Kentucky Ave. and Washington St., having plans prepared by Rubush & Hunter, archts., 430 Amer. Central Life Bldg., for 8 story, 75 x 100 x 100 ft. addition, rein.-con., brick, stone, steel and terra cotta, rein.-con. flooring. About $750,000.

Ind., Ridgeville — School — Township Trustee opens bids about Dec. 20, building 2 story, 7 room, 97 x 124 ft., brick. About $125,000. Bass, Knowlton & Graham, 801 Hume-Mausur Bldg., Indianapolis, archts.

Ind., Terre Haute—Hospital—Union Hospital, 7th and 8th Ave., having plans prepared by Johnson, Miller & Miller, archts., 105 South 7th St., for 6 story, 44 x 200 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation. About $300,000.

Mich., Benton Harbor—Hotel—Washington Hotel & Mineral Bath plans to build 3 story, 200 x 300 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $500,000. A. Bennett and W. Gibb, 117 North Dearborn St., Chicago, archts.

Mich., Detroit—Clubhouse — Fellowcraft Club, c/o F. E. Holmes, 70 Washington Blvd., purchased site and plans to build 3 story, 150 x 207 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 2d Blvd. About $2,000,000. Architect's name withheld.

Mich., Detroit—Temple and Office—Detroit Federation of Labor, c/o F. X. Martel, 77 East Adams St., plans to build 10 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on East High St. Plans for first 2 stories to be made at once. About $300,000. Architect not selected.

Mich., Flint—School—St. Michaels Parish plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring. About $500,000. Architect not selected.

Mich., Ironwood—School—Bd. Educ. receives bids about Dec. 15, building 2 story brick, steel and stone, rein.-con. flooring, concrete foundation. About $150,000. C. J. Anderson, Ironwood, archt.

Mich., Pontiac—Hotel—J. H. Appeldorn, archt. and engr., 224 West 57th St., New York City, preparing plans for brick, steel and stone hotel for women, concrete foundation, here. About $200,000. Owner's name withheld. Noted July 22.

Ill., Alton—Hospital—St. Joseph's Hospital having plans prepared by L. Pfeiffenberger Sons, archts., for hospital. About $300,000.

Ill., Cicero—High School—J. C. Llewellyn, archt., 38 South Dearborn St., Chicago opens bids about Dec. 10, building 2 story, rein.-con. and brick addition, rein.-con. flooring, concrete foundation, for J. Sterling Morton High School, here. About $100,000.

Ill., Elmhurst—Library—Elmhurst College having plans prepared by W. C. Jones, archt., 30 North La Salle St., Chicago, for 1 story, 50 x 100 ft., rein.-con. and brick, concrete foundation. About $75,000.

Ill., Harrisburg—High School—Bd. Educ. opens bids about Jan. 1, building 2 story, 120 x 122 ft., brick and stone, concrete flooring. About $150,000. H. E. Boyle, Furniture Bldg., Evansville, Ind., archt.

Ill., Paris—Hotel—Nicol, Scholer & Hoffman, archts., Lafayette, Ind., opens bids about Jan. 15, building 4 story, 80 x 80 ft., brick, stone and steel, rein.-con. flooring, for Paris Hotel Co., here. About $175,000.

Ill., Urbana—School—A. Bennett, archt., 117 North Dearborn St., Chicago, soon lets contract building 2 story, 50 x 150 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, for 1st Christian Church, here. About $80,000.

Wis., Antigo—High School—Bd. Educ. having preliminary plans prepared for junior high school, 2 story, rein.-con. and brick. About $100,000.

Wis., Beaver Dam—Hospital—Beaver Dam Hospital Assn. plans to build 5 story, 60 x 180 ft., brick, rein.-con. and steel, brick foundation. About $100,000. A. C. Friday, chn. Architect not selected.

Wis., Beloit—Bank—Weary & Alford, archts., 1732 South Michigan Ave., Chicago, opens bids about Dec. 15, building rein.-con., brick and stone, rein.-con. flooring, concrete foundation, for Beloit State Bank.

Wis., Horicon—High School—Bd. Educ. plans to build 2 story, 60 x 185 ft., rein.-con. and brick, concrete foundation, on Main St., to replace one destroyed by fire. About $75,000. Architect not selected.

Wis., Madison—Church—Lutheran Memorial Church, 411 North Lake St., had plans prepared by Claude & Starck, archts., 1-2 Badger Annex, for 3 story, 55 x 125 ft., rein.-con., brick and stone, on University Ave. About $75,000. A. J. Soldan, pastor.

Wis., Manitowoc — Hotel — Manitowoc Hotel Realty Co., having plans prepared by H. B. Kamschulte, archt., North 8th St., for addition, at 825-8th St. S. About $500,000. W. C. Loeggering, Forest Ave. Hotel, 170 Forest Ave. Fond du Lac, interested. Noted July 8.

Wis., Marshfield — Church — Methodist Church, 205 East 3rd St., had plans prepared and receives bids early in spring.

Buildings (Continued)

building 2½ story, 83 x 88 ft., brick, rein.-con. and steel, brick foundation, on 3rd St. About $75,000. F. J. Jordan, chn. W. L. Alban, Endicott Bldg., St. Paul, Minn., archt. Noted Oct. 28.

Wis., Milwaukee—Business—L. Leidersdorf Co., 417 Sycamore St., having plans prepared by Buemming & Guth, archts. and engrs., 521 Jackson St., for 3 story, 50 x 150 ft., mill construction, concrete foundation, on Clybourn St. About $75,000.

Wis., Milwaukee—Hospital, etc.—Milwaukee Childrens Hospital, 219 10th St., having preliminary plans prepared by Scott & Mayer, archts. and engrs., Colby-Abbot Bldg., for rein.-con. and brick hospital and power plant, rein.-con. flooring, concrete foundation, on Grand Ave. About $450,000.

Wis., Milwaukee—Theatre—Rosman & Wierdsma, archts. and engrs., 424 Jefferson St., open bids about Dec. 8, building 1 story, 62 x 120 x 134 ft., concrete and brick, rein.-con. flooring, concrete foundation, on Lisbon Ave., for W. Sarres, Majestic Bldg. About $75,000. Noted Nov. 11.

Wis., Moswill—City Hall and Fire Station—Village Bd. having plans prepared by Oppenhamer & Obel, archts., Wausau, for 2 story, 70 x 140 ft., rein.-con., brick, steel and tile, rein.-con. flooring, concrete foundation, on Main St. About $75,000.

Wis., New London — Church — Lutheran congregation, c/o A. Spiering, 720 Lawrence St., having plans prepared by V. Thomas, archt., 808 South Pearl St., for 2 story, 70 x 85 ft., rein.-con., brick, steel and tile, concrete foundation, on Pearl St. About $75,000.

Wis., Oconto — Clubhouse — B. P. O. E. Lodge, c/o G. Beyer, plans to build 3 or 4 story, 60 x 150 ft., rein.-con., brick and steel, brick foundation, on Main St. About $100,000. Architect not selected.

Wis., Oshkosh—Bank and Office—City Natl. Bank, Main St., having preliminary plans prepared by R. Messmer & Bro., archts., Majestic Bldg., Milwaukee, for 4 story, 60 x 100 ft., concrete and brick, rein.-con. flooring, concrete foundation, on Main St. About $225,000.

Wis., Stevens Point—Hotel—Stevens Point Hotel Co. plans to build 5 story, 217 x 250 ft., brick, rein.-con. and steel, brick, foundation, on Clark and Strong Sts. About $200,000. F. L. Body, secy. Architect not selected.

Wis., Stevens Point—Lodge—Loyal Order of Moose, Lodge No. 1572, 742 Church St., plans to build 3 story, 60 x 120 ft. About $125,000. N. Miller, secy. Architect not selected.

Wis., Superior—Gymnasium—W. J. Little, secy., Bd. Normal School Regents, opens bids about Jan. 2, building 2 story, 150 x 265 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation. About $300,000. Architect and engineer not selected.

Wis., Wausau—Bank and Office—Amer. Natl. Bank, 502 3rd St., plans to build 6 story, rein.-con., brick and stone. About $300,000. C. S. Gilbert, pres. Architect not selected.

Wis., Wausau—Club—Elks Lodge plans to build 3 story, 62 x 115 ft., rein.-con. and brick. About $150,000. O. Eggebrecht, secy.

Wis., Wausau—Hospital—St. Marys Hospital had plans prepared and receives bids in January, building 5 story, 44 x 145 ft., rein.-con. and brick addition, rein.-con. flooring. About $225,000. Oppenhamer & Obel, Wausau, archts.

Wis., Wisconsin Rapids—Store and Office—Nash Hardware Co. having plans prepared by A. F. Billmeyer, archt., Wood Bldg., remodeling and building 2 story, 40 x 100 ft., rein.-con., brick and tile addition. About $75,000. M. Nash, pres.

Ia., Cedar Rapids—Court House—Linn Co. election Dec. 27 to vote on $1,300,000 bonds to build court house. Architect not announced.

Ia., Davenport—Bank—Iowa Natl. Bank, 302 West 2nd St., having plans prepared by Temple & Burrows, archts., 208 Main St., for 8 story, 100 x 100 ft., brick, stone and steel. About $750,000.

Ia., Ft. Dodge—Exhibition—Hawkeye Fair Assn. plans to construct exhibition buildings for automobiles and poultry, also rebuild cattle barn. H. S. Stanberry, secy. Architect not announced.

Ia., Leon—Hospital—Decatur Co. voted $100,000 bonds to build hospital. Architect and engineer not selected.

Ia., Mason City—Home—Cerro Gordo Co. voted $75,000 bonds to build home. P. Weigand, aud. Architect not selected.

Ia., Reinbeck—High School—Bd. Educ. opens bids in January, building 2 story, 90 x 144 ft., brick and stone. About $225,000. Netcott & Netcott, 517-19 Black Bldg., Waterloo, archts. Noted March 25.

Ia., Sioux City — Poorhouse — Woodbury Co. voted $100,000 bonds to build poorhouse. W. M. Britchard, aud.

Minn., Crosby — Church — Swedish Lutheran Congregation having plans prepared by H. S. Swanson, archt., 1st Natl. Bank Bldg., for 2 story, 40 x 72 ft. rein.-con. and brick. About $75,000.

Minn., Minneapolis—High School—State Bd. Control, Capitol Bldg., St. Paul, plans to build 2 story, rein.-con. and brick addition to University High School. About $100,000. D. F. Mullen, secy. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt.

Kan., Pratt — Temple — Mason Bldg. Assn. having plans prepared by S. S. Voigt, archt., 410 Barnes Bldg., Wichita, for 2 story, 48 x 124 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $100,000. Noted Oct. 28.

Kan., Weskan—School—Bd. Educ. having plans prepared by Mann & Gerow, archts., 722 Rorabaugh Wiley Bldg., Hutchinson for 2 story, rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $75,000. H. A. Noble, 411 Reliance Bldg., Kansas City, Mo., engr.

Neb., Pleasanton—School—Bd. Educ. plans to build school. About $90,000. S. A. Eaton, secy. Architect not selected.

Neb., Verdon—School—Bd. Educ. having plans prepared by H. D. Pampel, archt., Kansas City, Mo., for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $75,000.

S. D., Mitchell—Schools—Bd. Educ. had plans prepared by Hugill & Finklehor, archts., Sioux Falls, for two schools, each 2 story, 109 x 150 ft., rein.-con., brick and tile. About $100,000 each. C. F. Tweed, 531 Metropolitan Bank Bldg., Minneapolis, Minn., engr.

Mont., Butte—School—School Dist. 1, Silver Bow Co., defeated $525,000 bond issue Nov. 13, to build school. Noted Nov. 4.

Mo., St. Louis — Church — H. W. Jones, archt., 5940 Easton Ave., receives bids in spring, building 2 story, 60 x 100 ft., ornamental pressed brick and white stone, rock foundation, at 5944 Easton Ave., for West Park Baptist Church, 5940 Easton Ave. About $100,000.

Tex., Beaumont—Auditorium and Library—City plans election to vote on $250,000 bonds to build auditorium and library. G. J. Roark, city mgr.

Tex., Dallas—Cathedral—Scottish Rite of Dallas, South Harwood and Cabell Sts., having plans prepared by H. M. Greene, archt., North Texas Bldg., for 3 story. Cost between $500,000 and $750,000.

Tex., Dallas — Office — See "Industrial Works."

Tex., Dallas—Office—Dallas Athletic Club having plans prepared and receives bids in January, building 10 story, rein.-con., on Elm and Ervay Sts. About $1,000,000. W. E. Greiner, pres. Lang & Witchell, Amer. Exch. Natl. Bank Bldg., archts.

Tex., Waco — Club House — Spring Lake County Club having plans prepared by M. W. Scott & Co., archts., 412½ Franklin St., for 2 story, 88 x 100 ft., rein.-con. and stucco, 5 mi. north of here. About $75,000.

N. B., St. John — School — School Bd. Comn. soon receives bids building 3 story, brick and steel, on Newman St. About $100,000.

Okla., Okmulgee — Hospital — City voted $150,000 bonds to construct new building and addition to present hospital. Architect not selected.

Okla., Picher—High School—Bd. Educ. having plans prepared by Tonini & Bramblett. Archts., 417 Terminal Bldg., Oklahoma City, for 2 story rein.-con. and steel, rein.-con. flooring, brick and concrete foundation. About $100,000.

Col., Boulder—School and Hospital—Bd. of Regents plans to build medical school and state hospital. About $1,500,000. Rockefeller Foundation donated $850,000; donation is based on condition that State Legislature and people provide an additional $800,000 for project.

Col., Denver—Office—W. N. Bowman Co., archts., Central Savings Bank Bldg., preparing plans for 6 story, 125 x 150 ft. physicians building and 2 story garage and filling station, on East 17th Ave. and Bway. About $1,000,000. Owners name withheld. Simm Finance Co., leasee.

Wash., Seattle—Home Service—Salvation Army, Lyon Bldg., having plans prepared by C. Siebrand, archt., Northern Life Bldg., for 3 story, concrete, on 7th Ave. and Pine St. About $130,000.

Wash., Seattle — Office — H. Pederson, Alaska Bldg., having plans prepared by H. Bittman, engr., Securities Bldg., for 4 story, 60 x 108 ft., rein.-con., on 4th and Bell Sts. About $100,000.

Wash., Tacoma—Schools—City election Dec. 7 to vote on $2,450,000 bonds to build and equip schools.

Cal., Bakersfield—Church—First Christian Church having plans prepared by R. H. Orr, archt, Van Nuys Bldg., Los Angeles, for new church, here, brick, Class "C" construction. About $100,000.

Cal., Grossmont—High School—San Diego Co. (San Diego) voted $110,000 bonds to build new union high school here. T. C. Kistner, Central Mortgage Bldg., San Diego, archt.

Cal., Santa Maria—High School—Bd. Educ. having plans prepared by Allison & Allison, archts, Hibernian Bldg., Los Angeles, for high school, here. About $400,000.

Ont., Brantford—Store—Banigan, Armstrong & Thompson, archts., 7 King St. E., Toronto, receives bids in spring, building 3 story, concrete and brick, concrete flooring and foundation, here, for L. R. Steel Co. Ltd., Royal Bank Bldg., Toronto. About $200,000. Noted Aug. 5.

Ont., Kingston—Dormitory—Queens University plans to build women's dormitory. About $150,000. R. B. Taylor, principal. Architect not selected.

Ont., Toronto — Exhibition — Canadian Natl. Exhibition, 38 King St. E., retained Chapman, Oxley & Bishop, Harbor Comm. Bldg., Hynes, Feldman & Watson, 73 King St. W., and Wickson & Gregg, Temple Bldg., archts., to look after buildings and developments and prepare plans for (1) pure food building, (2) British and French government buildings, (3) automobile building, (4) machinery hall, (5) music building, all 1 story, brick and steel. Cost between $2,000,000 and $3,000,000.

BIDS DESIRED

Mass., Needham (Boston P. O.)—School—McNaughton & Robinson, archts., 101 Tremont St., Boston, receiving bids building 2 story, 44 x 160 ft with 40 x 60 ft. ell, concrete, brick and steel, rein.-con. flooring, concrete foundation, for School Comn. About $125,000. Noted Aug. 26.

Conn., Hartford — Hotel — Lockwood, Greene & Co., archts., 60 Federal St., Boston receiving bids building 6 story, brick and steel, rein.-con. flooring, concrete foundation, on Wells St., for Heublein Hotel, 98 Wells St. About $75,000. Noted Nov. 25.

N. Y., Buffalo—Schools—Until Jan. 19, by Bd. Educ., 1401 Telephone Bldg., constructing schools. J. Storer, secy.; advertised in this issue.

Pa., Bethlehem—Hotel—Until Dec. 15, by Ritter & Shay, archts. and engrs., North Amer. Bldg., Phila., constructing 10 story, 116 x 120 ft., brick, steel and stone, for Bethlehem Hotel Corp., c/o Chamber of Commerce. Noted July 29.

O., Cincinnati—School—Until Dec. 13, by Clerk Bd. Educ., building 4 story, 10 room, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Herschel Ave. About $200,000. Bids will be received on one or all of following: (1) excavation, (2) plain and rein.-con. work, (3) cement work, (4) sidewalks, (5) brick masonry. C. W. Handman, 511 West Court St., business mgr.

O., Cleveland—Clubhouse—M. Altschuld, archt., 5116 Woodland Ave., receiving bids building 2 story, 44 x 76 ft., brick and steel, brick foundation, on East 105th St., for Unity Lodge, 926 I. O. O. F., care of N. Sogolovit, 2064 East 55th St. About $75,000.

O., Cleveland Heights (Warrensville P. O.)—School—Until Dec. 21, by Bd. Educ.,

Buildings (Continued)

Lee Rd., building 4 story, 35 x 90 ft., rein.-con., brick and steel addition, rein.-con. flooring, brick and concrete foundation, on Coventry Rd. and Washington Blvd. About $200,000. E. K. Bryan, clk. F. C. Warner, Hippodrome Annex Bldg., Cleveland, archt. Noted Nov. 4.

Ind., Lexington—School—Township Trustees receiving bids building 2 story, 63 x 68 ft., brick, concrete and steel. About $125,000. C. Shopbell & Co., Furniture Bldg., Evansville, archts.

Mich., Detroit—Market—Until Dec. 13, by H. J. Prenzlauer, secy. Pub. Welfare Comn., Detroit City Serv. Bldg., constructing 1 story, brick and steel addition, rein.-con. flooring, concrete foundation, on Russell St. About $75,000. J. Scott & Co., 2326 Dime Bank Bldg., archt.

Ill., Chicago—Bank and Office—Until Dec. 15, by Weary & Alford, archts., 1732 South Michigan Blvd., building rein.-con., brick and stone, rein.-con. flooring, concrete foundation, on 63rd St. and Woodlawn Ave., for Woodlawn Trust & Savings Bank, c/o architects. About $400,000.

Wis., Union Grove—Refectory and Dormitories—Until Jan. 4, by State Bd. Control, Capitol Bldg., Madison, constructing refectory and inmate buildings at Southern Wisconsin Home for Feeble-Minded and epileptic, here. A. Peabody, Madison, state archt. Noted June 24.

Minn., Brainerd—Church—Until Dec. 18, by G. A. Beale, chn. Baptist Church Congregation Com., building 2 story, 75 x 125 ft., brick and steel, rein.-con. flooring, concrete foundation. About $90,000. A. R. Van Dyck, 403 1st Natl. Soo Line Bldg., Minneapolis, archt. and engr.

Minn., Cloquet—Depot—Until Dec. 15, by O. N. Rognan, archt. and engr., Northern Pacific Eng. Dept., St. Paul, building 2 story, 65 x 145 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here, for Northern Pacific Ry., 5th and Jackson Sts., St. Paul. About $85,000.

Minn., Duluth—Jail—Until March 1, by C. F. Naughton, chn. St. Louis Co. Bd., building 3 story, 145 x 190 ft. rein.-con., brick and tile, rein.-con. flooring, concrete foundation, on West 2d St. About $200,000. Architect not selected.

Kan., Emporia—Hospital—Until Jan. 4 by Lyon Co. building 3 story, 43 x 165 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $500,000. J. H. Felt & Co., 802 Grand Ave. Temple, Kansas City, Mo., archts. Noted Aug. 12.

Neb., Dannebrog—School—Bd. Educ. receiving bids building 2 story, 53 x 90 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. W. M. Mampe, 559 Sheidley Bldg., Kansas City, Mo., archt. Noted Sept. 2.

N. D., Jamestown—High School—Until Jan. 2, by Chairman School Bd., building 3 story, 125 x 195 ft., brick and steel, rein.-con. flooring, concrete foundation. About $175,000. Shannon, Boyd & Boyd, Jamestown, archts. and engrs.

Mo., Springfield—High Shools—Until Jan. 1, by Bd. Educ., building three three-story 60 x 7 ft., with 50 x 68 ft. wings, brick and stone, brick foundation. About $200,000 each. Hawkins & Hoerner, McDaniel Bldg., archts. Noted Sept. 30.

Tex., El Paso—Bank—Until Feb. 15, by Weary & Alford, archts., 1732 South Michigan Blvd., Chicago, building rein.-con. and brick, rein.-con. flooring, concrete foundation, here, for 1st Natl. Bank, 1st National Bank Bldg. About $175,000.

Okla., Tulsa—High School—Until Dec. 6, by Bd. Educ., 6th and Cincinnati Sts., building 4 story, rein.-con., steel and brick, rein.-con. flooring, rock foundation. About $800,000. Former bids rejected. G. Winkler, 414 Palace Bldg., archt. Noted Oct. 28.

Que., Montreal—Dance Hall—Jardin de Dance Co., 265 Bleury St., receiving bids building 40 x 150 ft. dance hall, to replace one destroyed by fire. About $100,000. I. W. Maloney, mgr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., New Bedford—School—Bd. Educ. received lowest bid Nov. 22, building P. S. 1 on Rochambeau St., and P. S. 2 on Mt. Pleasant St., each to be 2 story, 170 x 250 ft., brick, steel and concrete, rein.-con. flooring, concrete foundations, from J. W. Bishop Co., 109 Foster St., Worcester, $638,000 each. Noted Nov. 18.

Mass., New Bedford—School—Bd. Educ. received lowest bid Nov. 22, building 2 story, 171 x 184 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Summer, Mill, North and Chestnut Sts., from J. W. Bishop Co., 109 Foster St., Worcester, $519,000. Noted Nov. 18.

★**N. Y., New York**—Office—M. Gold c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., will build 7 story, brick and steel, brick foundation, at 127-131 West 33rd St. About $325,000. Work will be done by day labor under supervision of architects.

★**N. Y., New York**—Office—Wendell Estate, c/o B. H. and C. N. Winston, archts., 2 Columbia Circle, will build 4 story, 58 x 116 ft., brick and stone, brick foundation, at 1900 Bway. About $300,000. Work will be done by day labor under supervision of architect.

★**N. Y., New York**—Office and Store—J. M. Gidding & Co., 5th Ave. and 46th St., let contract building 12 story, brick, steel and stone, concrete foundation, on 5th Ave. between 56th and 57th Sts., to T. J. Murphy, 405 Lexington Ave. Noted Oct. 28.

N. Y., Ossining—Prison—State Prison Bd., Albany, received bids for construction work for addition, here, from G. Colon & Co., 5055 Bway., New York City, $224,892, P. Keeler Bldg. Co., 425 Orange St., $227,200, Carrol Eng. Co., 103 Park Ave., New York City, $309,520; plumbing, from J. J. Kenney Co., 236 West 20th St., New York City, $30,000, Kenny-Moran Co., 33 Old Bway., New York City, $31,000, E. W. Tompkins & Co., 20½ Market St., $43,825; heating, from A. B. Barr & Co., 6 River St., Yonkers, $21,500; Globe Heating Co., 209 Washington Ave., Phila., $22,150, Miller & Brady, 210 East 38th St., New York City, $23,760.

★**N. J., Trenton**—School—St. Marys Greek Congregation let contract building 3 story, 62 x 116 ft., concrete, brick and stone, on Grand St., to Dempsey & Hardy, Trenton. About $168,000.

★**Md., Baltimore**—Office—Standard Oil Co., Pier 2, Pratt St., let contract building 15 story, 90 x 140 ft., concrete, brick and steel, concrete foundation, on Courtland and Franklin Sts., to J. H. Miller Inc., Eutaw and Franklin Sts. About $1,500,000. Noted Oct. 28.

D. C., Wash.—School—Dist. Comrs. received bids building Woodridge-Landgon School, from W. E. Mooney, Evans Bldg., (b) $165,111 (b) add $500, (c) add $35,246 (d) add $17,000 (e) add $34,800 (f) add $5,500 (10 months); E. D. Maxwell, Davidson Bldg., (1a) $168,000 (1b) deduct $336 (1c) add $15,791 (1d) $13,000 (1f) add $5,700 and add $2,433 for heat control (time as spec.); W. P. Lipscomb Co., Dist. Bldg., (1a) $173,300 (1b) deduct $1,500 (1c) $12,495 (1f) add $4,300 (182 days). Noted Oct. 14.

O., Bedford—High School—Bd. Educ. received bids Nov. 13, building 2 story, 115 x 185 ft. rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, from Clemmer & Johnson, Metropolitan Bldg., Akron, $369,000; Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $370,650; R. G. Witters, 1539 Harvard Court, N. W., Canton, $371,000. Noted Oct. 28.

★**Ind., Indianapolis**—Bank and Office—Natl. City Bank, 14-16 East Washington St., let contract building 14 story, brick, steel, limestone and terra cotta, stone foundation, at 112 East Washington St., to Hoggson Bros., 485 5th Ave., New York City. About $1,000,000.

★**Ind., Terre Haute**—Bank and Office—Citizens Trust Co., 612 Wabash Ave., let contract building 12 story, brick, steel and stone, to Hoggson Bros., 485 5th Ave., New York City. About $500,000. Noted Oct. 7.

★**Mich., Detroit**—Office—J. Stroh, 1676 Jefferson Ave., let contract building 18 story, 80 x 100 ft., rein.-con. brick and steel, rein.-con. flooring, concrete foundation, on Adams and Woodward Sts., to Lonquist & Hisley Co., 1100 North Clark St., Chicago. About $1,200,000. Noted June 3.

★**Mich., Gladstone**—Church—All Saints Congregation let contract building 1 story, 60 x 144 ft., brick, steel and stone, rein.-con. flooring, concrete foundation, to A. Arntzen, Escanaba. About $100,000. Noted July 29.

★**Ill., Chicago**—Bank and Office—Federal Reserve Bank, 79 West Monroe St., let contract building 14 story, 160 x 165 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Jackson Blvd. and LaSalle St., to J. Griffiths & Son Co., 112 West Adams St. About $3,000,000.

★**Wis., Milwaukee**—Bank—Amer. Exch. Bank, 144 2nd St., let contract building 2 story, 40 x 90 ft, brick and concrete, rein.-con. flooring, on Mitchell St., to W. G. Kasdorf, 307 Grand Ave. About $90,000. Noted Sept. 16.

★**Ia., Oskaloosa**—Theatre—G. T. Cruze let contract building 2 story, 75 x 150 ft. rein.-con. and brick, to P. W. Sparks, Oskaloosa. About $75,000.

Ia., Pocahontas—Court House—Pocahontas Co. received bids Nov. 23, building 2 story, 80 x 125 ft. brick, rein.-con and stone, from A H Neumann Co., 519 Hubbell Bldg., Des Moines, $354,881; J. A. McDonald Constr. Co., 752 Builders Exch. Bldg., Minneapolis, $364,500; Benson Constr. Co., Court Ave. and East 18th St. Des Moines, $375,952. Noted Nov. 11

★**Ia., Shelby**—School—Ed. Educ. let contract building 2 story, 120 x 190 ft., rein.-con. and brick, to J. E. Wakefield Co., 750 Brandies Theatre Bldg., Omaha, Neb. $149,900 (roughed in work, no interior finish). Noted Oct. 28.

★**Minn., Long Prairie**—High School—Bd. Educ. let contract building 2 story, 75 x 160 ft. rein.-con., brick and stone, to Carlsted Bros., 542 Builders Exch. Bldg., Minneapolis, $86,692. Noted Nov. 11.

★**S. D., Sioux Falls**—Office, etc.—Chicago, St. Paul, Minneapolis & Omaha Ry., 275 East 4th St., St. Paul, Minn., let contract building 2 story, 30 x 236 ft. rein.-con. brick and steel office and freight house here, to G. J. Grant Constr Co., 902 Exch Bank Bldg., St. Paul About $56,000 Noted Sept. 9.

Okla., Enid—Temple—R. W. Shaw, engr., Beck Bldg., received low bid Nov. 15 from Grant & Buxton, Enid, building 100 x 150 ft., rein.-con., steel and brick, for Masonic Temple Assn. Total cost about $325,000 Noted Oct. 28.

Wash., Seattle—Fire Station—City received bids Nov. 19, building 2 story, 120 x 180 ft., concrete and brick, rein.-con. flooring, at 2318 4th Ave., from McRae Bros., Amer. Bank Bldg., $157,486; Hendrickson-Alstrom Co., Builders Exch., $162,860; Rounds Clist Co., Walker Bldg., $163,992 Noted Sept. 16.

★**Man., Winnipeg**—Home—Provincial Government, Parliament Bldgs., let contract building 2 and 3 story, rein.-con., brick and timber, rein.-con. and tile flooring, rock foundation, in Tuxedo Park, to Carter-Halls-Aldinger Co., 515 Union Bank Bldg. About $621,000. Noted Oct. 28.

Federal Government Work

PROPOSED WORK

Me., Bar Harbor—Electric Distribution System—Spec. 4341—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install at Naval Radio Station, Otter Cliff, here.

Me., Bar Harbor—Fire Protection—Spec. 4339—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install fire protection system, at Naval Radio Station, Otter Cliff, here, to include 50,000 gal. steel tank with steel tower, water mains and hydrants; $10 deposit required for plans and spec.

N. Y., Brooklyn—Refrigerating Equipment—Spec. 4282—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install in Building "F," here.

Miss., Vicksburg—Steel Barges—Third Mississippi River Dist., P. O. Box 494, rejected bids received Nov. 5, building 6 steel barges. Noted Oct. 14.

Mo., St. Louis—Earthwork—Mississippi River Comn., 1311 International Life Bldg., rejected bids received Nov. 5, building 1,100,000 cu.yd. earthwork Sny Island D.D. of Illinois. Noted Oct. 7.

H. T., Pearl Harbor—Marine Railway—Spec. 4254—Local Navy Yard, here, received no bids Nov. 17, completing marine railway.

BIDS DESIRED

D. C., Wash.—Electric Towing Locomotives—Until Dec. 22, at office of A. L. Flint, genl. purch. officer, Panama Canal, Wash., D. C., furnishing, here; advertised in this issue.

Ga., Columbus—Refrigeration Building—Until Dec. 20, by Constructing Quartermaster, Headquarters Bldg., Camp Benning, constructing, here; advertised in this issue. Noted Oct. 7.

Federal Government Work (Continued)

Kan., Leavenworth—Motor Repair Building—U. S. Government, Quartermaster Dept., receiving bids constructing 2 story, 100 x 250 ft., rein.-con., brick and steel motor repair building, rein.-con. flooring, concrete foundation. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. Y., L. I., Amagansett**—Buildings—Spec. 4337—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to W. W. Constr. Co., Inc., 51 East 42nd St., New York City, $14,000 (90 days).

★**N. Y., L. I., Amagansett**—Steel Radio Towers — Spec. 4335 — Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building two 150 steel radio towers, here, to Pittsburgh-Des Moines Steel Co., Curry Bldg., Pittsburgh, Pa., $9,540 (160 days). Noted Nov. 11.

★**N. Y., L. I.,—Sayville**—Radio Quarters —Spec. 4311—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to F. G. Fearo Co., Inc., 280 Madison Ave., New York City, $30,860 (85 days). Noted Oct. 28.

★**N. Y., New York**—Electric Traveling Bridge Crane—Spec. 4250—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to A. D. Granger Co., 15 Park Row, $36,555 (150 days). Noted Nov. 18.

N. Y., Oswego—Altering Post Office and Custom House—Treas. Dept., Wash., D. C., received bids Nov 19, altering and repairing, here, from Garber & Cissell, Bethlehem, Pa., $14,500; King Lumber Co., Charlottesville, Va., $21,757; G. E. Wright, Inc., Chicago Ill., $23,700. Noted Oct. 28.

★**Pa., Phila.**—Lumber Storage—H. J. Lumsden, officer in charge of construction, Frankford Arsenal, let contract building 1 story, 80 x 240 ft., concrete and brick lumber storage, on Bridge and Tacony Sts., to M. Melody & Son, 1322 Race St., $26,700. Noted Oct. 21.

★**Del., Wilmington**—Dredging—U. S. Engineer, War Dept., Wash., D. C., let contract dredging in Mispillion River, here, to Delaware Dredging Co., Colonial Trust Bldg., Phila., Pa., $5,440.

★**Va., Quantico**—Fence and Gate—Spec. 4316—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at Marine Flying Field, here, to Cyclone Fence Co., 403 Stock Exch. Bldg., Phila., Pa., $6,929 (60 days). Noted Nov. 25.

Va., Quantico—Incinerator—Spec. 4266—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 24, building here, (1) work complete, from King Lumber Co., Charlottesville, (1) $41,800 (150 days), (1a) $26,450, (1b) $6,953, (1c) $3,400, (1d) $1,300, (1e) $3,700, (2) deduct $1,000, (3) deduct $1,200, (4) add $400; Hyde & Baxter, 1311 G. St., N. W., Wash., D. C., (1) $46,000 (150 days), (1a) $27,200, (1b) $12,000, (1c) $2,900, (1d) $1,200, (1e) $2,800, (2) deduct $1,000, (3) deduct $600, (4) add $500; Newport Constr. & Eng. Co., Silsby Bldg., Newport News, (1) $48,310 (150 days), (1a) $30,310, (1b) $9,800, (1c) $3,400, (1d) $1,400, (1e) $3,400, (2) deduct $1,500, (3) deduct $1,000, (4) add $700. Noted Nov. 11.

Fla, Pensacola — Mooring Mast — Spec. 4314—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 24, building for nonrigid airships at U. S. Naval Air Station, here, (1) work complete, from Carroll Electric Co., 714-12th St., N. W., Wash., D. C., (1) $7,470 (90 days); Terry Mfg. Co., Grand Central Terminal, New York City, (1) $11,485 (90 days); T. and W. Constr Co., 135 William St., New York City, (1) $14,185 (150 days), (3) $1,335 (60 days). Noted Nov. 11.

★**Mo., St. Louis**—Earthwork—Mississippi River Comn., 1311 International Life Bldg., let contract building Kings Lake D.D., to Armstrong Eng. Co., Taylorsville, Ill. About $54,000. Noted Oct. 21.

★**Wash., Puget Sound**—Nurses Quarters —Spec. 4293—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building here, to Swenson & Co., 409 Arcade Bldg., Seattle. Noted Nov. 25.

Cal., San Diego—Quartermasters Storehouse—Spec 4280—Bureau Yards & Docks, Navy Dept., Wash. D. C., received only bid Nov. 24, building at Marine Base, here, (1) work complete, from Hyde & Baxter, 1311 G. St., N. W., Wash., D. C., (1) $231,900, (2) $241,900, (3) $8,715, (4) $9,235, (5) $16,538 (6) $17,546, (7) $237,900, (8) $247,000, (9) $9,125, (10) $9,645, (11) $17,328, (12) $18,338, (13) $4, deduct $0.75, (14) deduct $4,000. Noted Nov. 4.

Cal., San Diego—Quartermasters Storehouse—Spec. 4280—Pub. Wks. Office, here, received bids building at Marine Barracks, Naval Base, (1) work complete, from Lange & Bergstrom, Timken Bldg., (1) $200,407, (2) $211,346, (3) $7,759, (4) $8,299, (5) $15,452, (6) $16,482, (7) $203,997, (8) $214,936, (9) $8,123, (10) $8,663, (11) $16,155, (12) $17,185, (13) add $3.50, deduct $0.90, (14) $3,590; Clinton Constr. Co., 140 Townsend St., San Francisco, (1) $208,210, (2) $218,870. Noted Nov. 4.

Miscellaneous

PROPOSED WORK

Pier—Brooklyn, N. Y.—Dept. Pub. Markets, Municipal Bldg., New York City, plans to build 1,000 ft. pier, on 39th St., here, to be used as market. About $1,500,000.

Piers—New York, N. Y.—Dept. Pub. Markets, Municipal Bldg., plans to build four 1,000 ft. piers, on Gansevoort and West Washington Sts., to be used as markets. About $5,000,000.

Pier—New York, N. Y.—Dept. Pub. Markets, Municipal Bldg., plans to build 1,000 ft. pier, on 150th St. and Harlem River, Bronx. About $1,500,000.

Velodrome—Newark, N. J.—Newark Stadium Co., care of J Eaton, 158 Market St. having plans prepared by Litchfield & Rogers, archts, 477 5th Ave, New York City, for velodrome and athletic field, of 25,000 seating capacity, at 251-811 Frelinghuysen Ave About $250,000.

Stadium—Columbus, O.—Ohio State University retained C. T. Morris, engr., 2043 Iuka Ave, and H. D. Smith, archt., to prepare plans for steel and concrete stadium, to have 83 entrances and 63,000 seating capacity. About $1,000,000. Noted Nov. 11.

Pump, etc.—Albany, Wis.—City received no bids Nov. 12, furnishing 1 centrifugal pump, motor and control apparatus, etc., for waterworks plant. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr. Noted Nov. 4.

Road Machinery—Antigo, Wis.—Bd. Supervs. Langlade Co. appropriated $15,000 to purchase new road machinery during 1921.

Auto Trailers, etc.—Ashland, Wis.—Ashland Co. appropriated $6,500 to purchase 3 auto trailers and loading device. W. E. Dillon, Highbridge, comr.

Road Machinery—Chilton, Wis.—Calumet Co. appropriated $8,000 to purchase road machinery, to include hard steam shovel and three 2 ton trucks. W. Hoenig, comr.

Graders, etc.—Eagle River, Wis.—Vilas Co. appropriated $13,600 to purchase six No. 2 graders and other small machinery. W. F. Hunter, comr

Road Machinery—Eau Claire, Wis.—Eau Claire Co. appropriated $15,000 to purchase road machinery for 1921. G. Osborne, comr.

Road Machinery — Ellsworth, Wis. — Pierce Co. voted $15,000 bonds to purchase machinery, to include 2 trucks and loading outfit. C. F. Kenall, comr.

Patrol and Construction Machinery—Elkhorn, Wis.—Walworth Co. appropriated $16,000 to purchase patrol and construction machinery for highway purposes for 1921. H. J. Peters, comr.

Paving Outfit—Fond du Lac, Wis.—Bd. Supervs. Fond du Lac Co. appropriated $10,000 to purchase complete paving outfit.

Road Machinery—Friendship, Wis.—Adams Co. appropriated $2,000 to purchase road machinery for 1921. J. A. McGregor, Hancock, comr.

Road Machinery—Oshkosh, Wis.—Winnebago Co. appropriated $15,000 to purchase road machinery. J. Binnings, comr.

Road Machinery — Shawano, Wis. — Shawano Co. appropriated $25,000 to purchase road machinery, to include 3 trucks, tractor and loading device W. F. Meyer, comr.

Road Machinery—Sheboygen, Wis.—Sheboygan Co. appropriated $15,000 to purchase road machinery, to include steam roller. G. Ubbelohde, Court House, engr.

Road Machinery—Viroqua, Wis.—Vernon Co. voted $10,000 bonds to purchase road machinery, to include crushers, storage tanks and steam roller. A. Ristow, comr.

Road Machinery—Wisconsin Rapids, Wis.—Wood Co. voted $30,000 bonds to purchase road machinery, to include planers, pile driver, pump and cement mixer. E Morris, comr.

Lake Improvements—Minneapolis, Minn.—City authorized $586,000 bonds to complete improvements at Lake Nakomis, including dredging, building up shore, planting, etc. J. H. Ridgeway, secy. Bd. Park Comrs.

Wharves—Beaumont, Tex.—City plans election to vote on $500,000 bonds to improve wharves, etc., to include building 500 ft. unit of municipal docks and 2 sheds 1 of which will be 400 x 400 ft. for export of lumber. A. B. Steinhagen, mayor.

Plunge—Redlands, Cal. — City having plans prepared by P. E. Hicks, care of City Engineer, for 60 x 100 ft. outdoor plunge, rein.-con. in Sylvan Park, to have 120 dressing rooms.

Culverts—Ontario—Dept. Pub. Highways, Toronto, plans to build concrete culverts in following townships: Guillimbury, West Inisfill, Barrie, Vespra, Oro, Orillia, South and North Rama, Hope, Hamilton, Monaghan, Beckwith, Cavan, Pittsburg, Leeds, Crosby South, Bastard, Kitley, Elmsley South, Drummond, Lanark, Ramsey, Guilbourn, Gloucester, Cumberland, Clarence, North Plantagenet, Alfred, Longueuil, Hawkesbury West and East, Huntley, Ottawa, Nepean, Tyendinaga, Sydney, Charlottenburg, Lancaster, Osnabruck, Cornwall, Elizabethtown, Augusta, Lansdowne. W A McLean, deputy minister

BIDS DESIRED

Filter Sand—Hartford, Conn.—Until Jan 10, by Bd. Water Comrs. furnishing 21,000 yd. filter sand and 12,000 yd. filter sand in filter beds. C. M. Saville, engr.

Laundry Equipment—Brooklyn, N. Y.—Until Dec 15, by State Hospital Comn., Capitol, Albany, for laundry equipment at Brooklyn State Hospital, here. About $25,000. L. F. Pilcher, Albany, state archt.

Laundry Equipment—Hudson, N. Y.—Until Dec. 15, by A. W. Allen, pres. Bd. Mgrs., New York State Training School for Girls, furnishing laundry equipment; advertised in this issue. Noted Nov. 4.

Equipment—New York, N. Y.—Until Dec 9 by M. Hulbert, comr. Docks, Pier "A" ft Battery Pl., North River, furnishing and installing freight handling equipment on pier at foot of East 5th St., East River. Contr. A, cargo beams and fittings; Contr. B, electric work; Contr. C, winches.

Ferryboat—New York, N. Y.—Until Dec 9, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., constructing steel screw ferryboat.

Pier Fender, etc.—New York, N. Y.—Until Dec. 9, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., rebuilding and repairing center pier fender, southeast timber bulkhead and pile clusters, at Greenpoint Ave. Bridge, over Newtown Creek.

Incinerator—Long Branch, N. J.—Until Dec. 14, by Bd. Comrs. City Hall, building incinerator. E. F. Lawyer, clk.; advertised in this issue.

Foundations—Phila., Pa.—Until Dec. 21, by F. H Craven, dir. Pub. Wks., and Bd Trustees, Free Library of Phila., Room 216, City Hall, building foundations for library, on Vine, 19th, Wood and 20th Sts. J. Ashhurst, librarian; advertised in this issue.

Brass Strainers, etc.—Phila., Pa.—Until Dec. 7, by F. H. Craven, dir. Dept. Pub. Wks., Room 216, City Hall, furnishing and delivering brass strainers for Queen Lane filters (Contr. 438); c.i. pipe and specials for Queen Lane Pumping Sta. (Contr. 439); furnishing and installing chlorine apparatus in Belmont filters (Contr. 440); furnishing filter sand at Torresdale filters (Contr. 441); furnishing and delivering steel pipe and specials for Queen Lane Pumping Sta. (Contr. 442); sand pumps for Queen Lane Pumping Sta. (Contr. 443); furnishing w.i. and c.i. pipes, etc. for Torresdale filters (Contr. 444); furnishing and delivering bolts for Queen Lane Pumping Sta. (Contr. 445); electric wiring for 2d Survey Dist. (Contr. 446).

Wire—New Orleans, La.—Until Dec. 14, by Bd. Port Comrs., Suite 200, New Orleans Court Bldg., furnishing rubber covered, weather-proof and bare copper wires; advertised in this issue.

Miscellaneous (Continued)

Water Tube Boilers and Equipment—Milwaukee, Wis.—Until Dec. 17 (change of date), by Sewerage Comn., furnishing and building 4 horizontal water tube boilers and equipment. J. H. Fowles; advertised in this issue. Noted Nov. 25.

Sweeping Machine—Racine, Wis.—City receiving bids for street sweeping machine. P. H. Connolly, City Hall, engr.

Paving Materials—Minneapolis, Minn.—Until Dec. 13, by K. E. Alexander, city purch. agt., City Hall, furnishing 40,000 bbl. Portland cement, 1,770 ton asphaltic cement, 1,000 ton tar, 1,000 ton paving pitch, 2,125,000 vitr. paving bricks, 90,000 sq.yd. yellow pine creosoted blocks 3½ x 8½ x 4 for city improvements, also 15,000 bbl. cement and 1,900 ton tar for Park Bd. use. F. W. Cappelen, city engr.

Motors and Pumps—Sacramento, Cal.—Until Jan. 11, by State Reel. Bd., 853 Forum Bldg., furnishing 3-phase, 60 cycle, 2,300-volt induction motors and low lift vertical centrifugal pumps for Chandler, Tisdale and Wadsworth Pumping Stations, in Sutter Co. T. Mayhew, secy.

Tanks—Montreal, Que.—Royal Duke Refinery Co., 157 St. James St., receiving bids erecting 10 tanks, on Notre Dame St. About $7,000 each.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Seawall—Hull, Mass.—Town let contract building rein.-con. seawall on Grover Ave., to B. Weston, Allerton. About $15,000.

★Pier—Stamford, Conn.—Yale & Towne Mfg. Co., 548 Pacific St., let contract building rein.-con pier, at plant, to Vuona Constr. Co., Bank Bldg. About $15,000.

Electric Equipment—Brooklyn, N. Y.—Bd. Educ., 500 Park Ave., New York City, received bids Nov. 23, installing electric equipment in P. S. 181, on New York Ave. and East 34th St. between Tilden and Snyder Aves., here, from Croker Natl. Fire Prevention Eng. Co., 1270 Bway., $46,685; T. F. Jackson, Inc., 99 John St., $48,000, both in New York City.

Conduits—New York, N. Y.—Fire Dept.—received bids No. 29, furnishing, delivering and installing conduits, etc. completing Contr. 120 of Bates Co.), from Croker Natl. Fire Prevention Co., 1270 Bway., $26,300; Klienschmidt Electric Co., Inc., $39,385.

Dumping Scows—New York, N. Y.—Dept. Street Cleaning, Room 1244, Municipal Bldg., received bids Nov. 23, building 5 dumping scows, from J. Hilderbrant, (a) $309,750, (b) $319,750; J. H. Matthews, (a) $437,250; U. S. Steamship Co., 50 Broad St., (a) $287,280, (b) $298,715. Noted Nov. 18.

Enclosures—New York, N. Y.—Pub. Serv. Comn., 49 Lafayette St., received bids Nov. 19, building inspection shed enclosures in 180th St. Yard, Route 18, from S. S. Jones, 473 West 158th St., $358,565; Nugent Constr. Co., 505 5th Ave., $398,017; Bainbridge Constr. Co., 52 Vanderbilt Ave., $414,171. Noted Nov. 11.

Underground Cables—New York, N. Y.—R. E. Enright, police comr., 240 Centre St., received bids Nov. 29, installing new underground cable and telephone cable on Manhattan Bridge structure between here and Brooklyn anchorages, from F. J. Dougherty, 186 Washington St., $11,985; S. Smyth, Jr., 150 East 41st St., $11,991; Lustig & Weil, 103 Park Ave., $12,151. Noted Nov. 18.

Portland Cement—Detroit, Mich.—Comn. of Purchases & Supplies, Municipal Court Bldg., received bids Nov. 16, furnishing 50,000 bbl. Portland cement in cloth sacks, from Huron & Wyandotte Portland Cement Co., 1524 Ford Bldg., at $3.68 per bbl., total $184,000; H. J. Dickinson Co., 1140 14th Ave., $3.98, $199,000. Wabash Portland Cement Co., 1824 Ford Bldg., bid on 10,000 bbl. at $3.71 per bbl., $37,100. Noted Nov. 11.

Lock and Dam—Chicago, Ill.—F. I. Bennett, dir. Dept. Pub. Wks. & Bldgs., Div. of Waterways, Room 1404, 25 East Jackson Blvd., received bids Nov. 22, building Starved Rock Lock and Dam, on Illinois River, from Thompson-Black & Co., 212 West Washington St., $2,825,000; Bates & Rogers, 37 West Van Buren St., $4,304,000. Noted Oct. 21.

★Foundation — Oconomowoc, Wis.—Oconomowoc Theatre Co., Inc., let contract building concrete foundation for 2 story, 68 x 115 ft. rein.-con., brick and steel theatre and office, on Main St., to J. L. Stanage, 144 Oneida St., Milwaukee, $26,500. Noted Nov. 11, under "Buildings."

★Road Machinery and Gravel Pit Equipment—Sioux City, Ia.—Woodbury Co. let contract furnishing 60 ft. drag line, electrically equipped, to C. Browning Co., 17701 Lake Shore Blvd., Cleveland, O., $24,500; bucket, elevator, screen, settling tanks, centrifugal pump, crusher, car puller, to Bowman Mchy. Co., 1207 Howard St., Omaha, Neb., $17,935; power equipment, engine, generators, switchboard, motors, oil tank, to Fairbanks-Morse Co., 900 South Wabash Ave., Chicago, $20,000. Noted Oct. 21.

★Wheelpits, etc.—Cloquet, Minn.—North West Paper Co., East End, let contract replacing wheelpits and apron and deepening tail race, involving 2,000 cu.yd. concrete and 500,000 ft. timber, to Siems, Helmers & Schaffner, 514 Guardian Life Bldg., St. Paul.

★Fill, etc.—Vancouver, B. C.—Canadian Natl. Ry. let contract filling in False Creek Flats under Main St. bridge, building 2 large sewers through reclaimed area of False Creek, removing Main St. bridge and old buildings and reconstructing electric railway tracks, to Pacific Constr. Co., Ltd., 510 Hastings St. W. About $350,000.

Applications before the Federal Power Commission, Washington, D. C., from September 28 up to and including November 20.

62. A. P. Seybold, 1213 Hobart Bldg., San Francisco, Cal. Preliminary permit for power project — Klamath River and Bluff Creek, Klamath National Forest, Cal.

63. Alaska Endicott Mining & Milling Co., c/o John B. Marshall, Attorney at Law, Juneau, Alaska. Preliminary permit for power project—unnamed stream and lake near the head of William Henry Bay (Lynn Canal), Alaska, for mining.

64. Sespe Light & Power Co., Suite 305, Merchants Trust Bldg., Los Angeles, Cal. Preliminary permit for reservoirs, conduits and power houses—Piru Creek, Santa Barbara National Forest, Cal.

65. William Park Mills, c/o Philip S. Brown, Attorney and Counselor, 607 Montana Bldg., Missoula Mont. Preliminary permit for reservoir, conduit and power house—Vermilion River, Cabinet National Forest, Mont., to supply electricity to mining district in T. 25 N., R. 30 W., M. P. M.

66. Spirit Lake Railway & Power Co., c/o Joseph Roane, President, 110 East 12th St., Vancouver, Wash. Preliminary permit for reservoir, conduit and power house—Toutle River and Split Lake, Columbia National Forest, Wash., for public service timbering and milling, and ore mining.

67. Southern California Edison Co., c/o G. C. Ward, Vice President, Edison Bldg., Los Angeles, Cal. License for dam, conduit, power house and transmission line, Big Creek, Fresno County, Cal., for public utility.

68. Wenatchee Commercial Club, c/o V. H. Clearman, Secretary, Wenetchee, Wash. Preliminary permit for dam and power house, Rock Island and Cabinet Rapids, Columbia River.

69. United Mills Co., c/o H. J. Holbrook, Secretary, Hickory, N. C. Preliminary permit—may be advisable to treat as declaration of intent—for dams, power houses and transmission lines, Harpers Creek, Caldwell County, N. C., for running cotton mill and public utility in Mortimer, N. C.

70. Rock Creek Power Co., c/o John Shaughnessy, President, R. F. D. No. 2, Missoula, Mont. License for reservoir conduit and power house Rock Creek, Granite County, Montana, in Missoula National Forest, for power, lighting, heating, mining, manufacturing and other useful purposes.

71. H. H. Wadsworth, Holbrook Bldg., San Francisco, Cal. Preliminary permit for reservoir, conduit, power house and transmission line, Middle Yuba between Kenaka and Dobins Creek, Tahoe National Forest, for public utility, Sacramento Valley.

72. Southern Sierras Power Co., c/o A. B. West, General Manager, Riverside, Cal. Preliminary permit for three power plants, reservoirs conduits and transmission lines, Convict Creek, Inyo Forest Reserve, Cal., for public utility.

73. J. G. Van Zandt, c/o W. L. Huber, First National Bank Bldg., San Francisco, Cal. Preliminary permit for reservoir, conduit and power house on Bear and Santa Anna Creeks, Cal.

74. Electro Metals Co., a trust—W. G. Devereaux, President, 729 Call Bldg., San Francisco, Cal. Preliminary permit for dam, reservoir, tunnels, penstocks, power house and to divert 300 s.f. from Salmon River for reduction of ores.

75. R. G. McDonald, Williams, Cal. Preliminary permit for two power plants, reservoirs, conduits and transmission lines, Convict Creek, Inyo Forest Reserve, Cal. For use in mines, mills, pumping.

76. J. Harvey Pierce, 4838 Elmwood Ave., Los Angeles, Cal. Preliminary permit for three dams and three power houses—transmission—Mammoth Creek, Inyo Forest Reserve, Mono County, Cal., for mining and lighting.

77. Snow Mountain Water & Power Co., c/o Pillsbury, Madison & Sutro, Attorneys, Standard Oil Bldg., San Francisco, Cal. Preliminary permit for two dams, reservoirs, conduits, and transmission lines, South Eel River, California Forest Reserve, Cal., for public utility.

78. Western States Gas & Electric Co., H. M. Byllesby & Co., Engineers and Managers, Stockton, Cal. Preliminary permit for enlargement of American River Conduit, Summerfield Ditch and right-of-way for transmission lines, South Fork American River, Eldorado National Forest, Cal.

79. William C. Albertson and Stephen L. Mershon — an association, Fort, Hunt & Shipman, Attorneys, Newark N. J. Preliminary permit for dam, power house transmission, Delaware River, at Foul Rift, two miles south of Belvidere, N. J.

80. Amazon Dixie Mining Co., Wallace, Idaho. License to construct transmission line over Lolo National Forest in Missoula County, Mont., for mining operations of the company.

81. Granite Falls Manufacturing Co., A. A. Shuford, Secretary, Granite Falls, Caldwell County, N. C. Preliminary permit for dam and reservoir, conduit, power house and transmission line on Wilson Creek, Caldwell County, N. C., for public utility in Lenoir, N. C.

82. Alabama Power Co., Birmingham, Ala. License for dam, power plant and transmission line, Coosa River at Duncan's Riffle, Ala., for public utility.

83. Paving Granite Quarry Co., Rapid City, S. D. License for transmission line one mile long in Black Hills National Forest Reserve, for power to quarry.

84. Town of Ronan, John P. Swee, Mayor, Missoula County, Mont. Preliminary permit for dam, power house and transmission line on public lands, Crow Creek, Missoula County, Mont., for public utility.

85. Southern California Edison Co. (Salmon Creek Reservoir, Horse Creek Diversion), Edison Bldg., Los Angeles, Cal. License for diversion dam and conduit leading Horse Creek into Salmon Creek. Dam and storage reservoir on Salmon Creek to regulate flow of water to applicants' plants on Kern River, for public utility.

86. John Daniell, c/o Colonial Hotel, Springfield, Mo. License for dam in Current River at Sec. 14 T. 29 N., R 3 W., Shannon County, Missouri.

87. Coast Valleys Gas & Electric Co., c/o Chickering & Gregory, 1232 Merchants Exchange Bldg., San Francisco, Cal. License for transmission line across public lands, from T. 18 S., R. 10 E. to E. 17 S., R. 12 E., San Benito, Cal., for power to quicksilver mines.

88. Merced Irrigation District (a municipality), Merced, Merced County, Cal. Preliminary permit for dam at Exchequer on Merced River for irrigation and power, to sell power to San Joaquin Light & Power Co., and operation of drainage pumps in the Irrigation District.

89. Garland Hydro Electric Power Co., c/o Lemuel Sparkman, 113 Fulk Bldg., Little Rock, Ark. License for two dams and reservoirs and one power house on the Ouachita River near the boundary between Montgomery and Garland Counties, Arkansas, for public utility.

90. Frank G. Baum, 1901 Hobart Bldg., San Francisco, Cal. License for power development on Little Colorado River at Grand Falls—Tolchaco and at Coconino. Both points in Arizona.

91. Frank G. Baum, 1901 Hobart Bldg., San Francisco, Cal. License for power development on Black River, Arizona.

92. W. H. Shrader, 21 East Gonzales St., Pensacola, Fla. Preliminary permit for power development at the U. S. Government dam on the Sunflower River in Washington County, Miss.

93. R. L. Weeks, Major, retired, U. S. Army Recruiting Station, 4th and Main Sts., Los Angeles, Cal. Preliminary permit for power development at Shrimp Bay, Tongass National Forest, Alaska, for power for pulp mill.

94. Alaskan-American Paper Corp., 23 East 26th St., New York City. Preliminary permit for dam and power house at Orchard Lake outlet to Shrimp Bay, Revillagigedo Island, Tongass National Forest, Alaska, for power for pulp mill.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 15	Poughkeepsie, N. Y.	Nov. 18
	Adv. Nov. 18 to Dec. 9.	
Dec. 15	Fall River, Mass.	Dec. 2
Jan. 10	Hartford, Conn.	Dec. 2

SEWERS

Dec. 13	Euclid, O.	Dec. 2
Jan. 5	Lima, O.	Dec. 2
	Adv. Dec. 2 and 9.	
Jan. 11	North Branch, Minn	Dec. 9

BRIDGES

Dec. 13	Nacogdoches, Tex.	Dec. 9
Dec. 14	Winnipeg, Man.	Nov. 25
Dec. 14	Portsmouth, N. H.	Dec. 2
Dec. 14	Preston, Ga.	Dec. 9
Dec. 14	South Dakota	Dec. 9
Dec. 15	South Dakota	Dec. 9
Dec. 17	Detroit, Mich.	Nov. 25
	Adv. Dec. 2 and 9.	
Dec. 17	Phila., Pa.	Dec. 2
Dec. 17	North Carolina	Dec. 9
Dec. 18	Dayton, O.	Dec. 2
Dec. 18	Racine, Wis.	Dec. 2
Dec. 20	St. Thomas, Nev.	Dec. 9
Dec. 21	Morgan, Ga.	Dec. 2
Dec. 22	Elizabeth, N. J.	Dec. 2
	Adv. Dec. 2 and 9.	
Dec 23	Detroit, Mich.	Dec. 2
Dec 23	Detroit, Mich.	Dec. 9
Dec. 28	Wayne, Neb.	Dec. 9
Jan. 6	Miami, Fla.	Dec. 2
	Adv. Dec. 2 and 9.	
Jan. 7	Jacksonville, Fla.	Dec. 2
Feb. 7	Bainbridge, Ga	Nov. 25
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Dec. 13	Bronxville (Yonkers P. O.) N. Y.	Dec. 2
	Adv. Dec. 2 and 9.	
Dec. 13	Merced, Cal.	Dec. 2
Dec. 13	Childress, Tex.	Dec. 2
Dec. 13	Canadian, Tex.	Dec. 2
Dec. 13	El Paso, Tex.	Dec. 2
Dec. 14	South Dakota	Dec. 9
Dec. 14	Michigan	Dec. 9
Dec. 15	Princeton, W. Va.	Dec. 2
Dec. 15	Des Moines, Ia.	Dec. 2
Dec. 15	South Dakota	Dec. 9
Dec. 16	Hampton, Ia.	Dec. 9
Dec. 17	North Carolina	Dec. 9
Dec. 20	Boone, Ia.	Dec. 9
Dec. 20	Louisiana	Dec. 9
Dec. 21	New Mexico	Dec. 2
Dec. 21	Sioux City, Ia	Dec. 9
Dec. 22	Sandusky, Mich.	Dec. 9
Dec. 22	Delaware	Dec. 9
	Adv. Dec. 9.	
Dec. 29	Leavenworth, Kan.	Dec. 9
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 3	La Junta, Col.	Dec. 9
	Adv. Dec. 9.	

Bids Close		See Eng. News-Record
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 6	Missouri	Dec. 9
Jan. 10	Stockton, Kan.	Nov. 18
Jan. 15	Nevada	Dec. 9
Jan. 27	Missouri	Dec. 9
Mar. 1	Ontario	Dec. 2
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Dec. 15	Clarinda, Ia.	Nov. 25
Dec. 16	Hampton, Ia.	Dec. 9
Dec. 20	Wapello, Ia.	Dec. 2

INDUSTRIAL WORKS

Dec. 13	Taunton, Mass.	Dec. 9
Dec. 14	Kinston, N. C.	Dec. 9
Dec. 15	Cleveland, O.	Dec. 9

BUILDINGS

Dec. 13	Lakewood (Cleveland P. O.), O.	Nov. 25
Dec. 13	Cincinnati, O.	Dec. 2
Dec. 13	Detroit, Mich.	Dec. 2
Dec. 14	Hyde Park (Boston P. O.), Mass.	Nov. 25
Dec. 14	Storrs (Eagleville P. O.) Conn.	Nov. 25
Dec. 15	Frederic, Wis.	Nov. 18
Dec. 15	Clear Lake, Wis.	Nov. 18
Dec. 15	Pocahontas, Ia.	Nov. 25
Dec. 15	Wabash, Ind.	Nov. 25
Dec. 15	Bethlehem, Pa	Dec. 2
Dec. 15	Chicago, Ill.	Dec. 2
Dec. 15	Cloquet, Minn.	Dec. 2
Dec. 15	Paducah, Ky.	Dec. 9
Dec. 15	Detroit, Mich.	Dec. 9
Dec. 15	Hartford, Conn.	Dec. 9
Dec. 15	Baltimore, Md.	Dec. 9
Dec. 16	Milwaukee, Wis.	Dec. 9
Dec. 17	Wash., D. C.	Dec. 9
	Adv. Dec. 9.	
Dec. 18	Brainerd, Minn.	Dec. 2
Dec. 20	Phila., Pa.	Dec. 9
Dec. 20	Englevale, N. D.	Dec. 9
Dec. 21	Detroit, Mich.	Nov. 25
Dec. 21	Cleveland Heights (Warrensville P. O.), O.	Dec. 2
Dec. 30	Pocahontas, Ia.	Dec. 9
Jan. 1	Marietta, O.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 18
Jan. 1	Little Rock, Ark.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 25
Jan. 1	Springfield, Mo.	Dec. 2
Jan. 1	Springfield, Mo.	Dec. 9
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Nov. 25
Jan. 2	Duluth, Minn.	Oct 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis.	Nov. 11
Jan. 2	Jamestown, N. D.	Dec. 2
Jan. 2	Ft. Collins, Col.	Dec. 9
Jan. 2	Aitkin, Minn.	Dec. 9
Jan. 3	Ft. Meyers Fla.	Dec. 9
Jan. 3	Pontiac, Mich.	Dec. 9
Jan. 4	Greeley, Col.	Nov. 25
Jan. 4	Emporia, Kan.	Dec. 2
Jan. 4	Union Grove, Wis.	Dec. 2
Jan. 15	Fergus Falls, Minn.	Dec. 9
Jan. 15	Iron Belt, Wis.	Dec. 9
Jan. 15	Prince Frederick, Md.	Dec. 9
Jan. 15	St. Louis, Mo.	Dec. 9

Bids Close		See Eng. News-Record
Jan. 19	Buffalo, N. Y.	Dec. 2
	Adv. Dec. 2 and 9.	
Jan. 19	Buffalo, N. Y.	Dec. 9
Feb. 15	El Paso, Tex.	Dec. 2
Mar. 1	Duluth, Minn.	Dec. 2

FEDERAL GOVERNMENT WORK

Dec. 15	Radio Building—Port Arthur, Tex.	Nov. 25
Dec. 15	Hydraulic Turbine—Florence, Ala.	Nov. 25
	Adv. Nov. 18 to Dec. 9.	
Dec. 15	Gate and Valve Operating Machinery—Louisville, Ky.	Nov. 25
	Adv. Nov. 18 to Dec. 9.	
Dec. 16	Alterations, Repairs, Plumbing, etc.—Covington, Ky.	Nov. 25
Dec. 16	Conduit—Norfolk, Va.	Dec. 9
	Adv. Dec. 2 and 9.	
Dec. 20	Steel Dump Scows—Louisville, Ky.	Nov. 18
	Adv. Dec. 2 and 9.	
Dec. 20	Refrigeration Building — Columbus, Ga.	Dec. 2
Dec. 21	Conduit, Wiring, etc.—Covington, Ky.	Dec. 9
Dec. 22	Electric Towing Locomotive —Washington, D. C.	Dec. 2
Dec. 22	Dumb Waiter—Wichita, Kan.	Dec. 9
Dec. 22	Electric Distribution System—Spec. 4341—Bar Harbor, Me.	Dec. 9
Dec. 22	Separation of Water Drainage System—Washington, D. C.	Dec. 9
Dec. 22	Earthwork—St. Louis, Mo.	Dec. 9
	Adv. Dec. 9.	
Dec. 23	Mechanical Equipment — Wash., D. C.	Dec. 9
Dec. 27	Mailing Vestibule, etc.—Charlotte, N. C.	Dec. 9
Dec. 27	Electric Elevator—Charlotte, N. C.	Dec. 9
Dec. 27	Mailing Vestibule, etc. — Kokomo, Ind.	Dec. 9
	Adv. Dec. 9.	
Dec. 27	Mezzanine Floor—Decatur, Ill.	Dec. 9
Dec. 28	Boiler and Storage House—Woods Hole, Mass.	Dec. 9
Dec. 28	Mailing Vestibule—Corby, Pa.	Dec. 9
Dec. 28	Mezzanine Floor—Charleston, W. Va.	Dec. 9
Dec. 29	Mezzanine Floor—Beloit, Wis.	Dec. 9
Dec. 29	Improving Boiler Plant — Spec. 4252 — Charleston, S. C.	Dec. 9
Dec. 31	Steel Dump Scows—Phila., Pa.	Dec. 9
	Adv. Dec. 2 and 9.	
Jan. 3	Hot Water Piping—Phila., Pa.	Dec. 9
Jan. 7	Dredging—Norfolk, Va.	Dec. 9
Jan. 10	Dredging—New Orleans, La.	Dec 9
	Adv. Dec. 9.	
Mar. 15	Post Office—Joplin, Mo.	Dec. 9

MISCELLANEOUS

Dec. 13	Paving Materials—Minneapolis, Minn.	Dec. 2
Dec. 14	Dock Wall—Buffalo, N. Y.	Nov. 18
	Adv. Nov. 18 to Dec. 9.	
Dec. 14	Incinerator—Long Branch, N. J.	Dec. 2
	Adv. Dec. 2 and 9.	

Bids Close		See Eng. News-Record
Dec. 14	Wire—New Orleans, La.	Dec. 2
Dec. 14	Platform—Phila., Pa.	Dec. 9
Dec. 14	Brick, Cement and Sand—Clayton, Mo.	Dec. 9
Dec. 15	Laundry Equipment—Hudson, N. Y.	Dec. 2
Dec. 15	Laundry Equipment—Brooklyn, N. Y.	Dec 2
Dec. 17	Water Tube, Boilers and Equipment — Milwaukee, Wis. Adv. Dec. 2 and 9.	Dec. 2
Dec. 18	Pumping Machinery—Prince Albert, Sask.	Deec. 9
Dec. 21	Foundations—Phila., Pa. Adv. Dec. 2 and 9.	Dec. 2
Dec. 23	Wharfs and Pier — Phila., Pa. Adv. Dec. 9.	Dec. 9
Jan. 4	Wall—Seneca Falls, N. Y. Adv. Dec. 9.	Dec. 3
Jan. 10	Filter Sand — Hartford, Conn. Adv. Dec. 2 and 9.	Dec. 2
Jan. 11	Motors and Pumps—Sacramento, Cal.	Dec. 2
Jan. 26	Wall—Chesterville, Ont	Nov. 25

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. C., Maiden—Town plans to issue $60,000 bonds to build waterworks system. S. M. Finger, clk.

N. C., Smithfield—Town will sell $40,000 bonds Dec. 20, to extend waterworks and supply system. W. L. Fuller, clk.

S. C., Seneca—City election Dec. 15, to vote on $160,000 bonds to build waterworks and sewerage systems. Jandon Eng. Co., Elberton, Ga., engrs.

O., Carey—City plans to build waterworks system, to include transmission line and distribution system. About $99,000.

Wis., Viroqua—City plans to extend and improve waterworks system, to include additional well, pipe lines, reservoirs, machinery and equipment. About $40,000. Engineer not announced.

Ia., Sioux City—City plans to improve waterworks system, to include laying 10,000 ft. 24 in. water mains. About $45,000.

S. D., Yankton—City voted $70,000 bonds to extend waterworks. J. W. Summers, clk. Noted Nov. 18.

Wyo., Upton—City Council authorized investigation of probable source of water supply in gravel beds near here. If sufficient supply is found available, plans and specifications will be drawn for a new water system, and election called to vote on necessary bonds for project. Engineer not selected but negotiating with Grant, Fulton & Letton, 505 Bankers Life Bldg., Lincoln, Neb. and A. Wilkinson, Newcastle.

Utah — St. George—City voted $60,000 bonds to build waterworks system. Caldwell & Richards, Vermont Bldg., Salt Lake City, engrs.

Cal., San Bernardino—City retained F. C. Finkle, consult. engr., I. W. Heilman Bldg., Los Angeles, to prepare plans for water and power development in Cajon Basin, to include Mathews Lake project, involving 630 in. storage, 1,000 electric hp., cost $733,000; and Vincent Cienega project, involving 590 in storage, 770 electric hp., $767,000.

Cal., Santa Ana—City plans to build reservoir on Santiago Creek, involving construction of concrete dam, 100 ft. high, which will impound 7,000,000,000 gal. of water. Cost to exceed $50,000. W. W. Hoy, Santa Ana, engr.

Ont., Toronto — City plans to purchase filtration plant supplies, cost $113,300; build 20,000,000 gal. reservoir at island, $750,000; air chambers on mains, $55,000; pump for high pressure fire system, $100,000, boilers and generators for Riverdale Sta., $100,000; high level station generator and alterations, $156,000, and extending high pressure fire service in various districts $1,250,000. R. O. Harris, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., New York—Dept. Water Supply, Gas & Electricity, Room 2351, Municipal Bldg., received bids Dec. 6, furnishing, delivering and installing additional discharge lines at 179th St. less Pumping Sta., from Vulcan Rail Constr. Co., $9,986; Beaver Eng. & Contg. Co., 51 Chambers St., $13,405; J. A. Greggory, $14,250. Noted Dec. 2.

★O., Cleveland—H. D. Koblitz, The Arcade let contract furnishing and laying 3,208 ft. 6-12 in. c.i. water main in Coronado Beack subdivision to W. P. Smith, 1350 West 89th St., $15,266.

★Mich., Detroit—Water Bd. will lay 15,670 ft. 6 and 8 in. c.i. water mains in Seven Mile Rd., August, Huston, Trenton, Grotto, Newport, Loretto, Taylor, Lamont, Strong, Bulwer, Fenton, Chalmers and Mound Aves., and 3,050 ft. 24 in. mains in Van Dyke Ave. Work will be done by day labor.

★Tex., Dallas—City will lay water mains in Davis St. from Zangs to Madison Sts.; Madison Ave. from Davis to Beckley Sts.; Rawlins St. from Oak Lawn to city limits; Polk St. from 10th to Center Sts.; Tyler Ave. from Page to Delaware Sts.; Ann St from Parry to Santa Fe Sts.; 2d Ave. from Metropolitan to Carpenter Sts.; Carpenter St. from Oakland to 2nd Aves.; Oakland Ave. from Reeves to Carpenter Sts.; Pear St. from Spencer to Oakland Aves.; Casey St. from Wendelkin to Oakland Aves.; Frank St. from 2nd to Lagow Aves.; Lagow Ave. from Frank to Metropolitan Sts. About $80,000. Work will be done by day labor.

Sewers

PROPOSED WORK

N. H., Manchester—City having plans prepared for reconstructing sewerage system. M. F. Shea, dir. Pub. Wks. L. H. Shattuck, Inc., 208 Granite St., engr.

N. C., Maiden—Town plans to issue $55,000 bonds to build sewerage system. S. M. Finger, clk.

N. C., Smithfield—Town will sell $15,000 bonds Dec. 20, to extend sewerage system. W. L. Fuller, clk.

N. C., Wilson — City plans to extend sewer mains. About $64,000. H. Y. Scott, secy. Chamber of Commerce

S. C., Seneca—See "Waterworks."

O., Cleveland—Fournier Realty Co., West 25th St. and Lorain Ave., receives bids in spring building storm sewers and sewage disposal plant in Spencer Rd. About $20,000. Private plans.

Mich., Ferndale—City having plans prepared for furnishing and laying 2,547 ft. 30-36 in. sanitary sewer in Rockwell Ave. from Bermuda to Farmdale Aves., brick, rein.-con. or segmental block. About $25,000. C. Jerome, 1331 Majestic Bldg., Detoit, engr.

Neb., Hooper — City having plans prepared by Henningson Eng. Co., engrs., 12th and Harney Sts., Omaha, for sewers, manholes, etc. About $50,000. C. H. Dahl, clk.

Mo., Springfield—City opens bids about Jan. 1, building sewers in Dist. 9, Sect. 6, involving 24,490 ft. 8 in. vitr. pipe 17,000 cu.yd. earth trenching, 83 manholes and 8 flush tanks. About $55,000. G. W. Culler, Springfield, engr. Noted Sept. 23.

Col., Boulder—City receives bids about Feb. 1, building 5 mi. 12-54 in. vitr clay and concrete storm sewers in University Hill Storm Sewer Dist. About $158,000. J. Randolph, City Hall, engr.

Ont., Toronto—City plans to build relief sewers in University St. from Bloor St. to Rosedale Creek, cost $230,000; Rosedale Creek from Yonge St. to Don River, $608,000; interseptor for Fort Rouille to Bathurst St., $314,000; Bloor St. $130,000; Jones Ave. and Gerrard St., $159,000. R. C. Harris, city eng.

BIDS DESIRED

Minn., North Branch—Until Jan. 11, by A. Nordstrom, city clk., building 8-12 in. vitr. sewers in various streets. About $30,000. Druar & Milinowski, 512 Globe Bldg., St. Paul, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., S. I., St. George—C. D. Van [illegible], pres. Richmond Boro, received bids [illegible] building temporary sanitary outlet [illegible] in Cromwell Ave., etc., from Lite[illegible] Constr. Co., 280 Madison Ave., New York City, $52,108; Merritt & Chapman, 17 Battery Pl., New York City, $55,498; [illegible] Eng. Co., 30 Church St., New York, [illegible] $62,840. Noted Dec. 2.

★N. J., Trenton—Bd. Freeholders Mercer Co. let contract building vitr. pipe drains in certain sections Brunswick Pike between Clarksville and Middlesex Co. line, to A. DeLucia, 52 Bayard St., $28,412. Noted Nov. 18.

O., East Cleveland (Cleveland P. O.)—City received bid building sewer and culvert in Terrace Rd. between Taylor Rd. and Hastings Ave., involving 630 ft. vitr. pipe and 605 ft. concrete culvert, from T. Marro, Illuminating Bldg., Cleveland, $16,501.

O., Garfield Heights (Cleveland P. O.)—Village received bids Nov. 15, building sewers in (a) East 104th St., Robinson, Russell and Greenview Aves., (b) Shaddock Ave., (c) Edgewark Ave., (d) Garfield Parkway, from Post Constr. Co., 343 The Arcade, Cleveland, (a) $21,249, (c) $2,517; Curro Bros., 12206 Mayfield Rd., Cleveland, (a) $24,119, (b) $11,110, (d) $3,045; N. Iafornaro, 3218 Murray Hill Rd., Cleveland, (b) $10,845; Salem & George Bros., 237 Bradley Court, Cleveland, (c) $2,512, (d) $3,013. Noted Nov. 11.

★Mich., Detroit—City let contract building Michigan Ave. Sewer from Lonyo Rd. to Westfield Ave., to J. A. Mercier, 216 Hammond Bldg., $62,911.

Mich., Detroit—City received bids building 6 Mile Rd. sewer, (a) Sect. 5, from Lumkin to Omira Aves., involving 4,500 ft. 10 ft. 6 in. cylinder, brick, (b) Sect. 6, from Omira Ave. to 3rd St., involving 2,254 ft. 10 ft. 6 in. cylinder and 1,929 ft. 9 ft. 6 in. cylinder, brick, (c) Sect. 7, from 3rd St. to Linwood Ave., involving 7,217 ft. 9 ft. and 8 ft. 3 in. cylinder, brick; from J. Porath, 23 McGraw Bldg., (a) $417,000, (b) $354,114 (c) $285,483; M. Pontatilli, Chicago, (a) $488,000, (b) $428,687; Booth & Flinn, Chicago, (a) $512,500, (b) $449,348; W. Blanck & Co., 827 Ford Bldg., (c) $239,117; R. A. Mercier, 746 Hudson Ave., (c) $286,060. Noted Nov. 18.

★Ia., Williams—City let contract laying 15,681 ft. 8-10 in. vitr. sewer pipe, to Empire Constr. Co., 209 Flynn Blk., Des Moines, $36,909; building sewage disposal plant, to W. E. Weldon, Iowa Falls, $17,369.

Okla., Ada — City let contract building sewers in Dists. 11 and 12, to I. E. Hanson, Ada. About $19,300. Noted Oct. 7.

Bridges

PROPOSED WORK

N. J., West Point Pleasant—State Highway Dept., Trenton, plans to build bridge, here. About $169,780. C. A. Mead, Newark, engr.

North Carolina — State Highway Dept., Raleigh, soon receives bids building 2 rein.-con. deck girder bridges, totaling 760 ft. in length, also one 6 x 6 ft. and two 3 x 3 ft. rein.-con. box culverts, Federal Aid Project 112, Caswell Co., cost $115,000; several small rein.-con. bridges, 20-60 ft. in length and several rein.-con. box culverts, Federal Aid Project 105, Hoke Co., $25,000. W. S. Fallis, state highway engr.

O., Columbus—Ohio State University Trustees receive bids in March building 113 ft. concrete bridge, 32 ft. wide, across Olentangy River. About $135,000. C. T. Morris, Ohio State University, engr.

Ill., Chicago—City plans election in February to vote on $7,500,000 bonds to build bridges across Chicago River on Adams St. and on Van Buren St., also to complete bridges already begun. At later date, Eng. Dept. plans to build bascule bridges over Chicago River at La Salle, Taylor and Polk Sts.

Neb., Omaha — City and Council Bluffs, Ia., plans to build bridge over Missouri River. E. P. Smith, Omaha, mayor. Engineer not selected.

South Dakota — State Highway Dept., Pierre, soon receives bids building 1050 ft. bridge, 16 ft. wide, over Cheyenne River.

Bridges (Continued)

Haakon and Zelback Counties, to have seven 150 ft. pin connected steel spans on concrete piers and abutments, involving 237,000 lb. structural steel, 865 cu.yd. rein.-con. and 1,615 cu.yd. excav., etc. About $108,496. J. E. Kirkham, state bridge engr.

Wash., Seattle—City having plans prepared for vertical lift type bridge over West Waterway on West Spokane St., to have 250 ft. span, allowing 175 ft. clear channel between bridge piers, 58 ft. wide. About $1,500,000. A. H. Dimock, city engr.

Ont., Toronto—City plans to build Gerrard St. Bridge, steel trestle, cost $832,000. R. C. Harris, city engr.

BIDS DESIRED

North Carolina—Until Dec. 17, by State Highway Comn., at Div. office, Greensboro, building bridges on Federal Aid Project 99B, total length 788 ft., Chatham Co., involving 2,203 cu.yd. Class A and 347 cu.yd. Class B concrete, 241,780 lb. reinforcing steel, 3,400 lb. expansion plates and bolts, 390 ft. untreated timber piling, etc. W. S. Fallis, Raleigh, state highway engr. Noted Nov. 25.

Ga., Preston—Until Dec. 14, by W. C. Cave, Jr., div. engr., Americus, building 26 ft. bridge, with rein.-con. deck girder on Preston-Plains Rd., involving 11,000 lb. reinforcing steel for Webster Co. About $10,000.

Fla., Jacksonville—Until Jan. 7, by Jacksonville Terminal Co. and city, building Lee St. viaduct over Jacksonville Terminal yards. Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, Mo., engrs. Noted Aug. 12.

Mich., Detroit—Until Dec. 23, by Dept. Pub. Wks. removing 2 pratt trusses, 119 ft. long, 28 ft. on centers and fabricating and erecting new steel bridge on Howard St. over Michigan Central R.R. tracks. About $55,000. Concrete work will be done by Michigan Cental Ry., 15th St. J. Reid, Muncipal Courts Bldg., engr.

Neb., Wayne—Until Dec. 28, by C. W. Reynolds, clk. Wayne Co., building one 20 ft. slab concrete, 18 ft. roadway, between Sects. 22 and 27, Twp. 25, Range 5, east; one 12 ft. arch concrete, 16 ft. roadway, between Sects. 33 and 34, Twp. 25, Range 1, east; one 32 ft. steel girder, 18 ft. roadway, over Buskirk Slough; one 60 ft. steel span, 16 ft. roadway, 20 ton capacity, over Baker Creek; one 30 ft. I-beam, 16 ft. roadway, 15 ton capacity, across Logan Creek. All bids to be made on both 15 and 20 ton capacity.

South Dakota—Until Dec. 14, by State Highway Comn., Rapid City, and Pierre, constructing bridges on Custer-Hermosa-Rapid City Rd., Federal Aid Project 70, Custer Co., to include one 20 ft. and one 30 ft. concrete beam bridges, one 81 ft. span concrete viaduct one 16 ft. span concrete slab bridge and two 50 ft. span steel pony trusses. About $30,000. F. W. Schreiber, Pierre, state highway engr. Noted Dec. 2

South Dakota—Until Dec. 15, by State Highway Comn., at Div. office, Hot Springs, building one 50 ft. steel pony truss over draw, and one 180 ft. rein.-con. viaduct over Fall River, Federal Aid Project 59, Fall River Co., involving 159 cu.yd. Class A and 113 cu.yd. Class D concrete, 20,307 lb. reinforcing and 89,818 lb. structural steel and 58 cu.yd. structure excav. About $23,-970. F. W. Schreiber, Pierre, state highway bridge engr.

Tex., Nacogdoches—Until Dec. 13, by J. M. Marshall, judge Nacogdoches Co., building steel span bridges, on concrete piers, with wooden flooring and 15 ft. roadways, on State Highway 35, Garrison Rd., involving 562 cu.yd. structural excav., 35,000 lb. reinforcing and 248,120 lb. structural steel, 409.9 cu.yd. Class "A" and 278.1 cu.yd. Class "B" concrete, cost, $48,000; bridges on Highway 21, Douglas Rd. west of here, 1,153 cu.yd structural excav., 23,400 ft. lumber, 68,808 lb. reinforcing and 375,644 lb. structural steel, 571.46 cu.yd. Class "A" and 481.5 cu.yd. Class "B" concrete, $90,-000. L. Acker, co. engr.

Nev., St. Thomas—Until Dec. 20, by C. C. Cottrell, state highway engr., Carson City, building 116 ft. timber truss bridge, over Muddy River, near here, Clark Co., involving 2,200 cu.yd. excav., 300 ft. untreated timber piles, 26,400 ft. timber, etc.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., Goffstown**—Town let contract building concrete bridge with concrete abutments, to L. H. Shattuck, Inc. 208 Granite St., Manchester. About $18,000.

★**North Carolina**—State Highway Comn., Raleigh, let contract building bridge on Federal Aid Project 93, Franklin Co., to Sterns Bros., Statesville, $63,486; bridge on Federal Aid Project 48 B, Northampton Co., to A. C. House, Weldon, $11,460. Noted Dec. 2.

★**North Carolina**—State Highway Comn., Raleigh, let contract building bridges and culverts, Federal Aid Project 117 and 127 Wilson Co., to L. J. Smith Constr. Co., Knoxville, $24,266. Noted Nov. 11.

Mich., Detroit—Bd. Rd. Comrs. Wayne Co., 312 County Bldg., received bids sinking pneumatic caissons through earth to rock, distance approximately 80 ft., furnishing all labor and material except cement for 4 caissons and substructure for double leaf bascule type bridge, (substructure and foundations only, included in this job), from Missouri Valley Bridge & Iron Co., 4th and Walnut Sts., Leavenworth, Kan., $358,360; Foundation Co., 209 South La Salle St., Chicago, $398,325; Dravo Contr. Co., Pittsburg, $466,481. Above bids are based on estimates of cost. Terms include $50,000 sliding scale bonus with $15,000 minimum. Noted Oct. 21.

★**Ia., Nevada**—Story Co. let contract building 150 ft. high truss bridge, 20 ft. roadway, to have two I-beam approach spans, to B. Cole, Ames, $23,462.

Minn., St. Paul—City received bids building concrete bridge on Cherokee Heights Blvd., from McManis & Tarnowski, 484 Endicott Bldg., $15,998; G. J. Grant Constr. Co., 902 Exch. Bank Bldg., $19,450; Lovering & Longbotham, 336 Endicott Bldg., $19,463.

Missouri—State Highway Dept., Salem, received bids Nov. 19, building (1) rein.-con. superstructures at various stations, (2) rein.-con. slab superstructure on Sta. 638 plus 18, (3) rein.-con. slab superstructure on Sta. 443 plus 75, all on State Aid Project S 20.11, Dent Co., from Estes-Williams-Ragsdale, Memphis, Tenn., (1) $14,253, (2) $2,827, (3) $3,032; Genl. Constr. Co., St. Louis, (1) $17,313, (2) $3,362, (3) $3,667. Noted Nov. 11 under "Streets and Roads."

★**Tex., Ft. Worth**—Tarrant Co. let contract building 121 ft. rein.-con. arch bridge, to have four 28 ft. spans and 20 ft. roadway, over Marys Creek, to T. A. Griffin, Seevers St., Dallas, $27,223; including 10% for engineering and contingencies. Noted Nov. 4

B. C., Victoria—City will build substructure for Johnson St. Bridge. About $177,-376. Work will be done by day labor under supervision of F. M. Preston, city engr.

Streets and Roads

PROPOSED WORK

N. Y., Brooklyn—E. Riegelmann, boro. pres., Borough Hall, rejected bids received Nov. 10, regulating and repaving East 16th St. from Ditmas to Newkirk Aves., Nostrand Ave. from Eastern Parkway to Empire Blvd. and Saratoga Ave. from Chauncey St. to Atlantic Ave. Work will be readvertised. Noted Nov. 18.

N. Y., Brooklyn—E. Riegelmann, boro. pres., Borough Hall, rejected bids received Nov. 17, regulating and repaving Corona, Freeman, Jay Starr, 53rd and 82nd Sts., Kingsland and Nostrand Aves. and Liberty St. Plaza, permanent asphalt on concrete foundation. Work will be readvertised. Noted Nov. 11.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., rejected bids received Aug. 31, regulating and repaving area between parkways on Delancey St. at intersections of Norfolk and Suffolk Sts. Noted Aug. 26.

N. Y., New York—Park Comrs. rejected bids received Nov. 24, repaving Riverside Park, with asphalt mastic. Noted Dec. 2.

North Carolina—State Highway Comn., Raleigh, having plans prepared for 23⅞ mi. road from Elizabethtown to Bladen-Cumberland Co. line, Federal Aid Project 120, Bladen Co., involving 45 acres clearing and grubbing, 56,600 cu.yd. common excav., 182 cu.yd. Class "B" concrete headwalls, 55,000 sq.yd. topsoiling, three 30 ft. rein.-con. bridges, etc., cost $103,000; grade, drain and sand-clay surface 16.7 mi. road between Hamlet and Moore Co. line, Federal Aid Project 129, Richmond Co., $100,000. W. S. Fallis, state highway engr.

North Carolina—State Highway Comn., Raleigh, having plans prepared improving 20.3 mi. road between Edenton and Chowan-Gates Co. line, 30 ft. wide, Federal Aid Project 104, Chowan Co., involving 17 acres clearing and grubbing, 81,290 cu.yd. common excav., 39 cu.yd. Class B concrete, 106,910 sq.yd. concrete paving, 32,000 ft. ditches, 40 rein.-con. box culverts and 6 small rein.-con. bridges. About $416,000. W. S. Fallis, state highway engr.

N. C., Burgaw—Comrs. Pender Co. soon receive bids surfacing, grading and draining 20 mi. sand clay road from Still Bluff, via Greens Ferry to Kellys Cove, also building causeway approach to Black River. J. Henry, chn.

N. C., Durham—Comrs. Durham Co. plan to build belt line of sand clay roads around city, also resurface various old macadam roads, probably bituminous treatment. A. P. Carlton, chn.

N. C., Pine View—Johnsonville Twp. plans to grade, drain and surface road. About $40,000. W. H. Johnson, chn. Rd. Comn.

N. C., Wilson—City plans to grade, drain and pave various streets. About $466,000. H. Y. Scott, secy. Chamber of Commerce.

Fla., Bradentown—Comrs. Manatee Co., voted $150,000 bonds to build 25 mi. brick or asphalt road from here to Cortez and down Beach to Anna Maria, with bridge over Cortez Pass.

Fla., Gainsville—Alachua Co. sold $310,-000 bonds to build roads. State and Federal Government have been asked to appropriate like amount.

Fla., Key West—City sold $100,000 bonds to pave streets and $50,000 bonds to build and improve sidewalks.

Fla., Marianna—Comrs. Jackson Co. and State Highway Highway Dept., Tallahassee, plan to build 35 mi. highway from Calhoun Co. line to Alabama state line, passing through here, 14 ft. wide, bituminous macadam or asphaltic concrete. About $500,000. C. M. Brown, state highway engr.

Fla., White Springs—City voted $25,000 bonds to pave 1¾ mi. Main St., 16 ft. wide, brick or asphalt.

La., De Quincy—De Ridder Co. soon receives bids building 4½ mi. concrete sidewalks on various streets. About $50,000. F. Shutte & Sons, Lake Charles, engrs.

O., Cleveland—City receives bids in spring, grading, draining, curbing and paving with brick on concrete base, Sylvia Ave. between East 140th and East 152nd Sts., cost $63,678; Eaglesmere Ave. between East 133rd and East 140th Sts., $38,485. R. Hoffman, 618 City Hall, engr.

O., Columbus—Franklin Co. plans to grade, build bridges and culverts and pave 3½ mi. Lane Ave., 18 ft. wide, bituminous macadam, cost $83,000; 2 mi. Sawmill Rd., 16 ft. wide, waterbound macadam, $37,000; 3 mi. Courtright Rd., 16 ft. wide, waterbound macadam, $74,000. C. C. Lattimer, co. engr.

O., Columbus—Franklin Co. plans to grade, build bridges and culverts and pave 6½ mi. Lockbourne Rd., 16 ft. wide, Hamilton Twp., 5½ mi. Hayes Rd., 16 ft. wide, Hamilton and Madison Twps., 8½ mi. Morse Rd. from Harbor to Reynoldsburg Rds., 16 ft. wide, 5 and 6 in. waterbound macadam; 3½ mi. Lee Rd., 16 ft. wide, Plain Twp., 4 and 5 in. waterbound macadam; 4½ mi. Babbitt Rd., 16 ft. wide, Plain Twp., 3 mi. Stygler Rd., 16 ft. wide, Mifflin Twp., waterbound macadam; grade and pave ½ mi. Denune Ave., 16 ft. wide, 4 and 5 in. waterbound macadam. C. C. Lattimer.

O., Idlewood (Cleveland, P. O.)—Village receives bids in spring building cement or stone sidewalks on Sisiby Rd. from Taylor to Warrensville Rds. About $15,000. F. A. Pease Eng. Co., 804 Marshall Bldg., Cleveland, engrs.

Streets and Roads (Contiaued)

Michigan—State Highway Dept., Lansing, soon receives bids for base course gravel on following roads: 3 mi. State Trunk Line Rd. 63-2, Osceola Co.; 3½ mi. Rd. 13-11, Sect. B, Charlevoix Co.; 3 mi. Rd. 24-3, Newaygo Co.; 2½ mi. Rd. 24-4, Sect. A, Newaygo Co.; 5 mi. Rd. 39-2, Ionia Co.; 10 mi. Assessment Dist. Rd. 352, Ionia Co.

Wis., Beloit—City plans to pave Central Ave. from Hubbard to Keeler Sts., Chapin St. from Church to College Sts., Clary St. from Pleasant to Wisconsin Sts., College Ave. from Bushnell to Clary Sts., Eaton Ave. from White to Partridge Sts., Elm St. from Merrill to Liberty Sts., 11th St. from Portland to Liberty Sts., Euclid Ave. from Hackett to Moore Sts., Gerald Ave. from Park to Wisconsin Sts., Hubbard Pl. from Wisconsin to Central Sts., Keeler St. from Prairie to Eaton Sts., Oak St. from St. Lawrence to Liberty Sts., Park Pl. from Church to Eclipse Sts., Partridge Ave. from White to Strong Sts., Portland Ave. from 4th to Lincoln Sts., Strong Ave. from Prairie to Partridge Sts., Woodward Ave. from Wisconsin to Central St., to include 4.2 mi. pavement, laying 1,130 ft. water mains, 600 ft. gas mains, 100 sewer laterals, 18 water laterals and 40 gas laterals. B. E. Wood, city clk.

Wis., Madison—Dane Co. voted to gravel following roads in 1921: Mazomanie-Black Earth Rd., town of Black Earth, cost $16,000; Madison-Cambridge Rd., Blooming Grove, $15,000; Sun Prairie-Columbus Rd., Bristol, $9,000; Madison-Cambridge Rd., Christiana, $7,200; Madison-Cambridge Rd., Deerfield, $10,800; Mazomanie-Black Earth Rd., Mazomanie, $4,000; Marshall-Waterloo Rd. Medina, (including village of Marshall), $10,000; Madison-Sauk City Rd., Middleton, $3,750; Madison-Sauk City Rd., Roxbury, $13,000; Stoughton-Oregon Rd., Rutland, $16,000; Verona-Belleville Rd., Springdale, $9,000; Madison-Lodi Rd., Vienna, $8,000; Madison-Lodi Rd., Westport, $4,000; Sun Prairie-Columbus Rd., York, $9,000. F. M. Lipke, co. highway comr.

Wis., Waunakee—City plans to grade, pave, curb and gutter 1.1 mi. Main St., 16 ft. wide, 2 course rein.-con. Cost between $25,000 and $30,000. Engineer not selected.

Minn., Grand Rapids—Bd. Comrs. Itasca Co. receives bids about Jan. 10 building 20 mi. road out of here. About $250,000.

Minn., Hastings—Dakota Co. plans to issue $250,000 bonds to build roads during 1921. C. L. Methven, Hastings, engr.

Minn., Sleepy Eye—City soon receives bids paving 25 blocks various streets. About $100,000. J. W. Shaffer & Co., 917 New York Life Bldg., Minneapolis, engrs.

Minn., Wadena—City receives bids about Jan. 1, paving 16 blocks various streets. About $150,000. J. W. Shaffer, 917 New York Life Bldg., Minneapolis, engrs.

S. D., Deadwood—Comrs. Lawrence Co. plan to grade Boulder Canyon Highway from here to Whitewood. About $50,000.

Missouri—State Highway Dept., Salem, received no bids Nov. 19, building 10.5 mi. East State Rd. from Salem westward, 24 ft. wide, State Aid Project S. 20.11, Dent Co. About $24,634. Noted Nov. 11.

Mo., Fulton—Calloway Co. had plans prepared for grading, relocating and building bridge on 1 mi. Mexico-Fulton Rd., 12 ft. wide. About $41,407. W. P. Diver, Fulton, engr.

Mo., Liberty—Clay Co. plans to pave 10.6 mi. Kansas City-Liberty Rd., bituminous macadam. About $230,000.

Tex., Lufkin—Angelina Co. having plans prepared grading, surfacing and building steel bridges and timber trestles on 8 mi. Highway 35 from here to Nacogdoches Co. line, involving 64 acres clearing and grubbing, 80,000 cu.yd. earth excav., 250 cu.yd. rein.-con., 16,000 cu.yd. gravel, 1,000 lin.ft. timber trestle and 40,000 lb. structural steel. About $96,250. L. Acker, Nacogdoches, engr.

Tex., Waco—City voted $100,000 bonds to improve various streets. H. R. Seward, city engr.

Tex., Waco—McLennan Co. having plans prepared surfacing 5.16 mi. Highway 7 from here to Tehuacana Creek, involving 45,400 sq.yd. bituminous macadam, 45,400 sq.yd. cover material, 2,028 cu.yd. gravel, 22,703 gal. asphalt. About $26,291. M. Hannah, co. engr.

Tex., Waxahachie—Ellis Co. had plans prepared and soon receives bids grading, surfacing and draining 11.82 mi. Exall Highway 14, involving 37,219 cu.yd borrow and 17,617 cu.yd. earth excav., 31,195 cu.yd. gravel, 36,284 lb. reinforcing steel, 433.65 cu.yd. 1:2:4 and 86.65 cu.yd. 1:2½:5 concrete. About $266,205. G. H. Edwards, Ennis, engr.

Col., Boulder—City had plans prepared paving University Hill Dist., involving 43,000 qu.yd. asphalt on concrete base. About $227,000. J. Randolph, City Hall, engr.

Col., Boulder—City receives bids about Feb. 1, tearing up and repaving streets in business section, involving 53,500 sq.yd. asphalt on concrete base. About $241,000. J. Randolph, City Hall, engr.

Col., Manitou—Town receives bids latter part of January paving all cross streets intersecting Manitou Ave., bitulithic or concrete, cost $40,000; Manitou Ave. from Deer Path to Ruxton Aves., bitulithic or concrete $50,000. Wieland Eng. Co., Pueblo, engrs.

Idaho, Burley—City plans to curb, gutter and pave sidewalks, in Impvt. Dist. 20. About $85,000. E. D. Davis, clk.

Wash., Seattle—Comrs. King Co. plan to pave 10 mi. highway around Lake Washington. About $350,000.

California—State Highway Comn., 514 Forum Bldg., Sacramento, soon receives bids constructing 2 mi. old county highway, 20 ft. wide, near Goleta, Santa Barbara Co., 6 in. concrete. Cost exceeds $10,000. A. B. Fletcher state highway engr.

Cal., San Diego—Common Council having plans and specifications made for paving West Point Loma Blvd., Voltaire, Abbott and Defoe Sts., Newport and Point Loma Aves., total length 25,680 lin.ft. F. A. Rhode, city engr.

Cal., Santa Monica—City plans to pave, curb and build sidewalks on various streets. Plans include improving of 7th St. from Delaware to Colorado Aves. About $185,000. J. A. Morton, city engr.

BIDS DESIRED

Delaware—Until Dec. 22, by State Highway Dept., Dover, constructing 4.51 mi. state highway from St. Georges to Tybouts Corner, Castle Co., Contr. 33; advertised in this issue.

North Carolina—Until Dec. 17, by State Highway Comn., at Div. office, Greensboro, improving 3.72 mi. road between Mt. Gilead and Wadeville, Federal Aid Project 33, 16 ft. wide, Montgomery Co. W. S. Fallis, Raleigh, state highway engr. Noted Nov. 25.

North Carolina—Until Dec. 17, by State Highway Comn., at div. office, Greensboro, improving 1¾ mi. road from Richardson Creek Bridge via Monroe, to Benton Heights, Federal Aid Project 39, 16 ft. wide, Union Co., involving 17,710 sq.yd. cement concrete base and header course, 20,070 sq.yd. 2 in. Topeka surfacing, 3,330 cu.yd. common excav. and reshaping old macadam, and 356 tons crushed stone. W. S. Fallis, Raleigh, state highway engr. Noted Dec. 2.

Louisiana—Until Dec. 20, by State Highway Dept., Maison Blanche Bldg., New Orleans, gravel surfacing roads in Bienville, Caddo, De Soto, Richland and other parishes. About $4,000,000.

Louisiana—Until Dec. 20, by Bd. State Engrs., 332 Maison Blanche Annex Bldg., New Orleans, building 3.75 mi. Shreveport-Arkansas Line Highway, and 5.75 mi. Shreveport-Mansfield Highway.

Michigan—Until Dec. 14, by State Highway Dept., at dist. office, Kalamazoo, building Federal Aid Project 32, Allegan Co. Work involves 16,000 cu.yd. beach gravel.

Mich., Sandusky—Until Dec. 22, by State Highway Dept., at office Bd. Rd Comrs. Sanilac Co., grading, draining and surfacing 5.526 mi. State Trunk Line Rd. 19-2 Sect. A., involving 20,161 cu.yd. excav., 51,801 sq.yd. gravel or stone gravel surface, etc.

Ia., Boone—Until Dec. 20, by Comrs. Boone Co., hauling and placing gravel on 13.69 mi. country roads, involving 20,530 cu.yd. gravel. J. A. Illeman, engr.

Ia., Hampton—Until Dec. 16, by [illegible] Franklin Co., improving 10.57 mi. involving 50,925 cu.yd. excav. and [illegible] lin.ft. 6 in. tile. F. S. Currie, Hampton.

Ia., Sioux City—Until Dec. 21, by [illegible] Woodbury Co., improving 16.37 mi. involving 188,236 sq.yd. paving, 66,[illegible] yd. excav., 1,980 lin.ft. 6-12 in. tile. H. L. Taylor, Sioux City, engr.

Kan., Leavenworth—Until Dec. [illegible] Leavenworth Co., grading, building cu[illegible] and bridges on 3.044 mi. Fort to Ferry [illegible] way. Sec. A and B, Federal Aid P[illegible] 52, 18 ft. wide. About $85,000. [illegible] Clark, Leavenworth, engr.

South Dakota—Until Dec. 14, by State Highway Comn., at Rapid City and P[illegible] grading and constructing drainage structure on 11.96 mi. Custer-Hermosa-[illegible] City Rd., 36 ft. wide, Federal Aid Project 70, Custer Co., involving 5,099 cu.yd. [illegible] rock, 4,283 cu.yd. loose rock and 111[illegible] cu.yd. common excav., 32,098 yd. sta. [illegible] haul of excav., 335 cu.yd. Class A and [illegible] cu.yd. Class B concrete, 25,500 lb. reinforcing steel, 1,990 lin.ft. 15-36 in. corrugated iron or concrete pipe, etc. About $132,[illegible] F. W. Schreiber, Pierre, state highway engr. Noted Dec. 2.

South Dakota—Until Dec. 15, by State Highway Comn., at Div. office, Hot Springs, grading, draining and graveling 5.51 mi. Hot Springs-Oelrichs Rd., Federal Aid Project 59, Fall River Co., involving 26,146 cu.yd. solid rock, 4,435 cu.yd. loose rock, 57,049 cu.yd. earth and 574 cu.yd. structure excav., 2,409 cu.yd. cement rubble masonry, 1,159 yd. gravel surfacing, 522 cu.yd. Class A, 87.3 cu.yd. Class B and 38 cu.yd. Class D concrete, 42,976 lb. reinforcing steel and 16,555 ft. lumber. About $190,000. F. W. Schreiber, Pierre, state highway engr. Noted June 10.

Missouri—Until Jan. 6, by State Highway Dept., Warsaw, building 3.19 mi. Warsaw Rd., State Aid Project S. 20.16, Benton Co., involving 14,834 cu.yd. earth and 1,289 cu.yd. rock excav., 120.7 cu.yd. Class "B" and 6.4 cu.yd. Class "C" concrete masonry, 8,390 lb. reinforcement for concrete masonry, etc. About $20,623. Noted Dec. 2.

Missouri—Until Jan. 27, by State Highway Dept., Kingston, building 3.57 mi. Kingston-Richmond Rd., State Aid Project S. 20.22, Caldwell Co., involving 16,704 cu.yd. earth excav., 3,262 cu.yd. borrow, 88.6 cu.yd. Class "B" and 19.8 cu.yd. Class "C" concrete masonry, 7,379 lb. reinforcement for concrete masonry, etc. About $20,161. Noted Dec. 2.

Col., La Junta—Until Jan. 3, by city, for paving in Dist. 1. Bids will be received on concrete, asphaltic concrete or bitulithic. S. W. Brown, clk.; advertised in this issue.

Nevada—Until Jan. 15, by State Highway Dept., Carson City, surfacing 15 mi. state road from Halleck to Elko, 20 ft. wide, Elko Co., involving 35,000 cu.yd. gravel surfacing, etc. C. C. Cottrell, state highway engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Massachusetts**—State Dept. Pub. Wks., Div. Highways, Boston, let contract paving 7,500 ft. state road between Southwick and Westfield, 2 in. bituminous macadam, on stone foundation, to Lane Constr. Corp., 37 Colony St., Meriden, Conn., $33,760. Noted Dec. 2.

Rhode Island—State Bd. Pub. Rds., State House, Providence, received bids Dec. 1, reconstructing section state highway in Town of Scituate, beginning ½ mi. east from village of North Scituate and extending west from Danielson Pike for distance of 5 mi., from Powes Bros., North Montello St., Brockton, Mass., $158,857; Susi Bros. & Co., Boston, $160,051; E. Perini & Son Inc., Ashland, Mass., $169,149. Noted Nov. 18.

New Jersey—State Highway Comn., Trenton, received bids Dec. 1, grading Route 3, Ancora-Atco Sect., Camden Co., involving 15,349 cu.yd. excav. and 13,418 cu.yd. extra embankment, from Weldon Contg. Co., Broad St., Westfield, $56,883; J. H. Hurley, 153 East Front St. Trenton, $63,753; Seaman, Latzkuf & Smith, Pleasantville, $78,658. Noted Nov. 18.

★**N. C., Bentonville**—Bentonville Twp. let contract grading, draining and surfacing road, sand clay, to P. R. Ashby, Raleigh. About $30,000.

Streets and Roads (Continued)

★**N. C., Nashville**—Town let contract curbing, guttering and paving various streets with 2 in. Warrenite bitulithic on 5 in. cement concrete base, to R. G. Lassiter & Co., 327-33 Monticello St. Arcade Bldg., Norfolk. About $125,000. Noted Sept. 16.

★**Ga., Albany**—Dougherty Co. will build 2½ mi. Dixie Highway, by day labor. Contract for top dressing oil asphalt let to Early Constr. Co., Augusta. Total cost $100,000.

★**Louisiana**—State Highway Dept., New Orleans, let contract gravel surfacing 35.01 mi. road in Claiborne Parish, to Davis & Younger, 407 Grain Exch. Bldg., Oklahoma, Okla., $350,000.

★**Michigan**—State Highway Dept., Lansing, let contract grading, draining and surfacing State Trunk Line Rd. 72-2, Alcona Co., to L. W. Edison, Lincoln. Work involves 27,937 cu.yd. excav., $0.67 per cu. yd.; 29.2 cu.yd. 1:2:4 concrete, $25; 69.5 cu.yd. 1:3:6 concrete, $24; 47,182 sq.yd. gravel surface, $0.78, etc., total cost $62,-495.

★**Ill., Lockport**—City let contract building asphaltic concrete pavement on Hamilton St., to R. F. Conway Co., 133 West Washington St., Chicago, $215,902. Noted Nov. 25.

★**Ia., Des Moines**—Polk Co. let contract graveling 8 mi. Granger Rd., 24 ft. wide, to E. L. Hughes, Des Moines, $0.74 and $0.44 per yd.

★**Ia., Hampton**—Franklin Co. let contract graveling road 8½ mi. west of Chapin and 1½ mi. on county road east of Geneva, 24 ft. wide, to R. E. Carr, Ames, $17,000.

★**Ia., Kimberly**—City let contract for 9,350 sq.yd. Warrenite-bitulithic pavement on 4 in. crushed rock foundation, and 13,-200 sq.yd. Warrenite-bitulithic pavement on 3 in. crushed rock foundation, to Warren Constr. Co., Journal Bldg., Portland, Ore.

★**Ia., Le Mars**—Plymouth Co. let contract grading 20 mi. road from Merrill to Cherokee Co. line, 24 ft. wide, to A. L. Cook, Ottawa, Kan., $0.45 per cu.yd.

★**Ia., Webster City**—Hamilton Co. let contract grading 11 mi. Grant Highway east of here, 24 ft. wide, to C. A. Barnes, 323 5th St., Des Moines. About $35,000.

★**Kans., Salina**—Saline Co. let contract grading 1.989 mi. road, 18 ft. wide, to W. B. Stingley, Manhattan, $10,968; building culverts, to J. W. Norton, Salina, $8,898. Noted Oct. 21.

★**Mont., Billings**—Comrs. Yellowstone Co., let contract building 3 mi. Federal Aid Project 124, between Mason and Laurel, 24 ft. wide, to A. Carlson, Columbus, $35,080. Noted Oct. 14.

★**Tex., Ballinger**—Runnels Co. let contract grading, surfacing and draining 5.76 mi. Ballinger-Abilene Rd., to E. Shelton, Ballinger, $39,573, including 10% for engineering and contingencies. Noted Nov. 11.

Tex., Brownsville—Cameron Co. received bids grading, surfacing and draining 5.93 mi. Highway 12, Harlingen-San Benito Rd., from W. T. Montgomery, Alamo Bank Bldg., San Antonio, $58,028; Fitch Constr. Co., Brownsville, $70,132. Work involves 10 acres clearing and grubbing, 80 cu.yd. concrete, 60,000 lb. reinforcing material in pavement, 15,000 cu.yd. stone, gravel and sand, 43,500 sq.yd. concrete pavement, 39,-100 cu.yd. earth and 60 cu.yd. structural excav., etc.

Tex., Brownsville—Cameron Co. received bids grading, surfacing and draining 4 mi. Highway 12, from here to Olmito, from W. T. Montgomery, Alamo Bank Bldg., San Antonio, $37,547; Fitch Constr. Co., Brownsville, $46,652. Work involves 90 acres clearing and grubbing, 3,700 lb. reinforced material in pavement, 10,000 cu.yd. crushed stone, sand and gravel, 18,603 cu. yd. earth, 550 cu.yd. dry and 570 cu.yd. wet structural excav., 520 cu.yd. Class "A" and 200 cu.yd. Class "B" excav., etc.

Tex., Center—Shelby Co. received bids grading, surfacing and draining 35.5 mi. Highway 22 from San Augustine Co. line to Louisiana State Line, from Smith, Harralson & Welling, Houston, $232,129, cash basis; Smith Bros., Crockett, $319,410, par on bonds and accrued interest; H. F. Bland, San Augustine, $312,068, par on bonds. Work involves 144,031 cu.yd. earth and 1,150 cu.yd. loose rock excav., 105.68 cu.yd. Class "A" concrete, 35,300 cu.yd. gravel to be furnished by county, cost $111,548, 4,522 lb. reinforcing steel, etc. Noted Nov. 18.

Tex., Daingerfield—Morris Co. received bids Nov. 23, grading, surfacing and draining (1) 10.68 mi. State Highway 1-A, 12 ft. wide, (2) 2.66 mi. Morris-Choctaw Trail, Highway 35, 12 ft. wide, from C. W. Burgess, 710 Haines St., (1) $84,787, (2) $33,-436; Smith Bros., Crockett, (1) $87,414, (2) $34,436; N. B. Gregory, Texarkana, (1) $85,073, (2) $34,166. Noted Nov. 18.

★**Tex., Dallas**—City let contract surfacing 2,200 ft. Thomas Ave. from Hall to McKinney Sts., 30 ft. wife, asphalt on concrete base, to Uvalde Paving Co., 1001 Main St., $76,384; 300 ft. Dickason St. from Douglas to Wycliffe Sts., 30 ft. wide, asphalt on concrete base, to Texas Bitulithic Co., Praetorian Bldg., $10,000.

★**Tex., Ft. Worth**—City let contract for 13,452 sq.yd. Warrenite-bitulithic pavement on 5 in. concrete base, to Texas Bitulithic Co., 1101-6 Praetorian Bldg., Dallas.

★**Tex., Hillsboro**—Hill Co. let contract grading, surfacing and draining highways in Irene Special Rd. Dist. 8, to Brown & Root, Taylor, $64,270. Work involves 60,-000 cu.yd. borrow and 5,000 cu.yd. earth excav., 20,000 lb. reinforcing steel (12,000 cu.yd. gravel to be furnished by county), 200 cu.yd. Class "A," 50 cu.yd. Class "B" and 10 cu.yd. Class "C" concrete, etc.

★**Tex., Houston**—City let contract for 2,300 sq.yd. Warrenite-bitulithic pavement on 6 in. concrete base, to Gulf Bitulithic Co., Houston.

Tex., Linden—Cass Co. received bids Nov. 22, grading, surfacing and draining 10.99 mi. State Highway 1-C, Atlanta Rd., from Smith Bros. and Healey Constr. Co., c/o Smith Bros. Crockett $80,665; N. B. Gregory, Texarkana, $86,039. County to furnish 17,197 cu.yd. gravel surfacing, cost $26,438. Noted Nov. 18.

Tex., Nacogdoches—Nacogdoches Co. received bids Nov. 15, grading surfacing and draining 9.73 mi. Highway 35, Lufkin Rd., from here to Angelina Co. line, 15 ft. wide, from H. F. Bland, San Augustine, $76,839; Smith Bros. Crockett, $99,819; J. S. Moore & Sons, Lufkin, $108,072. Noted Nov. 11.

Tex., Nacogdoches—Nacogdoches Co. received bids Nov. 15, grading, surfacing and draining (1) 23.17 mi. Highway 21, from Gonzales to San Augustine, (2) 19.58 mi. Highway 35, Garrison Rd., from here to Shelby Co., from H. F. Bland San Augustine, (1) $172,319 (2) $138,607; Smith Bros., Crocket, (1) $212,731, (2) $173,149; J. S. Moore & Son, Lukin, (1) $235,975, (2) $189,114. Noted Nov. 11.

Tex., Orange—Orange Co. received bids grading, paving and draining 4.98 mi. Highway 3, Orange-Beaumont Rd., from Houston Constr. Co., 3102 McKinney St., Houston, $223,271; W. Moore & Co., Texas City, $236,628; Sherman Constr. Co., Mexia, $237,173. Work involves 12.24 acres clearing and grubbing, 21,609 cu.yd. borrow and 9,249 cu.yd. earth excav., 11,161 lb. reinforcing steel, 45,662 sq.yd. concrete pavement, 145.5 cu.yd. Class "A" and 33.6 cu.yd. Class "B" concrete.

★**Tex., Sherman**—Grayson Co. let contract grading surfacing and draining 7.37 mi. Jefferson Highway 11, 12 and 16 ft. wide, to Womack Constr. Co., Sherman, $74,896; including 10 per cent for engineering and contingencies. Noted Dec. 2.

Utah—State Highway Dept., Salt Lake City, received bids Nov. 20, paving 2.1 mi. road, 18 ft. wide, Washington Co., bitulithic on crushed rock base, from Workman & Isom, St. George, $55,956; J. L. Griffiths, 2137 South 10 East St., Salt Lake City, $69,048; Reynolds-Ely Constr. Co., Salt Lake City, $74,259.

★**Utah, Ogden**—City let contract for 4,200 sq.yd. Warrenite-bitulithic pavement on 3½ in. dense asphaltic concrete base, to Moran Paving Co., Felt Bldg., Salt Lake City.

★**Cal., Fresno**—City let contract for 19,-983 sq.yd. Warrenite-bitulithic pavement on 3½ in. asphaltic concrete base, to Thompson Bros., 1514 H St.

Cal., Los Angeles—City received bid Nov. 22, improving Fawn Ave. between Reservoir and point 1,080 ft. northeast, from S. McCray, 469 West Ave. 59, $30,711.

★**Cal., Pasadena**—City let contract improving San Miguel Rd. between Colorado St. and Mitrodale Rd., to J. E. Haddlock, 357 North Chester Ave., $10,037.

★**Cal., Venice**—City let contract improving 4th Ave. between Bway. and Rose Ave., to Braun, Bryant & Austin, Santa Monica, $20,515.

★**N. S., Fairview**—Dept. Railways & Canals, Western Blk., Ottawa, let contract grading locomotive terminal yards here, for Canadian Natl. Ry., to Dominion Constr. Co., Moncton, N. B. About $16,800.

Railways

PROPOSED WORK

West Virginia—Morgantown & Wheeling Ry., Morgantown, plans to build second track from Randall to Osage. About $30,-000. R. E. Kerr, Morgantown, receiver.

Florida—See "Miscellaneous" under Jacksonville.

South Dakota—Chicago, Milwaukee & St. Paul Ry., 80 East Jackson Blvd., Chicago, plans to extend tracks, rearrange yards and build passenger station, at Sioux Falls. About $200,000. C. F. Loweth, Chicago, ch. engr.

Ontario—City of Toronto, plans to build ½ mi. street railway on Bloor St. from Sherbourne to Broadview Aves., cost $185,000, install insulated negative feeder line on Danforth Civic Ry., cost $31,350.

Excavation and Dredging

PROPOSED WORK

N. C., Swan Quarter—Dredging—Hyde Co. D. D. 2 plans to issue $393,000 bonds, half of which is to pay for work already done and balance for new light dredge work. J. A. Leigh, chn.

Ia., Muscatine—Ditch—Muscatine Co. had surveys made for 3 mi. open ditch in Sub-Dist. 1 of D. D. 13, involving 60,000 cu.yd. excav. About $20,000. Central States Eng. Co., Muscatine, engrs.

Idaho, Caldwell—Canal—Pioneer Irrigation Dist. election Dec. 20 to vote on $215,-000 bonds to line several miles of side hill canal, with concrete, also build cement head gates and purchase drag line dredge. F. L. Evans, secy.

BIDS DESIRED

Ia., Hampton—Ditches—Until Dec. 16, by E. D. Hecker, aud. Franklin Co., building ditches, involving 50,925 cu.yd. excav., 54,-115 lin.ft. 6 in. tiling, etc. About $30,000. F. S. Currie, co. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Fla., Tampa**—Dredging—City let contract dredging 24 x 250 x 800 ft. slip, involving 380,000 cu.yd. excav., to Seaboard Dredging Co., Durkee Bldg., Jacksonville, at $.29 per cu.yd. Noted Nov. 11.

Industrial Works

PROPOSED WORK

Mass., Allston (Boston P. O.)—T. L. Harkins Machine Co., 56 Farnsworth St., South Boston, had plans prepared for 2 story, 50x100 ft. rein.-con. plant, rein.-con. flooring, concrete foundation, on Union Sq. Architect not announced.

Mass., Natick—Griess Pfleger Tanning Co. of Massachusetts, P. O. Box 271, plans to build large addition to plant, also large storage and warehouse. Private plans.

Mass., Pittsfield—Pittsfield Electric Co., 92 Renne Ave., plans to build brick, concrete and steel addition to power plant. Cost between $100,000 and $125,000. Architect not selected.

Mass., Salem—M. and A. I. Rudnick, 40 Court St., Boston, plans to build 4 story, 200 x 200 ft., rein.-con. plant, rein.-con. flooring, concrete foundation, on Essex St. Private plans.

Conn., New Haven—Connecticut Sash & Door Co., 451 Grand Ave., plans to construct 3 brick and steel buildings to replace those destroyed by fire. Loss $70,000. Private plans.

N. Y., Jamaica—Metropolitan Tobacco Co., 22 Bergen Ave., having plans prepared by Koch & Wagner, archts. and engrs., 32 Court St., Brooklyn, for 1 story, 80 x 115 ft., rein.-con. and brick factory, rein.-con. flooring, concrete foundation, on Bergen Ave. and Bergen Pl. About $80,000.

Industrial Works (Continued)

N. Y., New York—G. A. Whalen, comr. Plant & Structures, Municipal Bldg., rejected bids received Nov. 11, constructing housing stations for Dept. Street Cleaning, on Canal, West and Spring Sts.; 17th St. and Ave. C; Rivington, Tompkins and Mangin Sts.; cost $85,000, $85,000 and $130,000 respectively. Work will be readvertised. Noted Nov. 18.

N. Y., New York—A. C. Chesley & Co., 277 Rider Ave., having plans prepared by P. J. Murray, archt. and engr., 141 East 40th St., for 2 story, 50x200 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on 132d St. and Cypress Ave. About $100,000. Noted Oct. 7.

N. J., Foul Rift (Belvidere P. O.)—W. C. Albertson and S. L. Mershon plan to build power house transmission line and dam across Delaware River. Fort, Hunt & Shipman, 31 Clinton St, Newark, engrs.

N. J., Maurer—Lockwood-Green, archts and engrs., 101 Park Ave., New York City, open bids about Dec. 20, constructing power house, manufacturing and machinery buildings, rein.-con. and steel, rein.-con. flooring, concrete foundations, here, for Barber Asphalt Paving Co., Land Title Bldg., Phila. About $1,000,000. Noted Nov. 11.

Pa., Williamsport—Vallamont Building & Planing Mill Co., 1009 Market St., plans to build 6 story, 100x200 ft., rein.-con. and brick, mill and warehouse, on Pine and Court Sts. About $100,000. J. C. Winter, pres.

Md., Baltimore—G. R. Vincent, 212 Light St., having plans prepared by E. G. Blanke, archt., 532 North Calvert St., for 3 story, 127 x 140 ft., brick and concrete, at 3-7 North Paca St. About $60,000.

N. C., Raleigh—J. L. Dorming c/o Raleigh Ice & Cold Storage Co., plans to build ice manufacturing plant and cold storage house, brick, on West Hargett St. About $100,000. Architect and engineer not selected.

Ga., La Fayette — Consolidated Textile Corp., 11 Thomas St., New York City, plans to build 2 story, brick and steel addition to mill, here. About $150,000. J. E. Sirrine & Co., Greenville, S. C., archts. and engrs.

Ga., Savannah—Georgia Ice Co. plans to build 2 story, 60 x 150 ft., rein.-con. and brick addition to ice plant. About $35,000. A. M. Dixon, Box 1352, mgr.

Ga., West Point—West Point Mfg. Co. plans to construct picker house, opener room and machine shop additions, to cover 60,000 sq.ft. floor space, rein.-con., brick and steel, concrete flooring. About $200,000. L. W. Robert, Candler Bldg., Atlanta, engr.

Fla., Jacksonville—See "Miscellaneous."

La., New Orleans — International Harvester Co., 606 South Michigan Ave., Chicago, Ill., had preliminary plans prepared for plant, here. About $6,000,000. Private plans.

Ky., Louisville—Kentucky Iron & Steel Co., Jones and N Sts., plans to build plant. About $550,000.

Ky., Louisville—Natl. Candy Co., c/o Brodes & Theens, 829 South Floyd St., plans to build addition to factory. About $1,000,000.

Ky., Louisville—Southern Wood Products Co., c/o L. Klarer, Jr., secy. and treas., 106 North Western Parkway, plans to build auto body plant. About $100,000.

O., Cincinnati—Cincinnati Gas & Electric Co., 114 West 6th St., plans election to vote on $50,000,000 bonds to install 4th turbine generating unit. Fifty per cent of turbine unit to supply power to city car line. C. D. Jones, pres.

O., Cleveland—City Ice Delivery Co., Cadillac Bldg., plans to build 1 story brick and steel plant, brick foundation, on Saranac Rd. About $50,000. O. C. Coneby, c/o owner, archt. and engr.

O., Cleveland—Keystone Bolt & Nut Mfg. Co., c/o W. Krejci, 502 Ullmer Bldg., plans to build 2 story, 50 x 100 ft., brick and steel factory, brick foundation, on East 93rd St. About $75,000. Private plans.

O., Columbus — State Highway Comn., Stoneham Bldg., had plans prepared by V. Redding, archt., 30 Bird Bldg., Mansfield, for 1 story, 100x150 ft., brick garage and number of corrugated iron sheds. About $175,000.

O., Warren—Youngstown Steel Co. purchased 425 acre site 3 mi. north of here, adjacent to Mahoning Ave., and plans to cost $5,000,000. H. Bixler, Realty Trust Bldg., Youngstown, ch. engr.

O., Warren—Western Reserve Motor Car Co. purchased 200 acre site, near here, and plans to build large manufacturing plant. First unit will be 2 story, 80 x 450 ft., and cost $200,000. R. K. Johnson, 1181 East 99th St., Cleveland, pres.

Ind., Crown Point—See "Buildings."

Mich., Port Huron—C. Kern & Co. plans to build 2 story ice plant, concrete brick and steel, rein.-con. flooring, concrete foundation. About $100,000. Private plans.

Wis., Benson (Randall P. O.)—See "Miscellaneous."

Wis., Boscobel—G. L. Hunt Mfg. Co. plans to build 2 story, 60 x 85 ft., concrete, brick and steel factory, on Main St. About $50,000. Architect not selected.

Wis., Glidden—Northern Wood Products Co. plans to build 2 story, 85 x 110 ft., concrete, brick and steel factory, rein.-con. flooring, concrete foundation, on Main St. About $55,000. Architect not selected.

Wis., Manitowoc — Manitowoc Products Co., 10th and Washington Sts., having preliminary plans prepared by W. J. Raeuber, archt., 826 South 8th St., for 2 story, 55 x 142 ft., brick, rein.-con. and steel factory, brick foundation, on Washington St.

Wis., Merrill—Wisconsin Cheese Producers Assn., Plymouth, plans to build 2 story, 60 x 250 ft., rein.-con. and steel warehouse and office, brick foundation, on Main St., here. About $100,000. Architect not selected.

Wis., Milwaukee—Atlas Bread Co., 927 Central Ave., having plans prepared by A. Koch, archt., Wells Bldg., for 2 story, 60x160 ft., concrete and brick addition to bakery, rein.-con. flooring concrete foundation. About $75,000.

Wis., Milwaukee — Milwaukee-Muskegon Ry. & Navigation Co., c/o Assn. of Commerce, Y. M. A. C. Bldg., plans to build rein.-con. and brick terminal, rein.-con. flooring, concrete and pile foundation, on 12th St. About $2,000,000. Architect and engineer not selected.

Wis., Mineral Point—Fiedler Motor Co., c/o E. C. Fiedler, proprietor, having revised plans prepared by H. Kleinhammer, archt., Platteville, for 1 and 2 story, 100 x 136 ft., concrete brick and steel garage rein.-con. flooring, concrete foundation, on Main and Atwater Sts. About $80,000.

Wis., Plymouth — Plymouth Phonograph Co. plans to build 2 or 3 story, 60 x 185 ft., rein.-con. and brick factory, concrete foundation, on Main St. About $75,000. W. A. Thomas, pres. Architect not selected, probably private plans.

Wis., Sheboygan Falls—P. Kwekkelboom, 10th Ave., having plans prepared by M. Howard, archt., Sheboygan Falls, for 2 and 3 story, 65 x 120 ft., garage, office and salesroom, brick, rein.-con. and tile, rein.-con. flooring, brick foundation.

Wis., Valders—W. E. Christel having preliminary plans prepared by Juul-Smith, archts., Imig Bldg., Sheboygan, for 2 story, 50 x 85 ft., rein.-con. and brick garage and office, rein.-con. flooring, concrete foundation, on Main St. About $75,000.

Minn., Albert Lea—C. C. and R. G. Lang plan to construct canning plant, to include 3 story, 50 x 70 ft. main factory, 30 x 30 ft. boiler room, 50 x 50 ft. corn husking house, 60 x 80 ft. warehouse and 50 x 50 ft. shed. Architect not announced.

Minn., St. Paul—E. Swanson, 129 Lafond St., having plans prepared by W. D. MacLeith, archt., 432 Endicott Bldg., for 1 story, 112 x 140 ft. rein.-con., brick and terra cotta garage, on Selby Ave. and Dunlap St. About $45,000.

Ark., Springdale—Welch Grape Juice Co., Portage St., Westfield, N. Y., plans to build factory, here. About $375,000. J. F. Welch, vice-pres.

Que., Montreal—United Press Co., Notre Dame St. W., plans to build plant. About $50,000.

Que., Montreal — Salada Tea Co., 155 Berkeley St., Boston, Mass., having plans prepared by Dinsmore & Le Clear, archts., 88 Broad St., Boston, for remodeling 10 story, 65 x 85 ft., concrete and brick plant and office building, on St. Lawrence Blvd., here. About $150,000.

Que., Quebec—P. A. Beaulieu, 37 Bourlarque St., soon receives bids building brass foundry. About $50,000.

Ont., Kingsville — Conklin Planing Mill plans to rebuild plant recently destroyed by fire. Loss $50,000.

Ont., Toronto—City plans to build machine shop, cost $385,000, also asphalt plant, $140,000. R. C. Harris, city engr.

B. C., Vancouver—Coast Range Steel, 419 Metropolitan Bldg., recently incorporated with capital stock of $15,000, plans to build large steel plant near here. H. J. Landahl, organizer.

BIDS DESIRED

Mass., Brockton—G. L. Falk, archt., 17 Main St., receiving bids building 1 story, 125 x 250 ft. mill construction plant, rein.-con. flooring, concrete foundation, on North Montello St., for Baker Realty Co. About $75,000.

Mass., Cambridge — W. T. Littlefield, archt. and engr., 9 Hamilton Pl., Boston, receiving bids building 1 story, brick and steel plant addition, rein.-con. flooring, concrete foundation, for G. Lawrence Inc., 21 Cambria St. About $40,000. Noted Aug. 5.

Mass., Taunton—Until Dec. 13, by Jackson & Moreland, archts., 387 Washington St., Boston, altering concrete and steel electric lighting plant for city. About $75,000.

N. C., Kinston—Until Dec. 14, by Mayor and City Council, building power plant, auxiliary pumping station, chimney, foundations, etc. W. C. Olsen, Kinston, engr. Noted Nov. 25.

O., Cleveland—Until Dec. 15, by Natl. Carpet & Rug Mfg. Co., 1971 West 50th St., building 2 story, 40 x 120 ft., brick and steel factory, brick foundation, on Lorain Ave. About $75,000. Whitworth & Johnson, 413 Engineers Bldg., archts. Noted Dec. 2.

Ill., Centralia—Consulting Co., archts., 2801 Union Central Bldg., Cincinnati, O., receiving bids building 2 story, 60 x 400 ft., concrete brick and steel factory, concrete foundation, here, for Amer. Rubber Co., 1526 South Wabash St., Chicago. About $100,000.

Ill., Chicago—Marshall & Fox, archts., 721 North Michigan Ave., receiving bids building 3 story, 296 x 310 ft., rein.con., brick, steel and stone power plant, rein.-con. flooring, concrete foundation, on 100th St. and Commonwealth Ave., from Commonwealth Edison Co., 72 West Adams St. Cost including equipment $5,000,000. Sargent & Lundy, 72 West Adams St., engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., South Boston** (Boston P. O.)—J. West Thread Co., 297 Congress St., Boston, let contract building 3 story, 60 x 100 ft., rein.-con. addition to plant, rein.-con. flooring, concrete foundation, on Covington St., to Aberthaw Constr. Co., 27 School St., Boston. About $75,000.

★**Mass., South Egremont** — Berkshire Stone Products Corp., Boston, let contract building 3 lime kilns, stone crushing plant, saw sheds, 60 x 400 ft. crane and runway, various frame buildings, 1½ mi. standard and narrow gauge railroad and 1 mi. pole line for power transmission, at plant, here, to J. R. Hampson & Co., Inc., Pittsfield. About $100,000.

★**N. Y., Brooklyn**—Callen Bros., 78 19th St., let contract building four 1 story, brick, steel and concrete warehouses, rein.-con. flooring, concrete foundations, on 19th St. near 3rd Ave., to L. J. Rice, 78 19th St.

★**N. Y., Brooklyn**—Eclipse Box & Lumber Co., 425 Greenpoint Ave., let contract building 1 story, 200 x 300 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Russell St., to Parsons & Lantry, 30 Church St., New York City. About $100,000.

★**N. Y., Brooklyn**—C. Giovinco, c/o C. P. Cannella, archt., 1163 Herkimer St., will build 1 story, 25 x 115 ft., brick and steel factory, rein.-con. flooring, concrete foundation, on Maujer St. About $50,000. Work will be done by day labor.

★**N. Y., New York**—Spring St. Garage Co., c/o F. J. Schefeick, archt. and engr., 4168 Park Ave., will build 1 story, 100 x 225 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Fordham Rd. and Hughes Ave. About $50,000. B. Neiburg, pres. Work will be done by day labor.

Industrial Works (Continued)

★**N. Y., Sherman Island** (Glens Falls, P. O.)—International Paper Co., 30 Broad St., New York City, let contract building rein.-con. and steel hydro-electric plant, concrete foundation, here, to Barclap Constr. Co., 84 Pine St., New York City. About $5,000,000.

★**Ala., Birmingham**—Continental Gin Co., 3330 10th Ave., let contract building 132 x 400 ft. foundry and 100 x 300 ft. machine shop, each 1 story rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to H. K. Ferguson Co., 6523 Euclid Ave., Cleveland, O. About $500,000.

★**La., New Orleans**—Apex Paper Co., Paris Ave. and New Orleans Terminal R.R., will build 1 story, 40 x 90 ft., concrete and steel warehouse and factory. About $50,000. Work will be done by day labor. Architect not selected.

★**Mich., Detroit**—Anchor Bldg. Co. c/o F. J. Winter, archt., 2331 Dime Bank Bldg., let contract building 2 story, 50 x 100 ft. brick and steel printing shop, concrete foundation, on West Grand Blvd. and Fort St., to Krieghoff Co., 1187 Bellevue Ave. About $50,000.

★**Mich, Detroit**—Detroit Evening News Co., Lafayette Blvd., let contract building 1 story, 90 x 140 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, to H. G. Christman Co., 315 Stevens Bldg. About $75,000. Noted Oct. 14.

★**Ill., Chicago**—J. Eiszner, c/o Foltz & Brand, archts., 111 West Washington St., let contract building 4 story, 70x120 ft., concrete and brick factory, concrete foundation, on Kinzie and Curtis Sts., to F. E. Doherty, 133 West Washington St. About $100,000.

★**Ill., Chicago**—Chicago Wet Wash Laundry, c/o Ronenberg, Pierce & Hauber, archts., 10 South La Salle St., let contract building 2 story, 64 x 152 ft., rein.-con. and brick laundry, concrete foundation, to Great Lakes Constr. Co., 308 South Wabash St. About $65,000.

★**Wis., Cedarburg**—Wetzel Art Furniture Co., 1367 Green Bay Ave., Milwaukee, let contract building 2 story, 40 x 120 ft., brick, rein.-con. and steel factory, brick foundation, on Main St., here, to J. Vollmer, Main St. About $75,000.

★**Wis., Fond du Lac**—Fountain City Ice Cream & Dairy Co., 218 South Main St., let contract building 2 story, 60 x 112 ft. dairy, concrete, rein.-con. flooring, concrete foundation, on West Division St., to L. Schroeder, 93 7th St. About $60,000; cost plus percentage basis. Noted Oct. 21.

★**Wis., Port Wing**—Northern Wisconsin Hydro-Electric Power Co. will build hydro-electric power plant and rein.-con. dam, with 75 ft. head, across Iron River. About $200,000. Work will be done by day labor.

★**Col., Ault**—Great Valleys Sugar Co., Central Savings Bank Bldg., Denver, let contract building factory, here, to Schwarz Eng. Co., Mack Blk., Denver About $1,000,000; cost plus percentage basis.

★**Col., Lafayette**—Great Valleys Sugar Co., 800 Central Bank Bldg., Denver, let contract building factory, here, to Schwarz Eng. Co., Mack Blk., Denver. About $1,000,000; cost plus percentage basis.

★**Que., Three Rivers**—Three Rivers Pulp & Paper Co. let contract building pulp and paper plant and necessary wharves and docks, etc., to W. I. Bishop Ltd., New Berks Bldg., Montreal. About $500,000.

Buildings

PROPOSED WORK

Mass. Boston—Office—Salada Tea Co., 155 Berkeley St., having revised plans prepared by Densmore & Le Clear, archts. and engrs., 88 Broad St., for 9 story, 100 x 125 ft., concrete and stone addition, on Stewart and Berkeley Sts. Noted Mar. 25.

Mass., Boston—Theatre—Selwyn Theatre Corp., 229 West 42nd St., New York City, having plans prepared by H. W. Crane, archt., 160 North Ashland St., Chicago, for brick and stone, brick foundation, here. About $500,000.

Mass., East Boston (Boston P. O.)—Theatre—Funk & Wilcox, archts. and engrs., 294 Washington St., Boston, prepared plans for 2 story, concrete, brick and steel, rein.-con. flooring, here. About $150,000. Owner's name withheld.

Mass., Framingham—Parish House—First Unitarian Church having plans prepared by C. M. Baker, archt., Equitable Bldg., Boston, for 2 story, 45 x 180 ft. brick and steel.

Mass., Holyoke—School—City plans to build 2 story, brick and steel, in Lawrence School Dist. About $250,000. Architect not selected.

Mass., Newburyport—Church—St. Paul's Episcopal Church having plans prepared by W. G. Perry, archt., 50 Congress St., Boston, for rebuilding brick and stone. About $75,000. R. C. Sturgis, 120 Boylston St., Boston, associated archt.

Mass., Worcester—Library—City plans to build brick and stone. About $1,000,000. Architect not selected.

Conn., Darien—Theatre—G. H. Philcox, Grove St., plans to build 3 story, 70 x 120 ft. brick and concrete, on Post Rd. About $75,000. Private plans.

Conn., New Haven—Gymnasium and Hall—Fraternal Order Eagles, 26 Crown St. plans to build 50 x 170 ft., on College St. About $75,000. Architect not selected.

N. Y., Brooklyn—School—Bd. Educ., 500 Park Ave., New York City, having plans prepared by C. B. J. Snyder, archt. and engr., Municipal Bldg., New York City, for P. S. 136, brick, stone and steel concrete foundation, on 4th Ave. between 40th and 41st Sts. About $650,000.

N. Y., Ithaca—Laboratory—Cornell University, Roberts Hall, plans to build 5 story, 190 x 268 ft., stone and brick. Gibb & Waltz, Trust Co. Bldg., archts.

N. Y., New York—College—J. B. Snooks Sons, archts. and engrs., 261 Bway., soon let contract building 4 story, brick, steel and stone, brick foundation, at 309-315 East 34th St., for College of Dental & Oral Surgery, West 35th St. About $200,000. Noted May 27.

N. Y., New York—Store and Office—J. B. Snook Sons, archts. and engrs., 261 Bway., soon let contact altering 4 story, brick and stone, at 26 Beekman St., for J. Ridley, c/o architects. About $100,000.

N. J., Atlantic City—Club—B. P. O. E. plan to build new club. About $1,000,000. C. Bacharach, 108 St. Charles Pl., chn.

N. J., Newark—Church and Hall—First German Presbyterian Church, College Pl. had plans prepared by A. C. Sieder, archt., 45 Clinton St., or 1 story, 60 x 92 ft. church, on Osborne Terrace and Yates Ave., and 1 story, 50 x 95 ft., parish hall, on Hawthorne Ave. About $200,000.

N. J., Spring Lake—Community House—Town having sketches made by F. E. Newman, archt. and engr., 120 East 40th St., New York City, for brick, steel and stone, concrete foundation, on Brighton St. About $100,000. J. Hemphill, chn.

N. J., Summit—School—Bd. Educ. having plans prepared by Guilbert & Betelle, archts., 2 Lombardi Sts., Newark, for 4 story school. About $50,000.

N. J., Trenton—Home—New Jersey Childrens Home Society, Brunswick Ave., plans to build new home. About $150,000. J. C. Tattersall, 407 West State St., chn.

Pa., Phila.—Theatre—Selwyn Theatre Corp., 229 West 42nd St., New York City, having plans prepared by H. W. Crane, archt. and engr., 160 North Ashland St., Chicago, for brick and stone, brick foundation, here. About $500,000.

Pa., York—Theatre—N. Appell of York and J. and I. Silverman, 1512 11th Ave., Altoona, having plans prepared by H. C. Hodgens, archt. 130 South 15th St., Phila. for 4 story, steel and concrete, 2,250 seating capacity on North George and Philadelphia Sts. About $500,000.

Md., Baltimore—Hospital—Union Protestant Infirmary, Division and McMechen Sts., having plans prepared by J. E. Sperry, archt., 409 Calvert Bldg., for 6 story, brick and stone, stone foundation, on Guilford and 33rd Sts. About $1,500,000.

Md., Baltimore—Theatre—Rialto Theatre, 444-48 Equitable Bldg., having plans prepared by G. S. Childs, archt., 306 St. Paul St., for brick and concrete, concrete foundation, at 846-48 West North Ave. About $100,000.

Md., Catonsville (Baltimore P.O.)—Hospital—State Lunacy Comn., 330 North Charles St., Baltimore, having plans prepared by H. P. Hopkins, archt., 347 North Charles St., Baltimore, for brick addition. About $75,000.

D. C., Chevy Chase (Wash. P. O.)—Church—F. A. Nelson, archt. and engr., 15 West 38th St., New York City, soon lets contract building 1 story, 40 x 90 ft. brick and stone, for Presbyterian Church. About $100,000. H. R. Johnson, Cliffbourne Pl., N. W., Wash., D. C., pastor.

N. C., Moeroe—School—City election Dec. 15, to vote on $200,000 bonds to build school.

N. C., Winston-Salem—Hotel—W. H. Bruce and L. W. Kyles plan to build on North Depot St. About $100,000.

S. C., Columbia—College—Chicora College for Women, 1617 Blanding St., plans to construct several buildings on 60 acre site. C. C. Wilson, Palmetto Bldg., archts. and engrs. Noted May 13.

Fla., Tampa—Business and Lodge—Tampa Consistory, Scottish Rite, had plans prepared by M. L. Elliott, archt., Curry Bldg., for 3 story, 105 x 105 ft., tile, brick, terra cotta and granite, rein.-con. flooring. About $150,000. A. B. Stewart, Penn Phone Bldg., chn. building com.

Miss., Hattiesburg—High School—City voted $75,000 bonds to build new high school and $6,000 to repair existing school.

Miss., Hattiesburg—Hall—City voted $100,000 bonds to build city hall.

Tenn., Nashville—Hotel—F. J. Frahn, archt., Independent Life Bldg., is interested in corporation which plans to build hotel in West End. About $1,000,000. Owners name withheld.

Tenn., Nashville—Y. M. H. A., 712 Union St., plans to construct building. About $175,000.

O., Castalia—School—Bd. Educ. having plans prepared by F. L. Packard, archt., Hayden Bldg., Columbus, for 2 story, 8 room, brick and concrete. About $125,000. W. Rogers, Jr., clk. Noted Nov. 11.

O., Cleveland—Bank—Central Natl. Bank, Kirby Bldg., had plans prepared by Knox & Elliott, archts., Kirby Bldg., for remodeling 1 story, marble and steel, on West 6th St. and Superior Ave. About $75,000.

O., Cleveland—Bank—G. B. Post & Sons, archts., Schofield Bldg., opens bids about Dec. 20, building 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 55th St. and Woodland Ave., for Cleveland Trust Co., East 9th St. and Euclid Ave. About $100,000. Noted Sept. 23.

O., Clevelard—Temple—Euclid Ave. Temple, c/o L. Wolsey, East 82nd St. and Euclid Ave., plans to build 1 story, brick, steel and stone addition, brick foundation, on East 82nd St. and Euclid Ave. About $50,000. Architect not selected.

O., Cleveland—Terminal—Detroit & Cleveland Transit Co., c/o D. C. McIntyre, mgr., foot of East 9th St., plans to construct 1 story, 150 x 400 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $800,000. Private plans.

O., Middletown—High School—Bd. Educ. plans to build 2 story, fireproof, on 6th St. About $500,000. P. T Banker, chn. Bldg. Com. Architect not selected.

O., Middletown—Schools—Bd. Educ. plans to build two 2 story, fireproof schools, one on Edgewood Ave. and other on Linden Ave. About $260,000, each. P. T. Banker, chn. bldg. com. Architect not selected.

O., Venice—School—Bd. Educ., Castalia, having plans prepared by F. L. Packard, archt., Hayden Bldg., Columbus, for 2 story, brick and concrete, here. About $75,000. W. Rogers, Jr., clk.

Ind., Chesterton—J. G. Johnson, trustee, Lafayette, plans to build 2 story, school, here. About $100,000. Architect and engineer not selected.

Ind., Crown Point—Administration, etc.—J. N. Coleman, archt., 6257 St. Lawrence St., Chicago, receives bids about Jan. 1, constructing 2 story, 65 x 240 ft. rein.-con. administration building; 2 story, 50 x 80 ft., rein.-con. service building, 2 story, 50 x 50 ft. power plant, two 1 story, 35 x 180 ft. pavilions, ordinary construction, stucco exterior, here, for Crown Point Hospital. About $350,000.

Ind., Crown Point—Nurses' and Children's Home, etc.—Crown Point Hospital plans to build 2 story, 50 x 100 ft. nurses' home, fireproof; 1 story, 45 x 240 ft., children's home, fireproof, stucco exterior; eight minor buildings, averaging 1 story, 50x65 ft. fire-

Buildings (Continued)

proof; four 1 story, 85x180 ft. pavilions, fireproof, stucco exterior. About $450,000. J. N. Coleman, 6257 St. Lawrence Ave., Chicago, archt.

Ind., Decatur — Hospital — Bd. Comrs Adams Co. plans to build 2 story, hospital. About $100,000. Architect and engineer not selected.

Ind., Franklin—Memorial—Grand Lodge. F. & A. M., Masonic Temple, Indianapolis, plans to build memorial, here About $150,000. Architect and engineer not selected.

Ind., Indianapolis—Hospital—Bd. Pub. Wks. having plans prepared by W. F. Russ, archt., 313 North Pennsylvania St., for 3 story, 88 x 175 ft., rein.-con., brick and steel, rein.-con. flooring, on Margaret St. About $400,000.

Ind., Kendallville—Noble Tire & Rubber Co. receives bids after Jan. 1, building 2 story, 50 x 200 ft., brick and tile factory, rein.-con. flooring. About $75,000. A. M Strauss 207 Bank Blk., Ft. Wayne, archt.

Ind., Loree—High School—Bd. Educ. receives bids about Jan. 1, building 2 story, 95 x 97 ft., brick, stone and concrete, rein.-con. flooring. About $80,000. E. E. Dunlap Co., 909-10 State Life Bldg., Indianapolis, archts. Snider & Rotz, 703 Merchants Bank Bldg., Indianapolis, engrs.

Ind., Marion—School—J. M. Clifton, trustee, plans to build 2 story, 65 x 75 ft., brick and stone. About $120,000. H. G. Bowstead, Marion, archt.

Ind., Peru—Theatre—Loomis Amusement Co. receives bids after Jan. 1, building 2 story, 63 x 130 ft. addition, terra cotta and stucco, tile and concrete flooring. About $85,000. E. E. Dunlap & Co., 909-10 State Life Bldg., Indianapolis, archts.

Ind., Richmond — Memorial — Study & Farrar, archts., Arcade Bldg., St. Louis, Mo., will probably receive bids in spring, constructing 1 story, white stone memorial building, for Wayne Co. About $500,000. Noted Aug. 19.

Mich., Battle Creek — School — J. D. Chubb, archt., 109 North Dearborn Ave., Chicago, receives bids about Jan. 1, building 3 story, 75 x 400 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, here, for Bd. Educ. About $400,000.

Mich., Detroit—School—United Hebrew School, c/o E. Rabonowitz, 230 East High St., having plans prepared by I. M. Lewis, archt., Congress Bldg., for 2 story, 60 x 250 ft. rein.-con., brick and steel, concrete foundation, on St. Antoine St. and Kirby Ave. About $200,000. Noted Oct. 14.

Mich., Detroit—Theatre—Selwyn Theatre Corp., 229 West 42d St., New York City, having plans prepared by H. W. Crane, archt., 160 North Ashland St., Chicago, for brick and stone, brick foundation, here. About $500,000.

Mich., Detroit—Theatre and Store—H. Silverman, c/o M. H. Finkel, archt., Majestic Bldg., having plans prepraed for 2 story, 130 x 140 ft. brick and steel, on Hamilton and Tuxedo Aves. About $150,000.

Mich., Flint—Jail—Bd. Supervs., Genesee Co., c/o F. W. Brennan, plans to build 3 story, rein.-con., brick and steel addition. About $75,000. Architect not selected.

Mich., Jackson—Church—First Methodist Episcopal Church, West Main St., receives bids in spring remodeling and enlarging 3 story, stone. About $250,000. F. Spence, pastor.

Mich., Port Huron—School—St. Stephens Parish, c/o W. Devereaux, chn., plans to build 3 story, rein.-con. brick and steel, on 7th St. About $100,000. Architect not selected.

Ill., Big Rock—Schools—School Bd. plans to build high school and addition to grade school, concrete and brick, concrete foundation. About $100,000. J. N. Coleman, 6257 St Lawrence St., Chicago, archt.

Ill., Buckley—High School—School Bd. plans to build 1 story, 114x120 ft., concrete and brick concrete foundation. J. N. Coleman, 6257 St. Lawrence Ave., Chicago, archt.

Ill., Chicago — Club — Chicago Yacht Club, Grant Pl., foot Monroe St., having plans prepared by A. N. Rebori, archt. 410 South Michigan Blvd., for 1 story, 60 x 180 ft., concrete, brick and steel, concrete foundation, on Lincoln Park Blvd.

Ill., Chicago—Hotel—J. A. Armstrong, archt., 127 North Dearborn St., opens bids about Dec. 15, building 8 story, 100 x 170 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Kenmore St. and Belmoral Ave., for Northern Beach Hotel Co., c/o architect. About $1,000,000.

Ill., Chicago—Office—Hilton Co., Inc., 793 Broad St., Newark, N. J., plans to build 100 x 123 ft., on State and Jackson Sts., here. Cost between $1,000,000 and $2,000,000. Architect not selected.

Ill., Chicago—Store—Peoples Furniture Co., 1930 South Halstead St., plans to build 2 story, 75x125 ft., concrete and brick, concrete foundation, on Archer Ave. and South Richmond St.

Wis., Appleton — Memorial — Outagamie Co. plans to build 3 story, rein.-con., stone and brick. About $200,000. Architect not announced.

Wis., Green Bay—Hospital—Methodist Deaconess Hospital Assn. plans to build 3 story, rein.-con., brick and tile addition. About $110,000. Bellin-Buchanan, Bellin-Buchanan Bldg., doctors. Architect not selected.

Wis., Janesville—High School—Bd. Educ. having plans prepared by Van Ryn & De Gelleke, archts., Caswell Blk., Milwaukee, for superstructure of 3 story, 180 x 200 ft., rein.-con. and brick. About $500,000.

Wis., Kaukauna — Lodge — Kaukauna Loyal Order of Moose plans to build 2 and 3 story, 60 x 130 ft., rein.-con., tile and brick, concrete foundation, on Lowe St. About $75,000. Architect not selected.

Wis., Kenosha—Hotel—W. W. Ahlschager, archt., 65 East Huron St., Chicago, receives bids about March 1, building Algonquin Hotel, 10 story, 95x132 ft., rein.-con., rein.-con. flooring, concrete foundation, for Sheridan Hotel Co., here. About $1,500,000. Noted Oct. 14.

Wis., La Crosse—Home—Organized Catholic Charitable Assn., 608 South 11th St., conducting campaign to raise $5,000,000 funds to build home for aged, etc. A. Schwebach, bishop. Architect not announced.

Wis., Mendota—Schools—Bd. Educ. having plans prepared by E. T Tough, archt., 24 East Mifflin St., Madison, for remodeling high and grade schools and building 2 story, 40 x 80 ft. and 21 x 80 ft. additions to same, rein.-con. and brick. About $100,000. T. M. Risk, clk.

Wis., Merrill—Office—See "Industrial Works."

Wis., Milwaukee—Bank—Wisconsin State Bank, 508 11th Ave., having preliminary plans prepared by R. Messmer & Bros., archts., Majestic Bldg., for 1 story, 52 x 80 ft., concrete and brick, rein.-con. flooring, concrete foundation, on Greenfield Ave. About $100,000.

Wis., Milwaukee—Church—Evangelical Lutheran Church, 1168½ 25th Ave., having plans prepared by A. Dohmen, archt., 68 Wisconsin St., for 1 and 2 story, 56 x 120 ft. and 50 x 70 ft. concrete and brick, rein.-con. flooring, concrete foundation, on Layton Blvd. About $150,000.

Wis., Milwaukee—Natatorium—City having plans prepared by C. E. Malig, archt., City Hall, for 1 story, 50 x 100 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Prairie St. About $75,000. Noted Jan. 29.

Wis., Portage—Clubhouse—B. P. O. E 675 plan to build 3 story, 70 x 130 ft., concrete and brick, rein.-con. flooring, concrete foundation. About $100,000. M. Hettinger, secy. Architect and engineer not selected.

Wis., Sheboygan Falls—Office, Salesroom, etc.—See "Industrial Works"

Wis., Two Rivers—High School—J. D. Chubb, archt., 109 North Dearborn St., Chicago, receives bids about Jan. 1, building 3 story, 96x110 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, here, for Bd. Educ. About $400,000. Noted Nov. 25.

Wis., Valders—Office, etc.—See "Industrial Works."

Wis., Viroqua—Hospital—City having plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, for 2 story, 36x86 ft., rein.-con., brick and tile. About $125,000. L. Roseland, mayor.

Wis., Whitewater — Gymnasium — Bd. Educ. having plans prepared by Bentley Bros., engrs., Majestic Bldg., Milwaukee, for 2 story, 56 x 90 ft. concrete brick and steel, rein.-con. flooring, concrete foundation, on Main St. About $75,000.

Ia., Cedar Rapids—Court House and Jail—Linn Co. election Dec. 27, to vote $1,300,000 bonds to build 3 story, 12[illegible] ft., rein.-con., brick and tile, on island between 3d and 4th St. Bridges. J. W. R[illegible] Urbana, Ill., archt. Noted Dec. 2.

Ia., Cedar Rapids—High Schools—Bd. Educ. receives bids about Feb. 1, building 4 high schools, each 3 story, 100 x 2[illegible] rein.-con., brick, tile and stone. Total cost, $1,200,000. J. A. Motyl, secy. F. Tustison, 355 Auditorium Bldg., Minneapolis, Minn., engr. Hugh & Zalesky, 811 Securities Bldg., Des Moines, archts. Noted Nov. 18.

Ia., Council Bluffs—Church—First Baptist Church had plans prepared by W. [illegible] Jones, archt., 30 North La Salle St., Chicago, for 50 x 125 ft., brick and stone. About $150,000.

Ia., Davenport — Hall — Odd Fellows Lodge, 1720-4th Ave., plans to build 3 or 4 story, rein.-con., brick and tile, on 4th and Main Sts. About $350,000. Architect not announced.

Ia., Des Moines—Hospital—Salvation Army, South East 6th St. and Indianola Rd., had plans prepared by Sawyer & Watrous, archts., 401 Hippee Bldg., for 2 story, 54 x 136 ft., rein.-con., brick, tile and stone. About $150,000. W. Andrews, brigadier.

Ia., Dyersville—Bank—Arney Co., archts., 10 South La Salle St., Chicago, receives bids after Dec. 15, building 1 and 2 story, 22 x 150 ft., rein.-con. and brick, concrete foundation, for Farmers State Bank, here. About $75,000.

Ia., Gowrie—School—Bd. Educ. plans to build 2 story. About $155,000. Architect not selected.

Ia., Lytton—School—City voted $150,000 bonds to build school. Architect and engineer not selected.

Ia., Marshalltown — School — Bd. Educ. had plans prepared by Tyrie & Chapman, archts., 1206 2nd Ave. S., Minneapolis, Minn., and receives bids in spring, building 3 story, 34 x 148 ft., rein.-con. and brick. About $150,000. W. M. Clark, secy. C. L. Pillsbury Co., 1206 2nd Ave. S., Minneapolis, Minn., engs. Noted March 25.

Ia., Osage—Temple—Masonic Lodge having plans pepared by M. B. Cleveland, archt., 601 Natl. Bank Bldg., Waterloo, for 2 or 3 story, rein.-con. and brick. About $100,000.

Ia., Tripoli—School—Bd. Educ. had plans prepared and receives bids about Feb. 15, building 3 story, 64 x 100 ft., rein.-con., brick and tile grade and high schools. About $200,000. H. W. Bockhause, pres. Keffer & Jones, 204 Masonic Temple, Des Moines, archts.

Minn., Eveleth—Lodge—Elks Lodge, c/o E. Hatch plans to build 2 story, rein.-con., brick and stone, on Jones St. About $150,000. Architect not announced.

Minn., Mankato—High School—Bd. Educ. plans to build 2 or 3 story, rein.-con. brick, tile and stone. About $300,000. E. F. Searing, secy. Architect not selected.

Minn., Milaca—Hotel—H. J. Letford, St. Charles, plans to build rein.-con. and brick here. About $75,000. Architect not announced.

Minn., Minneapolis — Auditorium — Civic Music League, 2818 Oakland Ave., plans to build 10 story, rein.-con., brick, tile and stone. About $1,000,000. F. J. Mueller, pres. Architect not selected.

Minn., Minneapolis — Bank — Bankers Natl. Bank, 5th St. and Hennepin Ave., plans to construct bank building at 29-33 5th St. Cost several thousand dollars. C. L. Atwood, pres. Architect not announced.

Minn., Minneapolis — Library — Minneapolis Library Bd., 10th St. and Hennepin Ave., plans to build 2 or 3 story, rein.-con. brick and stone, on Hennepin Ave. and Groveland Terrace. Cost to exceed $1,000,000. D. D. Dayton, secy. Architect not selected.

Minn., Minneapolis—Theatre—Orpheum Theatre Corp., 190 North State St., Chicago, having revised plans prepared by Kirchoff & Rose, archts., Majestic Bldg., Milwaukee, Wis., for theatre on Hennepin Ave. and 9th St. New plans call for decrease in size. About $600,000. M. Beck, mgr.

Minn., Northfield—Dormitory—Carleton College receives bids in spring building 4 story, 40 x 100 ft. rein.-con., brick and tile addition. About $300,000. D. J. Cowling, pres. Holmes & Flinn, 8 South Dearborn St., Chicago, Ill., archts. Noted Oct. 21.

Buildings (Continued)

Kan., Coffeyville—Hotel—Chamber Commerce having plans prepared by Shepard & Wiser, archts., Long Bldg., Kansas City, Mo., and receives bids about March 15, building 5 story, 100 x 140 ft. rein.-con., rein.-con. flooring. About $300,000.

Neb., Columbus—Hospital and Chapel—St. Marys Hospital had plans prepared by C. Wurdeman, archt., Columbus, for 5 story, 44 x 81 ft. addition to hospital, and 40 x 90 ft. chapel, rein.-con. and brick. Address Sister Superior Aegidia.

Neb., Fremont—Seminary—Midland College plans to build 2 story, Theological Seminary on Military Ave. About $100,000. Architect not selected.

Neb., McCook — Hospital — Dominican Sisters plan to build hospital. About $100,000. Architect not selected.

Neb. Nebraska City—City Hall—City voted $100,000 bonds to build city hall.

S. D., Flandreau—School—Bd. Educ. plans to build 2 story, rein.-con. and brick. About $125,000. H. S. Morgan, supt. Architect not selected.

S. D., Miller — Temple — Masonic Temple Assn. had plans prepared by Edwins & Edwins, archts., 911 Northwestern Bldg., Minneapolis, Minn., for 2½ story, 40x90 ft., rein.-con. and brick. About $125,000.

S. D., Sioux Falls—Passenger Station—See "Railways" under South Dakota.

S. D., Spencer—Temple—Masonic Order plans to build rein.-con., tile, and brick. About $125,000. Architect not announced.

N. D., Underwood—High School—Bd. Educ. soon receives bids building 2 story, rein.-con. and brick. Election soon to vote on $100,000 bonds for project. E. Espy, pres. W. D. Gillespie, 64½ Bway., Fargo, archt.

Mo., Kansas City—Synagogue—Keneseth Israel congregation, 1425 Locust St., having plans prepared by S. H. Kurliss, archt., Scarritt Bldg., for 1 story, 75x120 ft., brick, stone and steel, on 34th and Paseo Sts. About $200,000.

Mo., Springfield—Temple—Shrine Temple Bd. Trustees plans to build temple. About $250,000. C. G. Mark, Landers Bldg., secy. Architect not selected.

Wash., Spokane—Armory—State Armory Bd. will ask State Legislature (Olympia), to appropriate $200,000 to enlarge armory here. Preliminary plans call for 3 story, 50 x 155 ft. addition on west end of building, and third story will also be built on east end of armory. J. Zittel, Jaimeson Bldg., archt.

Cal., Azusa — School — Azusa and Glendora School Dists. election Dec. 14 to vote on $300,000 bonds to purchase site and erect building for Citus Union High School. J. C. and W. H. Austin, 1125 Baker-Detwiler Bldg., Los Angeles, archts.

Cal., Bakersfield—Temple—Masonic Order had plans prepared by C. Werner, archt., Humboldt Bank Bldg., San Francisco, for 4 story, concrete, 58 ft. high, covering lot 122 x 152 ft. on 18th St., here. About $200,000.

Cal., Carmarillo—School—Pleasant Valley School Dist., retained M. Marston, archt., 535 I. W. Hellman Bldg., Los Angeles, to prepare plans for school 6 room, tile, concrete foundation. About $75,000.

Cal., San Pedro—Hotel—J. D. Evans preparing plans for 7 story, on 10th and Leland Sts. About $1,000,000. Private plans.

Cal., Sawtelle — Hospitals—Natl. Headquarters for Soldiers Home, New Court House, Dayton, soon receives bids building two 2 story, 54 x 364 ft. rein.-con., here. W. A. Munsell, 414 Stimson Bldg., Los Angeles, archt.

Ont., Ft. William—Club House—Canada Iron Foundries Ltd., receives bids in March building concrete and brick concrete foundation. About $75,000. Private plans.

BIDS DESIRED

Mass., Boston—Office—Chamber of Commerce, 177 Milk St., receiving sketches for 12 story, 100 x 184 x 184 ft. concrete and steel, rein.-con. foundation, on Federal Franklin and Congress Sts. About $6,500,000. Architect and engineer not selected.

Conn., Hartford—School—Until Dec. 15, by Northwest School Dist. building 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Holcomb St. About $235,000. W. D. Johnson, 174 Bond St., archt. Noted Oct. 21.

N. Y., Yonkers—High School—Bd. Educ. receiving sketches for 60 room high school. Address E. Yerks, chn. com. on architecture and construction.

N. J., Camden—Clubhouse—J. E. Fieldstein, archt., Pennfield Bldg., Phila., receiving bids building 3 story, 40 x 108 ft., brick, here, for B. P. O. E., c/o architect. About $100,000.

Pa., Phila—Nurses Home—Until Dec. 20, by F. R. Watson, archt., 1211 Walnut St., building 5 story, 84 x 161 ft., concrete and brick, for St. Agnes Hospital, Broad and Mifflin Sts.

Md., Baltimore—School—Until Dec. 15, by Bd. Awards, building 3 story, 76 x 271 ft. brick and stone, concrete foundation, on Latrobe Park and Fort Ave. About $300,000. O. G. Simonson, Maryland Casualty Tower, archt. H. F. Adams, 1261-69 Calvert Bldg., engr. Noted Nov. 4.

Md., Prince Frederick—High School—Until Jan. 15, by W. M. Gieske, archt., 65 Gunther Bldg., Baltimore, building 3 story, 54 x 88 ft., mill construction, stone foundation, here for Bd. Educ. About $75,000.

D. C., Wash.—School—Until Dec. 17, by Dist. Comrs., Dist. Bldg., constructing 8 room addition to Takoma Park School 118, Piney Branch Rd. and Dahlia St.; advertised in this issue. Noted Oct. 28.

Fla., Ft. Myers—School—Until Jan. 3, by Lee Co. School Bd., building 2 story, 60 x 100 ft. brick, rein.-con. flooring. J. D. McFerron, supt., F. J. Kennard, 409 Amer. Bank Bldg., Tampa, archt.

Ky., Paducah—Schools—Until Dec 15, by Bd. Educ., building Augusta Tilghman High School, also Lincoln and Franklin Grade Schools, brick and stone. About $200,000. Nevin, Henry & Wischmeyer, 1317 Starks Bldg., Louisville, archts.

O., Cleveland—Bank and Office—T. M. James Co., archts. and engrs., 501 Blackstone Bldg., receiving bids building 6 story, 65 x 120 ft., concrete, brick and stone, brick and concrete foundation, on East 79th St. and Euclid Ave., for Lake Shore Banking & Trust Co., Osborn Bldg. About $750,000.

Ind., Evansville—Schools—Miller, Fullenwider & Dowling, archts., 6 North Michigan St., Chicago, receiving bids building two 3 story, one 70 x 120 ft. and other 108 x 174 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, for Evansville College. About $400,000.

Ind., North Salem—School—G. Sellers, trustee, receiving bids building 2 story, 10 room, 77 x 78 x 152 ft., brick and stone. About $100,000. R. F. Daggett, 962 Lemcke Annex, Indianapolis, archt. R. W. Nolan, Lafayette, engr.

Mich., Allegan — High School — J. D. Chubb, archt., 109 North Dearborn St., Chicago, receiving bids building 3 story, 100 x 155 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, here, for Bd. Educ. About $175,000. Noted Jan. 8.

Mich., Detroit—Market—Until Dec. 15, by Rogers, Bonnah & Chaffee, archts., 528 Farwell Bldg., constructing 1 story, 100 x 100 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Cadillac Sq., for T. Barlum & Sons. About $75,000. Noted Nov. 11.

Mich., Pontiac—Jail—Until Jan. 3, by Oakland Co., building 4 story, 44 x 170 ft. About $320,000.

Ill., Chicago—Church and Social Center—E. E. Hall, archt., 123 West Madison St., receiving bids building 1 and 2 story, 123 x 140 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Ellendale and Greenview Aves., for Evangelical Lutheran Immanuel Church, c/o architect. About $400,000. Noted Nov. 11.

Ill., Chicago—Exchange—Holabird & Roche, archts., 104 South Michigan Blvd., receiving bids building Oakland Exchange, 3 story, 100 x 150 ft., rein.-con., rein.-con. flooring, concrete foundation, on 44th and Drexel Sts., for Chicago Telephone Co., 212 West Washington St. About $250,000. Noted July 22.

Ill., Chicago—Office—Union Liberty Co., c/o W. W. Ahlschlager, archt., 65 East Huron St., receiving bids building 15 story, 60 x 80 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Clark St., near Washingion St. About $400,000.

Wis., Iron Belt—School—Until Jan. 15, by Chairman School Bd., building 2 story, 75 x 100 ft. grade and high school, brick, rein.-con. flooring and foundation, to include gymnasium and auditorium. About $80,000. Kelly & Sheffelsik, Alworth Bldg., Duluth, Minn., archts. and engrs.

Wis., Milwaukee—Commercial—Until Dec. 16, by Lesser & Schutte, archts., 68 Wisconsin St., building 5 story, 20 x 130 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, for J. and S. Polacheck, 250 West Water St. About $75,000.

Ia., Pocahontas—High School—Until Dec. 30, (change of date), by Bd. Educ., building 2 story, 56 x 110 ft., rein.-con., brick and stone. About $150,000. F. Jensen, secy. W. E. Hulse & Co., 309 Securities Bldg., Des Moines, archts. Noted Nov. 25.

Minn., Aitkin—Court House—Until Jan. 2, by H. O. Beecher, aud. Aitkin Co., building 2 story, 140x190 ft. rein.-con., brick and steel, reinf.-con. flooring and foundation. About $250,000. Tolz, King & Day, 1410 Pioneer Bldg., St. Paul, archts. and engrs. Noted Oct. 28.

Minn., Fergus Falls—Armory—Until Jan. 15, by J. Townley, secy. Bd. State Militia, (Fergus Falls), building 2 story, 100 x 175 ft. brick and steel, rein.-con. flooring and foundation for State Militia Dept., St. Paul. Dennis & Knowles, Fergus Falls, archts. and engrs.

N. D., Englevale—School—Until Dec. 20, by Bd. Educ., building 2 story, rein.-con., brick and tile. About $75,000. H. I. Ameck, pres. G. L. Horton, Citizens Natl. Bank Bldg., Minneapolis, Minn., archt.

Mo., St. Louis—Hotel—Until Jan. 15, by T. P. Barnett, archt., Arcade Bldg., constructing 12 story, 50x200 ft., rein.-con., brick and steel addition, rein.-con. flooring, on 12th and Locust Sts., for Jefferson Hotel Co. About $1,200,000. T. Hays, mgr. Noted Sept. 9.

Mo., Springfield—Church—Until Jan. 1, by Heckenlively & Mark, archts., 426 Landers Bldg., building 2 story, brick and stone, brick foundation, on Cherry Rd. and Jefferson St., for Grace Methodist Episcopal Church. About $100,000.

Tex., Denison—Hotel—E. E. Hall, archt., 123 West Madison St., Chicago, receiving bids building 5 story, 150 x 150 ft., rein.-con., rein.-con. flooring, concrete foundation, on Woodard and Burnett Sts., for Chamber of Commerce. About $400,000. Noted Oct. 14.

Col., Ft. Collins—Clubhouse—Until Jan. 2, by Bd. Trustees Colorado Agricultural College, building 2 story, 108x160 ft., concrete, brick and stone, rein.-con. flooring, concrete foundation. About $125,000. E. Groves, 222 Foster Bldg., Denver, archt. Noted Sept. 30.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Amherst**—Club—Theta Delta Chi Fraternity, Amherst College, let contract building 2 story, 32 x 56 ft. with 24 x 57 ft. and 21 x 38 ft. ells, brick, concrete foundation, on Northampton Rd. and Lincoln Ave., to Ranger-Casper Constr. Co., 293 Bridge St., Holyoke.

★**N. Y., Brooklyn**—Stores—J. Balzarini, c/o Brook & Sackhein, archts. and engrs., 26 Court St., let contract constructing several 1 story, brick, stone and steel buildings, brick foundations, on plot of 160 x 250 ft., on Flatbush Ave. near Dorchester Rd., to E. G. Vail, 189 Montague St. About $75,000.

★**N. Y., Brooklyn**—Theatre—Glenwood Theatre Corp., 408 Knickerbocker Ave., will build brick and steel, brick foundation. About $80,000. Work will be done by day labor.

★**N. Y., New York**—Loft—D. Belais, c/o V. C. Farrar, archt. and engr., 4 East 39th St., will build 3 story, 25 x 100 ft., brick and stone, brick foundation, at 137 West 14th St. About $75,000. Work will be done by day labor.

★**N. Y., New York**—Restaurant and Office—C. W. Lyons, 38 West 33rd St., let contract altering 4 story, brick and stone, at 38 West 33rd St., to C. L. Fraser, 103 Park Ave. About $80,000.

★**Md., Baltimore**—Community—Sharp St. Memorial Methodist Episcopal Church, 1206-10 Etting St., let contract building 5 story, 41 x 79 ft. brick, concrete foundation, to H. N. Barnes, Franklin and Calvert Sts.

Buildings (Continued)

★**Tenn., Kingsport**—Housing—Kingsport Farms Co. Inc. will build 38 rein.-con., brick and steel houses, brick foundations. About $100,000. Work will be done by day labor under supervision of Litchfield & Rogers, archts. and engrs., 2 East 41st St., New ork City. Noted Nov. 4.

★**O., Akron**—Theatre and Office—L. Miller, 579 Euclid Ave., let contract building 3 story, brick and concrete, on Portage and Front Sts., to Portage Constr. Co., Akron. About $200,000.

★**O., Cleveland**—Bank and Commercial—Lakeshore Banking & Trust Co., Osborn Bldg., let contract building 1 story, 68 x 80 ft. brick and steel brick foundation, at 3475 East 93rd St., to R. Black, 1419 St. Clair Ave. About $75,000.

★**O., Cleveland**—Office—Cleveland Land & Security Co., Union Bldg., will construct brick and stone, concrete foundation. About $300,000. Work will be done by day labor.

★**Mich., Detroit**—Hospital—Evangelical Deaconess Home, Jefferson Ave., let masonry contract building 2 story, 40 x 105 ft. rein.-con., brick and stone, rein.-con. flooring, brick foundation, to W. S. Pocock, 515 Hammond Bldg. About $75,000. Noted Sept. 16.

★**Mich., Detroit** — Temple — Ionic Lodge of Masons, Lawton and Grand River Aves., let masonry contract for 3 story, 90 x 100 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Grand River Ave. and Chope Pl., to W. S. Pocock, 515 Hammond Bldg.

★**Ill., Amboy**—Bank—D. H. Burham & Co., archts., 209 South La Salle St., Chicago, let contract to W. J. Zitterell Co., Webster City, Ia., building 1 and 2 story, 50x110 ft., concrete and brick, concrete foundation, for 1st Natl. Bank. About $100,000. Noted June 29.

★**Ill., Chicago** — Church — North Shore Baptist Church, c/o S. M. Seator, archt., 35 North Dearborn St., let masonry contract for 2 story, 110x125 ft. brick and concrete, concrete foundation, on Lakewood and Berwyn Aves., to C. A. Juhl, 7759 St. Lawrence Ave.; carpentry, to Northern Constr. Co., c/o architect. Total cost, $300,000. Noted Nov. 25.

★**Ill., Chicago**—Theatre and Office—Selwyn Theatre Corp., 229 West 42d St., New York City, let contract building brick, steel and stone, brick foundation, here, to Longacre Constr. Co., 127 North Dearborn St. About $1,000,000.

★**Ia., Pocahontas**—Court House—Pocahontas Co. let contract building 2 story, 80x125 ft., rein.-con., brick and stone, to A. H. Neumann Co., 519 Hubbell Bldg., Des Moines, $354,881. Noted Dec. 2.

★**Mo., St. Louis**—Church and School—St. Philips Church, 5030 Thekla Ave., will build 2 story, 70 x 125 ft., rein.-con. and brick, at 5036 Thelka Ave. About $75,000. Work will be done by day labor under supervision of P. J. Bradshaw, archt., International Bldg.

★**Ont., West Toronto** — Restaurant and Office—Childs Co., 200 5th Ave., New York City let contract building 6 story, 50 x 175 ft. brick, steel and stone, at 9 King St., to Dickie Constr. Co., Ryrie Bldg., Toronto. About $200,000. Noted Nov. 18.

Federal Government Work

PROPOSED WORK

N. Y., L. I., Amagansett—Radio Compass Stations—Spec. 4338, 4339 and 4340—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build 3 radio compass stations, here.

D. C., Wash.—Concrete Roads, etc.—Spec. 4336—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build 5,575 sq.yd. 1 course plain concrete roads, complete drainage system in connection with same, rein.-con. retaining wall and electric duct system.

Va., Quantico—Guard House, General Service Building, etc.—Spec. 4334—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct guard house and general service building with observation tower, also improve existing carpenter shop, machine shop, storehouse and photo-laboratory, etc., at Marine Flying Field, here.

Oregon—Road Work—U. S. Forestry Bureau, Div. Office, Portland, rejected bids received Oct. 8, improving and building 2 steel bridges on Mt. Hood Loop Project, Hood River Sect. C. H. Purcell, Portland, U. S. dist. eng. Noted Oct. 21.

Cal., San Diego—Buildings—L. Rogers, U. S. Navy, Winchester Bldg., Roscerans and Lytton Sts., preparing plans for new buildings at Naval Training Station. Cost to exceed $50,000.

BIDS DESIRED

Me., Bar Harbor—Electric Distribution System—Spec. 4341—Until Dec. 22, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing at Naval Radio Station, at Otter Cliff, here. Noted Dec. 2.

Mass., Woods Hole—Boiler and Storage House—Until Dec. 28, by Dept. of Commerce, Bureau of Fisheries, building at Fisheries Station.

Pa., Corby — Mailing Vestibule — Until Dec. 28, by Treas. Dept., Wash., D. C., extending, at U. S. Post Office, here. J. A. Wetmore, superv. archt.

Pa., Phila.—Hot Water Piping—Until Jan. 3, by Treas. Dept., Wash., D. C., installing new hot water piping in U. S. Mint, here.

Pa., Phila.—Steel Dump Scows—Until Dec. 31, by U. S. Engineers, here, furnishing and delivering 5 steel dump scows; advertised in this issue. Noted Nov. 25.

D. C., Wash.—Mechanical Equipment—Until Dec. 22, by Treas. Dept., Wash., D. C., furnishing mechanical equipment for hospital buildings E-F, boiler house kitchen and laundry buildings; changes and additions in Unit D and in house of Officer in charge; electric conduit and wiring in tunnels connecting Units A, B, C and D, and E-F; also removing certain plumbing in Units B and C, extending outside lighting and power feeders of U. S. Pub. Health Serv. Hospital No. 32, at 2650 Wisconsin Ave. J. A. Wetmore, acting superv. archt.

D. C., Wash.—Separation of Water Drainage Systems—Until Dec. 22, by Treas. Dept., separating sanitary from storm water drainage system and installing permanent light and power feeders at U. S. Auditor's Bldg. J. A. Wetmore superv. archt.

Va., Norfolk—Conduit—Until Dec. 16, by U. S. Engineer, Custom House, here, building rein.-con. conduit in Appomattox River here; advertised in this issue. Noted Nov. 25.

Va., Norfolk — Dredging and Wharf — Until Jan. 7, by U. S. Engineer, dredging in Elizabeth River and building timber wharf; advertised in this issue.

W. Va., Charleston—Mezzanine Floor—Until Dec. 28, by Treas. Dept., Wash., D. C., building, here. J. A. Wetmore, superv. archt.

N. C., Charlotte—Electric Elevator—Until Dec. 27, by Treas. Dept., Wash., D. C., installing in Post Office, here. J. A. Wetmore, superv. archt.

N. C., Charlotte—Mailing Vestibule, etc. —Until Dec. 27, by Treas. Dept., Wash., D. C., installing in Post Office, here. J. A. Wetmore, superv. archt.

S. C., Charleston—Improving Boiler Plant —Spec. 4252—Until Dec. 29, by Treas. Dept., Wash., D. C., improving, here. J. A. Wetmore, superv. archt. Noted July 29.

Ky., Covington — Conduit, Wiring, etc. — Until Dec. 21, by Treas. Dept., Wash., D. C., installing conduit, wiring, lighting fixtures, etc., in Post Office and Court House, here. J. A. Wetmore, superv. archt.

La., New Orleans—Dredging—Until Jan. 10, by U. S. Engineer, 329 Custom House Bldg., here, dredging Intracoastal Waterway; advertised in this issue. Noted Aug. 19.

Kan., Wichita—Dumb Waiter—Until Dec. 22, by Treas. Dept., Wash., D. C., installing in Post Office, here. J. A. Wetmore, suprv. archt.

Ind., Kokomo—Mailing Vestibule, etc.—Until Dec. 27, by Treas. Dept., Wash., D. C., constructing, here. J. A. Wetmore, acting superv. archt.; advertised in this issue.

Ill., Decatur—Mezzanine Floor—Until Dec. 27, by Treas. Dept., Wash., D. C., building, in U. S. Post Office, here. J. A. Wetmore, superv. archt.

Wis., Beloit — Mezzanine Floor — Until Dec. 29, by Treas. Dept., Wash., D. C., building in Post Office, here. J. A. Wetmore, superv. archt.

Kan., Wichita—Remodeling Post Office—Until Dec. 22, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

Mo., Joplin—Post Office—Until March [illegible] by U. S. Government, Wash., D. C., building 2 story, 50 x 100 ft., stone addition, on [illegible] and Joplin Sts., here. About $250,000. W. Kirkpatrick, postmaster.

Mo., St. Louis—Earthwork—Until [illegible] 22, by Secretary Mississippi River Co[illegible] 1311 International Life Bldg., constructi[illegible] earthwork in Sny Island Levee D. D., [illegible] advertised in this issue. Noted Dec. 2.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Niagara Falls — Electric Dumb Waiter—Treas. Dept., Wash., D. C., received bids installing in Post Office, here, from Elevator Supplies Co., 1515 Willow Ave., Hoboken, N. J., $2,680; Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave., Cincinnati, O., $3,565; Braas Bros. Co., 111[illegible] Whiteney Ave., $4,325.

★**N. Y., Oswego**—Altering Post Office and Custom House—Treas. Dept., Wash., D. C., let contract, altering, here, to Garber & Cissell, Bethlehem, Pa., $14,500. Noted Dec. 2.

★**Pa., Allentown**—Mezzanine Floor, etc.—Treas. Dept., Wash., D. C., let contract building in Post Office and Court House, here, to Garber & Cissell, Bethlehem, Pa., $4,700. Noted Nov. 25.

Md., Annapolis—Repainting Structure—Spec. 4329—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Nov. 24, repainting at Naval High-Power Radio Station, Greensbury Point, here, (1) work complete, from Fairfax Bros., Geneva, N. Y., (1) $3,808 (30 days), (2) $300, (3) $472, (4) $80, J. P. Sullivan, 4515 Indiana Ave., Chicago, Ill., (1) $3,881 (30 days), (2) $120, (3) $1,000, (4) $72; Tyler & Kane, 281 1st St., East Port, (1) $5,000 (40 days), (2) $800, (3) $690, (4) $85. Noted Nov. 11.

Va., Norfolk—Steam Distributing System—Spec. 4255—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Dec. 1, installing, here, from Enterprise Steam & Hot Water Heat Co., 600 North Howard St., Baltimore, Md., $44,450 (120 days); G. W. Cornell Co., 45 East 17th St., New York City, $51,220 (120 days); Carroll Electric Co., 714 12th St., $55,460 (120 days). Noted Nov. 25.

★**Va., Quantico**—Incinerator—Spec. 4266—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to King Lumber Co., Inc., Preston Ave., Charlottesville $42,200 (150 days). Noted Dec. 2.

Ind., Ft. Wayne—Mezzanine Floor, etc.—Treas. Dept. Wash., D. C., received bids Nov. 30, building in Post Office, here, from G. E. Wright, Inc., Chicago, Ill., $5,750; F. J. Rump & Son, 2411 South Wayne Ave., $5,923; M. Irmscher & Son, 2103 Forest Park Blvd., $9,370. Noted Nov. 18.

Mich., Lansing—Elevator—Treas. Dept., Wash., D. C., received bids Nov. 30, installing freight elevator in Post Office, here, from Kimball Bros. Co., 23 West 37th St., New York City, $5,825 (90 days); Otis Elevator Co., Metropolitan Bank Bldg., Wash., D. C., $5,941 (120 days); Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave., Cincinnati, O., $7,300 (90 days); Noted Nov 18.

Ill., Chicago — Mezzanine Floor — Treas. Dept., Wash., D. C., received bids Dec. 2, building in Post Office, here, from Ford & Phillips, 723 South Wells St., $13,998 (90 days); W. J. Scown Bldg. Co., 36 West Randolph St., $14,500 (120 days); G. F. Meyne, 127 North Dearborn St., $14,797 (75 days). Noted Nov. 18.

Ill., Rockford—Freight Elevator—Treas. Dept., Wash., D. C., received bids Dec. 1, installing in Post Office, here, from Otis Elevator Co., Metropolitan Bank Bldg., Wash., D. C., $5,775 (110 days); Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave., Cincinnati, O., $6,850; Pitt Eng. Co., 120 West Kinzie St., Chicago, $7,500 (90 days). Noted Nov. 18.

★**Ill., Springfield**—Lighting, Wiring, etc. —Treas. Dept., Wash., D. C., let contract furnishing, wiring, conduit, etc., in Post Office, here, to J. B. Schoels, 216-20 South 4th St., $2,666. Noted Nov. 11.

Cal., San Diego — Refrigerating Equipment—Spec. 4303—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Dec. 1, installing refrigerating equipment and cold storage insulation at Naval Base

Federal Government Work (Continued)

Marine Barracks, here, (1) work complete, from York California Constr. Co., 308 Boyd St., Los Angeles, (1) $50,985 (120 days), (2) $23,995, (3) $27,990. Noted Nov. 11.

H. T. Pearl, Harbor — Marine Railway — Spec. 4254—Pub. Wks. Officer, Navy Yard, Mare Island, Cal., received only bid Nov. 17, completing marine railway, from Ross Constr. Co., Forum Bldg., Sacramento, Cal., $261,500. Noted Oct. 14.

Miscellaneous

PROPOSED WORK

Stadium — Springfield, Mass. — Y. M. C. A. College, 287 Hickory St., plans to build rein.-con. stadium, with 25,000 seating capacity, on North Field. Architect not selected.

Golf Course—Whitneyville, Conn. (New Haven P. O.)—New Haven Country Club, Whitney Ave., plans to construct 18 hole golf course. About $45,000. Engineer not selected.

Gas Supply System—Rocky Mount, N. C. —City will sell $160,000 bonds Dec. 16, for gas supply system.

Pier, etc.—Jacksonville, Fla.—City plans to build pier, with warehouses, loading and discharging facilities, railroad tracks, cranes, engine, etc., in St Johns River. About $1,000,000.

Wharf — New Orleans, La. — Dock Bd. having plans and specifications made and soon receives bids building 1,200 ft. creosoted timber wharf, to replace one recently destroyed by fire. Loss $250,000. H. N. Gallagher, foot Canal St., ch. engr.

Pavilions—Crown Point, Ind. — See "Buildings."

Stadium — Ann Arbor, Mich. — Athletic Assn., care of R. W. Aigler, chn., having plans prepared by L. Gram, engr., for 100 x 400 ft. rein.-con. stadium, with 20,000 seating capacity on Ferry Field. About $120,000.

Lock and Dam—Chicago, Ill.—F. I. Bennet, dir. Pub Wks., 25 East Jackson Blvd., rejected bids received Nov. 22, building Starved Rock Lock and Dam, on Illinois River, near Utica. Work will be readvertised in 6 or 8 weeks. Noted Dec. 2.

Tractor and Grader—Alma, Wis.—Buffalo Co. appropriated $6,000 to purchase large tractor and grader. J. Reinhart, Nelson, comr.

Motor Patrol Grader, Trucks, etc.—Appleton, Wis.—Outagamie Co. plans to purchase 1 motor patrol grader, 3 trucks and 1 snow plow. A. G. Brusewitz, comr.

Road Equipment—Barron, Wis.—Barron Co. appropriated funds to purchase road equipment, to include new camp equipment, graders and possibly more tractors and trucks. E. Gleason, comr.

Dam, Transmission Line, etc. — Benson, Wis. (Randall P. O.)—J. D. Markham and A. Kelsey having plans prepared by Druar & Milinowski, engrs., 512 Globe Bldg., St. Paul, Minn., for concrete dam, 3,000 ft. long, 60-70 ft. high, also power plant and transmission line. About $2,000,000.

Road Machinery—Dodgeville, Wis.—Iowa Co. voted $8,000 bonds to purchase road machinery, to include 1 large grader, 12 wheelers, 6 patrol graders and 1 large tractor. C. Wonn, comr.

Road Machinery, etc.—Hayward, Wis.—Sawyer Co. appropriated $4,000 to purchase patrol and road machinery for 1921. E. J. Collett, comr.

Patrol Machinery—Jefferson, Wis.—Jefferson Co. appropriated $9,000 bonds to purchase patrol machinery. R. D. Royce, Ft. Atkinson, comr.

Trucks, Tractor, etc. — Kenosha Wis. — Kenosha Co. voted $20,000 bonds to purchase 2 trucks, tractor, snow plow and tractor-grader. J. Herzog, comr.

Road Machinery, Madison, Wis.—Dane Co. appropriated $15,000 to purchase road machinery including crusher, screen, etc. F. M. Lipke, comr.

Road Machinery—Manitowoc, Wis.—Manitowoc Co. appropriated $4,000 to purchase road machinery for 1921. F. Muth, comr.

Road Machinery—Mauston, Wis.—Juneau Co. appropriated $8,000 to purchase road machinery, to include small tools and stone crusher. A. V. Robison, New Lisbon, comr.

Road Machinery—Marinette, Wis.—Marinette Co. voted $5,000 bonds to purchase road machinery, including wheeled scrapers. A. Eklund, Peshtigo, comr.

Road Machinery—Medford, Wis.—Taylor Co. appropriated $10,000 to purchase road machinery for 1921. C. Keinhofer, comr.

Road Machinery—Menomonie, Wis.—Dunn Co. appropriated $10,000 to purchase road machinery, to include rock crusher and heavy tractor. F. Stewart, comr.

Crushing Plant, etc.—Merrill, Wis.—Lincoln Co. appropriated $7,000 to purchase crushing plant and road machinery.

Trucks, etc.—Neillsville, Wis.—Clark Co. appropriated $23,000 to purchase 3 trucks and small machinery. W. C. Thoma, comr.

Road Machinery—Oconto, Wis.—Oconto Co. appropriated $5,000 to purchase road machinery for 1921. P. Peetz, comr.

Lighting System — Oshkosh, Wis. — Bd. Pub. Wks. plans to install ornamental lighting system, to include 203 lamps. About $75,000. W. F. Porath, chn. W. A. Baehr, c/o Peoples Gas Light & Coke Co., 122 South Michigan Ave., Chicago, engr.

Patrol Tractors, etc.—Rhinelander, Wis. —Oneida Co. appropriated $5,000 to purchase 2 patrol tractors and 1 crushing plant. F. E. Parker, comr.

Road Machinery—Richland Center, Wis. —Richland Co. voted $7,000 bonds to purchase road machinery, to include 1 large truck, 1 cement mixer, 6 or 8 patrol graders, drags and planes. W. V. Robinson, comr.

Gravel Loader — Stevens Point, Wis. — Portage Co. voted $3,000 bonds to purchase gravel loader. T. E. Cauley, comr.

Road Machinery—Superior, Wis.—Douglas Co. appropriated $10,000 to purchase road machinery. C. D. Conkey, Jr., comr.

Wheelers and Gravel Loading Outfit—Wautoma, Wis.—Waushara Co. appropriated $5,000 to purchase some wheelers and gravel loading outfit. F. Grimm, comr.

Lighting System — Sauk Center, Minn. — City plans election to vote on $15,000 bonds to improve lighting system. J. F. Cooper, clk.

Improving Electric Light System—Oldham, S. D.—City voted $25,000 bonds to improve electric light system.

Dredge—Caldwell, Idaho—See "Excavation & Dredging."

Dam—Los Angeles, Cal. — City, in cooperation with Los Angeles Co. (assisted by flood control funds available from originally planned Hutchins dam in Pacoima canon), plan to construct 385 ft. high gravity dam, impounding 12,000 acre ft. of water; project will be known as Pacoima Dam. About $1,500,000. J. W. Regan, Court House, engr.

BIDS DESIRED

Wall—Seneca Falls, N. Y.—Until Jan. 4, by E. S. Walsh, supt. Pub. Wks., Capitol, Albany, building concrete cut-off wall at north end of Dam No. 2, here, Contr. V; advertised in this issue.

Pier—Phila., Pa.—Until Dec. 28, by G. F. Sproule, dir. dept Wharves, Docks & Ferries, 550 Bourse Bldg., constructing Chestnut St. Pier 4, South Delaware River; advertised in this issue.

Platform—Phila., Pa.—Until Dec. 14, by Dept. City Transit, 12th and Chestnut Sts., building concrete platform for Front and Fairmont Sta. on Frankford "L". Cost to exceed $25,000.

Brick, Cement and Sand—Clayton, Mo.—Until Dec. 14, by W. Elbring highway engr. St. Louis Co., furnishing 15,000 sq.yd. wire cut lug brick and 5,000 sq.yd. wire cut lug Hillside brick; 38,000 bbl. Portland cement and 11,000 cu.yd. Mississippi River or Meramec River sand.

Pumping Machinery—Prince Albert, Sask. —Until Dec. 18, by E. F. Webb, city clk., furnishing and supervising erection of following pumping machinery: (a) 1 horizontal centrifugal pump, capacity 1,400 imperial gal. per minute, 50 ft. head direct connected to A. C. electric motor, alternative; 1 pump as above only without electric motor: (b) 1 horizontal centrifugal pump capacity and head as above, direct connected to steam turbine: (c) 1 horizontal centrifugal pump, capacity 1,400 imperial gal. per minute, 190 ft. head, direct connected to A.C. electric motor: (d) 1 horizontal centrifugal pump, capacity 700 imperial gal. per minute, 190 ft. head, direct connected to A.C. electric motor: (e) 1 horizontal centrifugal pump, capacity 1,400 imperial gal. per minute, 190 ft. head, direct connected to steam turbine; (f) 2 vertical centrifugal pumps only, capacity 500 U. S. gal. per minute, 40 ft. head, suitable for sewage pumping, and direct connection to A.C. motor.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Recreation Field—Proctor, Vt.**—Town let contract constructing recreation and athletic field, to Natl. Eng. Corp., 27 School St., Boston. About $25,000.

★**Underground Feeder—Mattapan** (Boston P. O.), **Mass.**—City let contract constructing underground feeder for electric lights on Consumptives hospital grounds, to Sterns, Perry & Smith, 31 Chardon St., Boston. About $15,000.

★**Removing Wharf — Plymouth, Mass.** — Pilgrim Tercentenary Comn., Tremont Bldg., Boston, let contract removing Pilgrim Wharf, raising present canopy which is over rock, and putting Pilgrim Rock on its original base, to Powers Bros., 163 North Montello St., Brockton, $16,980.

Refined Asphalt, Binder Stone, etc. — Brooklyn, N. Y.—E. Riegelmann, boro. pres., received bids Dec. 1, furnishing and delivering (1) 100,000 gal. refined asphalt, (2) 50,000 paving blocks, (3) 1,700 cu.yd. binder stone, (4) 1,000 cu.yd. gravel or broken stone, (5) 1,000 cu.yd. paving sand, from Warner-Quinlan Co., 79 Wall St., New York City, (1) $9,730; Standard Oil Co., 26 Hway., New York City, (1) $10,170; Hasting Pavement Co., 25 Broad St., New York City, (2) $6,045; Calvin-Thomnskin Co., (3) $4,658; Washington & Bulkley, (3) $4,675, (4) $3,350; W. Furgerson, (3) $5,355; T. F. Colgan, (4) $3,390; J. J. Guinan, (4) $3,700, (5) $1,820; C. A. Myers, (5) $1,750; J. W. Smith Municipal Bldg., New York City, (5) $1,750; Noted Nov. 23.

Granite Curbing, Wash., D. C.—Dist. Comrs. received bids furnishing 9,500 ft. granite curbing, from Stone Mountain Granite Corp., Stone Mt., Ga., $2.60 per lin. ft. (30 days) North Carolina Granite Corp., Mt. Airy, N. C., $2.50 lin. ft. (30 days).

Foundation, etc. — Detroit, Mich. — Fire Comn., Larned St., received bids building rein.-con. foundation for high pressure pumping station, including rein.-con. intakes and sewer outlets, etc., from Bryant & Detwiler Co., 2336 Dime Bank Bldg., $83,505; De Lisle & Cooper, Campau Bldg., $87,426; Candler Dock & Dredge Co., 305 Moffat Bldg., $123,621. Noted Nov. 11.

Wharf—Detroit, Mich.—City Fire Comn., Larned St., received bids building 335 ft. wharf, rein.-con. top, at foot of Randolph St., on Detroit River, from A. J. Dupuis, Ford Bldg., $160,889; Great Lakes Dredge & Dock Co., 104 South Michigan Ave., Chicago, $290,400; Amer. Constr. Co., Marion Bldg., Cleveland, O., $387,769. Noted Nov. 11.

★**Dam—Port Wing, Wis.**—See "Industrial Works."

★**Excavation and Concrete Walls—Denver, Col.**—Scottish Rite Consistory No. 2 let contract excavating for foundation for 3 story, 115x170 ft. cathedral, on 16th and Grant Sts., to Inter State Constr. Co., Denver; building concrete walls to grade line, to A. Stecker, Chamber Commerce Bldg. Both contracts awarded on percentage basis. Total cost $500,000. Noted Sept. 23 under "Buildings."

★**Heating, Ventilating and Plumbing Systems—Denver, Col.**—Bd. Educ. let contract installing heating and ventilating systems in Morey Jr. High School, on 13th and 14th Aves., Clarkson and Emerson Sts., to McCarty-Johnson Heating & Eng. Co., 1440 Curtis St., $90,075; plumbing to Johnson & Davis Plumbing & Heating Co., 427 15th St., $40,988. Noted Nov. 18 under "Buildings."

★**Wharf—Lords Cove, N. B.**—Dept. Pub. Wks., Ottawa, let contract building wharf on Deer Island, here, to F. L. Boone, South Devon. About $20,000.

★**Wharf—Owen Sound, Ont.**—Dept. Pub. Wks., Ottawa, let contract building wharf, here, to E. Conroy, Peterboro. About $18,000; cost plus percentage basis.

★**Coal Bunkers**—British Columbia—Canadian Pacific R.R., Windsor St., Montreal, Que., let contracts building coal bunkers at following places: Vancouver, to Vichens Contg. Co. Ltd., Dominion Bldg., Vancouver; Ruby Creek, to Nickson Constr. Co., 739 Hastings St. W., Vancouver; Notch Hill and Sicamous, to W. D. Grant, 1201 Georgia St., Vancouver; Revelstoke, to Simmons & Eby, Kerrisdale; Albert Canyon, to J. Forsyth & Co., 626 Pender St. W., Vancouver; Beavermouth, to S. E. Junkins Co., 837 Hastings St. W., Vancouver; Golden, to J. H. Simmons, 506 Confederation Life Bldg., Winnipeg, Man. Total cost, $100,000.

OFFICIAL PROPOSALS

Bids: Dec. 17.

Construction of the Belle Isle Bridge

Detroit, Mich.

Sealed proposals will be received for furnishing all labor and material, tools, equipment and other means of construction, all preliminary and temporary structures for facilitating or protecting the work necessary to construct the Belle Isle Bridge, or parts thereof, at the office of the Department of Public Works, Detroit, Michigan, until Friday, December 17th, 1920, at 11 o'clock a.m. (Eastern Standard Time), at which time and place they will be opened.

The proposed work consists in general in constructing a reinforced concrete bridge and approaches for the purpose of connecting the island known as Belle Isle, with the Detroit mainland, and is briefly described as follows:

The bridge consists of a series of twenty reinforced concrete cantilever arches with incline approaches at both ends. The arch spans vary in length from 52 feet 0 inches to 135 feet 0 inches, making a total of about 2,300 feet 0 inches for the bridge proper, and having a maximum clearance of 30 feet 0 inches above mean water level. The north or mainland approach is about 200 feet 0 inches long, and will join on to the south end of the Jefferson Avenue subway, now being completed. The south or Island approach consits of two curved inclines, each about 450 feet 0 inches long, which branch out symmetrically to the east and west, from the south abutment.

The work involves the following principal items and approximate quantities:

GROUP (A)

Excavation, wet and dry, cu.yd.	26,000
Wood piling, lin.ft.	345,000
Concrete, reinforced, including footings, cu.yd.	34,700
Reinforcing steel, lb.	903,000
Removal of old bridge piers	

Together with following miscellaneous items:

Docks, sewers, cofferdams, filling, etc.

GROUP (B)

Fabrication and erection of:

Structural steel tons	3,300
Bronze bearings, lb.	20,000

GROUP (C)

Excavation, wet and dry, cu.yd.	3,000
Wood piling, lin.ft.	74,000
Concrete, reinforced, cu.yd.	28,000
Reinforced steel, lb.	1,980,000
Waterproofing, sq.ft.	220,000
Sewers and drains	
Concrete paving base, sq.yd.	22,900
Electrical work	

Together with the following miscellaneous items:

Precast concrete lamp standards, balustrades, vases, manholes, sidewalks, filling, etc.

GROUP (D)

Metal handrailing, lin.ft.	4,160
Lamp frames	116

Copies of the modified contract, specifications and plans may be obtained at the office of Esselstyn, Murphy & Hanford, Engineers, 810 Marquette Building, Detroit, Michigan, upon making a deposit of Two Hundred and Fifty Dollars ($250.00), which sum will be refunded only upon the return of plans and specifications in good condition ten days after letting or rejection.

All bids will be compared on the basis of the Engineers' estimate of quantities of work to be done.

Contracts for the entire work may be awarded to one contractor, or divided according to the four main divisions, on which separate proposals are to be made.

Bidders must deposit with each of their proposals enclosed in separate envelopes, certified bank checks, payable to the order of the City of Detroit, for the following sums:

1. For proposal on Group A, Twenty-five Thousand Dollars ($25,000).
2. For proposal on Group B, Ten Thousand Dollars ($10,000).
3. For proposal on Group C, Twenty-five Thousand Dollars ($25,000).
4. For proposal on Group D, Two Thousand Dollars ($2,000).

Said checks to be returned to the bidder unless he fails to execute the contract or contracts should one or more be awarded him.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

A bond will be required for the faithful performance of each contract and a separate bond for the prompt payment in full of all just debts for labor and material incurred in the construction and improvement herein contemplated, each bond to be in the sum equal to 50 per cent of the total amount of the contract, the surety to be an incorporated surety company, satisfactory to the Department of Public Works of the City of Detroit.

The Department of Public Works expressly reserves the right to reject any or all proposals.

All proposals to be made in duplicate.

JOSEPH A. MARTIN,
Commissioner.

Nov. 23, 1920.

Bids: Dec. 13.

Paving

CONTRACTS No. 43 AND 44
BRONX PARKWAY COMMISSION
Bronxville, N. Y.

Sealed bids for paving Bronx River Parkway Drive between Duncomb Street, Williamsbridge, New York City, and Mount Vernon Avenue, Yonkers, N. Y., will be received by the Bronx Parkway Commission at its office 72 West Pondfield Road, Bronxville, N. Y., until 10:30 a.m., December 13, 1920.

Contract No. 43 embraces the section of Parkway Drive between Duncomb Street, Williamsbridge and East 233rd Street, Woodlawn, New York City.

Contract No. 44 includes the section of Parkway Drive between East 233rd Street, Woodlawn, New York City, and Mount Vernon Avenue, Yonkers, N. Y. The average width of Driveway pavement will be 40' between curbs. The total areas to be paved are as follows:

Contract No. 43—37,000 square yards.
Contract No. 44—34,450 square yards.

Bids will be received on the basis of paving the entire yardage with any of the following types of pavement:

(a) Asphalt block on a concrete base.
(b) Bituminous concrete on a concrete base.
(c) Bituminous macadam on a concrete base.

Bidders may submit alternative bids on any or all types as they may elect. The Commission expects to select the type of surfacing which will, in its judgment, give the greatest return for the money expended. The right is reserved to reject any or all bids.

Pamphlets containing information for bidders, form of proposal, specifications and contract drawings may be obtained by intending bidders at the above address by depositing $5.00 for each copy of pamphlet, including drawings.

BRONX PARKWAY COMMISSION
(By) JAY DOWNER,
Engineer and Secretary.

Dated, Bronxville, N. Y.
November 20, 1920.

Bids: Jan. 5.

Construction of Storm Relief Trunk Sewers and Lateral Relief Sewers

Lima, Ohio

Sealed proposals for the construction of Relief Trunk Sewers, Contracts Nos. 3 and 4, also the construction of Lateral Relief Sewers, Contracts Nos. 5, 6 and 7, will be received at the office of the Director of Public Service, Lima, Ohio, until 12 o'clock noon, Central Standard Time, Jan. 5, 1921, and will then be publicly opened and read. The City reserves thirty (30) days thereafter in which to act on the bids.

The work included under these contracts consists of construction, with all appurtenances, of Relief Trunk Sewers and Lateral Relief Sewers, as above mentioned, a general summary of quantities follows:

CONTRACT NO. 3

Total length of Sewer, about 6,100 lin.ft., varying in size from 27 to 60 in., all of Circular Section.

CONTRACT NO. 4

Total length of Sewer, about 6,430 lin.ft., varying in size from 12 to 30 in., all of Circular Section.

CONTRACT NO. 5

Total length of Sewer, about 8,425 lin.ft., varying in size from 12 to 48 in., all of Circular Section.

CONTRACT NO. 6

Total length of Sewer, about 2,540 lin.ft., varying in size from 12 to 24 in., all Circular in Section.

CONTRACT NO. 7

Total length of Sewer, about 4,720 lin.ft., varying in size from 18 to 30 in., all Circular in Section, together with all necessary appurtenances, special structures and manholes.

Copy of plans, form of proposal, contract, bond and specifications, may be inspected at any of the following offices: Director of Public Service, City Hall, Lima, Ohio; Fuller & McClintock, Valentine Building, Toledo, Ohio; Fuller & McClintock, 170 Broadway, New York City; B. F. Darling, Supervising Engineer, City Hall, Lima, Ohio.

Copies of plans and specifications, with form of proposal, contract and bond, may be obtained at the office of the Supervising Engineer, City Hall, Lima, Ohio. The following charge will be made for each set of plans and specifications:

Contract No. 3—Nine dollars ($9.00).
Contract No. 4—Seven dollars ($7.00).
Contract No. 5—Seven and 50/100 dollars ($7.50).
Contract No. 6—Six dollars ($6.00).
Contract No. 7—Seven dollars ($7.00).

No charge will be made for proposal blanks.

The Director of Public Service reserves the right to reject any or all bids, to waive any informalities in the bids received and to accept any bid which is deemed most favorable to the interest of the City of Lima, Ohio.

ELMER McCLAIN,
Director of Public Service.
B. F. DARLING,
Supervising Engineer.

Dated, Nov. 27, 1920.

Bids: Dec. 22.

Construction of Bridge

Elizabeth, N. J.

Sealed proposals will be received by the Committee of the Board of Chosen Freeholders of the County of Union at the Court House, Elizabeth, N. J., at 2:30 p.m. on Wednesday, December 22, 1920, for the following described work.

New lift bridge of the Strauss Trunnion Bascule type over the Elizabeth River at South Front Street, Elizabeth, N. J.

Plans and specifications for this work may be examined at the office of the County Engineer, 120 Broad Street, Elizabeth, N. J.

Each bidder must submit with the bid a certificate from a surety company stating that such surety company will provide the contractor with a bond in the sum and with such conditions as are required by the specifications.

Each bid must be accompanied with a certified check for five per cent of the bid as required by the specifications.

The Board reserves the right to reject any or all bids.

JACOB L. BAUER,
County Engineer

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 28	Viroqua, Wis.	Dec. 16
Jan. 10	Hartford, Conn.	Dec. 2

SEWERS

Dec. 21	Joplin, Mo.	Dec. 16
Dec. 22	Brooklyn, N. Y.	Dec. 16
Dec. 22	Detroit, Mich.	Dec. 16
Jan. 5	Lima, O.	Dec. 2
Jan. 5	Mansfield, O.	Dec. 16
Jan. 11	North Branch, Minn	Dec. 9

BRIDGES

Dec. 20	St. Thomas, Nev.	Dec. 9
Dec. 21	Morgan, Ga.	Dec. 2
Dec. 22	Elizabeth, N. J.	Dec. 2
	Adv. Dec. 2 to 16.	
Dec. 23	Detroit, Mich.	Dec. 2
Dec. 23	Milwaukee, Wis.	Dec. 16
Dec. 23	Detroit, Mich.	Dec. 9
Dec. 28	Wayne, Neb.	Dec. 9
Dec. 30	North Carolina	Dec. 16
Jan. 6	Miami, Fla.	Dec. 2
	Adv. Dec. 2 to 16.	
Jan. 7	Jacksonville, Fla.	Dec. 2
Jan. 11	Hamilton, Ont.	Dec. 16
Jan. 17	Burlington, Ia.	Dec. 16
	Adv. Dec. 16.	
Feb. 7	Bainbridge, Ga	Nov. 25
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Dec. 20	Boone, Ia.	Dec. 9
Dec. 20	Louisiana	Dec. 9
Dec. 20	Michigan	Dec. 16
Dec. 21	New Mexico	Dec. 2
Dec. 21	Sioux City, Ia.	Dec. 9
Dec. 21	Michigan	Dec. 16
Dec. 21	Oklahoma	Dec. 16
Dec. 21	Oklahoma City, Okla.	Dec. 16
Dec. 21	Corydon, Ia.	Dec. 16
Dec. 22	Sandusky, Mich.	Dec. 9
Dec. 22	Delaware	Dec. 9
	Adv. Dec. 9 and 16.	
Dec. 23	Indiana	Dec. 16
Dec. 29	Leavenworth, Kan.	Dec. 9
Dec. 29	Indiana	Dec. 16
Dec. 30	North Carolina	Dec. 16
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 3	La Junta, Col.	Dec. 9
Jan. 3	Indiana	Dec. 16
Jan. 4	Indiana	Dec. 16
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 5	Austin, Minn.	Dec. 16
Jan. 6	Missouri	Dec. 9
Jan. 6	Concordia, Kan.	Dec. 16
Jan. 7	Hutchinson, Kan.	Dec. 16
Jan. 10	Stockton, Kan.	Nov. 18
Jan. 11	Emporia, Kan.	Dec. 16
Jan. 15	Nevada	Dec. 9
Jan. 27	Missouri	Dec. 9
Feb. 1	Pineville, W. Va.	Dec. 16
Mar. 1	Ontario	Dec. 2
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Dec. 20	Wapello, Ia.	Dec. 2
Dec. 20	Muscatine, Ia.	Dec. 16
	Adv. Dec. 16.	
Dec. 22	Brooklyn, N. Y.	Dec. 16
Dec. 28	New York, N. Y.	Dec. 16
Dec. 29	Somerville, Tenn.	Dec. 16

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Dec. 20	New York, N. Y.	Dec. 16
Dec. 24	New York, N. Y.	Dec. 16

BUILDINGS

Dec. 20	Phila., Pa.	Dec. 9
Dec. 20	Atascadero, Cal.	Dec. 16
Dec. 20	New York, N. Y.	Dec. 16
Dec. 20	Lexington, Ky.	Dec. 16
Dec. 20	Pittsburgh, Pa.	Dec. 16
Dec. 20	Englevale, N. D.	Dec. 9
Dec. 21	Detroit, Mich.	Nov. 25
Dec. 21	Cleveland Heights (Warrensville P. O.), O.	Dec. 2
Dec. 23	Linwood, N. J.	Dec. 16
Dec. 30	Pocahontas, Ia.	Dec. 9
Dec. 31	Eloise, Mich.	Dec. 16
Jan. 1	Marietta, O.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 18
Jan. 1	Little Rock, Ark.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 25
Jan. 1	Springfield, Mo.	Dec. 2
Jan. 1	Springfield, Mo.	Dec. 9
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Nov. 25
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan. 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis.	Nov. 11
Jan. 2	Jamestown, N. D.	Dec. 2
Jan. 2	Ft. Collins, Col.	Dec. 9
Jan. 2	Aitkin, Minn.	Dec. 9
Jan. 3	Ft. Meyers, Fla.	Dec. 9
Jan. 3	Pontiac, Mich.	Dec. 9
Jan. 4	Greeley, Col.	Nov. 25
Jan. 4	Emporia, Kan.	Dec. 2
Jan. 4	Union Grove, Wis.	Dec. 2
Jan. 15	Fergus Falls, Minn.	Dec. 9
Jan. 15	Iron Belt, Wis.	Dec. 9
Jan. 15	Prince Frederick, Md.	Dec. 9
Jan. 15	St. Louis, Mo.	Dec. 9
Jan. 17	Spooner, Wis.	Dec. 16
Jan. 19	Buffalo, N. Y.	Dec. 2
	Adv. Dec. 2 to 16.	
Jan. 19	Buffalo, N. Y.	Dec. 9
Jan. 20	Lubbock, Tex.	Dec. 16
Feb. 15	El Paso, Tex.	Dec. 2
Mar. 1	Duluth, Minn.	Dec. 2

FEDERAL GOVERNMENT WORK

Dec. 20	Steel Dump Scows—Louisville, Ky.	Nov. 18
	Adv. Dec. 2 to 16.	
Dec. 20	Refrigeration Building — Columbus, Ga.	Dec. 2
Dec. 21	Conduit, Wiring, etc.—Covington, Ky.	Dec. 9
Dec. 22	Electric Towing Locomotive —Washington, D. C.	Dec. 2
Dec. 22	Dumb Waiter—Wichita, Kan.	Dec. 9
Dec. 22	Electric Distribution System—Spec. 4341—Bar Harbor, Me.	Dec. 9
Dec. 22	Separation of Water Drainage System—Wash., D. C.	Dec. 9
Dec. 22	Earthwork—St. Louis, Mo.	Dec. 9
	Adv. Dec. 9 and 16.	
Dec. 23	Mechanical Equipment — Wash., D. C.	Dec. 9
Dec. 24	Sub-Station for Switchboard Spec. 4308—South Charleston, W. Va.	Dec. 16
Dec. 27	Mailing Vestibule, etc.—Charlotte, N. C.	Dec. 9
Dec. 27	Electric Elevator—Charlotte, N. C	Dec. 9
Dec. 27	Mailing Vestibule, etc. — Kokomo, Ind.	Dec. 9
Dec. 27	Mezzanine Floor—Decatur, Ill.	Dec. 9
Dec. 27	Magnesite Floors—Cincinnati, O.	Dec. 16
Dec. 28	Boiler and Storage House — Woods Hole, Mass.	Dec. 9
Dec. 28	Mailing Vestibule—Corby, Pa.	Dec. 9
Dec. 28	Mezzanine Floor—Charleston, W. Va.	Dec. 9
Dec. 29	Mezzanine Floor—Beloit, Wis.	Dec. 9
Dec. 29	Improving Boiler Plant — Spec. 4252 — Charleston, S. C.	Dec. 9
Dec. 29	Steam Heating System—Norfolk, Va.	Dec. 16
	Adv. Dec. 16.	
Dec. 29	Fire Protection System—Bar Harbor, Me.	Dec. 16
Dec. 29	Sub-station for Switchboard —South Charleston, W. Va.	Dec. 16
Dec. 29	Raising Floors—Brooklyn, N. Y.	Dec. 16
Dec. 31	Steel Dump Scows—Phila., Pa.	Dec. 9
	Adv. Dec. 2 to 16.	
Jan. 3	Hot Water Piping—Phila., Pa.	Dec. 9
Jan. 5	Concrete Roads, etc.—Spec. 4336—Wash., D. C.	Dec. 16
Jan. 7	Dredging—Norfolk, Va.	Dec. 9
Jan. 7	Fire Service Mains —New Orleans, La.	Dec. 16
Jan. 10	Dredging—New Orleans, La.	Dec. 9
	Adv. Dec. 9 and 16.	
Jan. 12	Electric Traveling Bridge Crane—Spec. 4326—Puget Sound, Wash.	Dec. 16
Jan. 17	Dredging—New York, N. Y.	Dec. 16
	Adv. Dec. 16.	
Mar. 15	Post Office—Joplin, Mo.	Dec. 9

MISCELLANEOUS

Dec. 20	Pavilions—Randalls Island (New York, P. O.)	Dec. 16
Dec. 20	Station Finish—New York, N. Y.	Dec. 16
Dec. 21	Pavilions—Randalls Island (New York, P. O.), N. Y.	Dec. 16
Dec. 21	Graders, etc. — Lancaster, Wis.	Dec. 16
Dec. 21	Foundations—Phila., Pa.	Dec. 2
	Adv. Dec. 2 to 16.	
Dec. 22	Gasoline, Coal, and Retaining Wall, etc.—New York, N. Y.	Dec. 16
Dec. 23	Wood Paving Blocks—New York, N. Y.	Dec. 16
Dec. 24	Hot Water Mains—Randalls Island (New York, P. O.), N. Y.	Dec. 16
Dec. 28	Grease—Washington, D. C.	Dec. 16
	Adv. Dec. 16.	
Dec. 28	Wharfs and Pier — Phila., Pa.	Dec. 9
	Adv. Dec. 9 and 16.	
Jan. 4	Wall—Seneca Falls, N. Y.	Dec. 9
	Adv. Dec. 9 and 16.	
Jan. 5	Fan, Motor, Heaters, etc.—Dannemora, N. Y.	Dec. 16
	Adv. Dec. 16.	
Jan. 5	Fender Rack and Ice Breakers—Perth Amboy, N. J.	Dec. 16
	Adv. Dec. 16.	
Jan. 10	Filter Sand — Hartford, Conn.	Dec. 2
Jan. 11	Motors and Pumps—Sacramento, Cal.	Dec. 2
Jan. 18	Engine and Pump—Okeechobee, Fla.	Dec. 16
	Adv. Dec. 16.	
Jan. 26	Wall—Chesterville, Ont	Nov. 25

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

W. Va., Charlestown—City plans to install electric chlorine plant and meters for industrial consumers.

N. C., Greenville — City plans to issue $65,000 bonds to improve waterworks and lighting system.

Fla., Tampa — Tampa Waterworks Co. soon receives bids furnishing and laying 1½ mi. mains, (400 ft. of which will be laid across Hillsborough River at Eagle St.) Work involves 5,805 ft. 6-12 in. and 100 ft. 16 in. c. i. pipe, 3,000 or 4,000 cu.yd. rock from bed of Hillsborough River, etc. About $60,000. C. R. McFarland, mgr.

Tenn., Pulaski—City plans to construct waterworks system. About $100,000. W. J. Yancy, chn. water com. Noted July 29.

Ia., Newton—City had plans prepared building rein.-con. or steel reservoir, with 1,250,000 gal. capacity, 2 centrifugal pumps, pump house, 20-35 h.p. motor to pump 350-500 gal. per minute, etc. Work involves 1,000 cu.yd. concrete in reservoir and 3,250 cu.yd. earth excav. About $65,000. E. T. Archer, New England Bldg., Kansas City, Mo., engrs.

Minn., Stephen—City election in spring to vote on $30,000 bonds to build waterworks system. L. P. Wolff, 1001 Guardian Bldg., St. Paul, engr.

Idaho, Weiser—City election Jan. 4, to vote on $150,000 bonds to build waterworks system, including filtration plant. L. C. Kelsey, Filer, engr.

Ariz., Phoenix—City plans to vote on $450,000 bonds to extend and improve water distributing system. L. B. Hitchcock, city engr.

Cal., Niland — Mutual Water Co. 3 is organizing additional water district to serve 20,000 acres between Llana and Wister, work involves extension of main high line canal to Wester. Cost to exceed $100,000. C. Allison, Niland, engr.

Ont., London—Pub. Utilities Comn. plans to expend $135,000 for extensions to water distribution system; work involves c.i. pipe mains, hydrants, etc. E. V. Buchanan, Hydro Bldg., engr.

BIDS DESIRED

Wis., Viroqua—Until Dec. 28, by E. J. Oider, city clk., drilling well, 300-500 ft. deep, 12 in. diam. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr. Noted Dec. 9.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. C., Maiden—Town let contract building 4 mi. water mains, one 100,000 gal. standpipe, deep wells, pump houses, etc. and 3 sewage disposal plants, to Higgins & Goforth, Charlotte. About $100,000. Noted Dec. 9.

★Mich., Hamtramck (Detroit P. O.)—Villiage let contract furnishing and laying 3,870 ft. 6 in. c.i. watermains, etc., to J. A. McDace, 4036 Fairview Ave., Detroit. About $25,000. Noted Oct. 28.

Wis., Milwaukee—Dept. Pub. Wks. received bid Dec. 7, furnishing 2 circular sluice gates for Linwood Ave. water tunnel, from Chapman Valve Mfg. Co., Indian Head, Mass., $5,040 each. Noted Dec. 2.

Wash., Seattle—City received bids Dec. 3, building 2 earth dams, at Swan Lake, (as part of proposed extensions to waterworks system), (a) rolled embankment, (b) hydraulic fill, from Coluccio & Erickson, Ry. Exch. Bldg., (a) $54,054, (b) $54,954; Olympic Constr. Co., Seattle, (a) $72,410, (b) $72,410; J. L. Smith, Pioneer Bldg., (a) $80,883; G. Rerick, Seattle, (b) $84,615. Noted Nov. 13.

★Cal., Los Angeles — See "Streets and Roads."

Sewers

PROPOSED WORK

Pa., Scranton—Dept Pub. Wks. receives bids in spring, building lateral sewers, involving 3,550 lin.ft. 8-20 in. vitr. pipe sewer. About $27,701. W. A. Schunk, ch. engr.

Fla., Pensacola—City adopted ordinance to relay sewer from Chase to Main Sts. About $20,000. L. E. Heinberg, clk.

Ill., Bloomington — Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, opens bids in January, building sewage disposal plant, for city. About $60,000.

Ill., Decatur—City receives bids in February building intercepting sewers in various streets. About $300,000. Greeley, Pearse & Hansen, 39 West Adams St., Chicago, engrs.

Ill., Ziegler—City will probably receive bids in January building sewerage system, involving 43,680 ft. 8-15 in. vitr. sewer pipe, 29,000 cu.yd. earth trenching and 81 brick manholes. About $114,678. E. A. Cox, West Frankfort, engr.

Wis., Two Rivers—City having plans prepared for building additional sanitary and storm sewers in various streets. About $60,000. Simmons & Davis, 221 Grand Ave., Milwaukee, engrs.

S. D., Yankton—See "Streets and Roads."

Okla., Norman—City having plans prepared for extending sewerage system. About $50,000. Peckham, Sutton & James, Oklahoma City, engrs.

BID DESIRED

N. Y., Brooklyn—Until Dec. 22, by E. Riegelmann, boro pres., repairing rein.-con. sewer in Maspeth Ave. from Porter Ave. to Newtown Creek. About $149,720.

O., Mansfield—Until Jan. 5, by city, building 3 mi. sanitary sewers. W. C. Statler, engr.; advertised in this issue.

Mich., Detroit—Until Dec. 2, by Dept. Pub. Wks. furnishing labor and materials for 6,914 ft. Sect. 2 Bates St. tunnel sewer, in Congress, Randolph, Madison and Brush Sts. from Atwater St. to 30 ft. south of Alfred St., also 10,845 ft. Sect. 2A, of Bates St. Sewer in Woodbridge, Congress, Randolph, Madison and Brush Sts. C. W. Hubbell, City Hall, engr.

Mo., Joplin—Until Dec. 21, by O. P. Mahoney, comr. Streets & Pub. Impvts., 112 West 2nd St., furnishing labor and material (except sewer pipe and wyes) for building 5 mi. Villa Heights and Castle Rock Pub. Sewers. About $250,000. W. E. Shanklin, Frisco Bldg., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Northampton—City let contract building 1 story brick and concrete pumping station, 550-ft. 10 in. vitr. pipe line and 285-ft. 10 in. c. i. pipe line with manholes, covers, etc., to D. A. Sullivan, Paradise Rd. About $15,000.

N. Y., Ossining—C. F. Rattigan, supt. State Prisons, Capitol, Albany, received bids Dec. 8, building sewerage and water supply systems, here, from Carroll Contg. Co., 103 Park Ave., New York City, $313,392; A. F. Schaeffer, 440 State St., Schenectady, $319,158; P. Keeler Bldg. Co., 425 Orange St., Albany, $337,480. Noted Nov. 18th.

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro, received bids Dec. 7, building sewer in South St. from Long Island R.R. tracks to Rockaway Ave., (a) open cut, (b) tunnel, from F. Spannello, (a) $34,483, (b) $34,483; Green Contg. Co., 734 Vernon Ave., Astoria, L. I., (b) $34,596; J. Rotti, (a) $41,590, (b) $34,945.

★N. C., Maiden—See "Waterworks."

★Ky., Covington—Comn. Pub. Wks. let contracts building 6-18 in. sewers in 27th St. and Decoursey Ave., to E. J. McKenna, Covington, $22,869 and $7,276 respectively; Madison Ave., to W. Metzel, Covington, $6,834. Noted Nov. 18.

★O., East Cleveland (Cleveland P. O.)—City let contract building sewer and culvert in Terrace Rd. between Taylor Rd. and Hastings Ave., to T. Marro, Illuminating Bldg., Cleveland, $16,501. Noted Dec. 9.

★Mich., Detroit—City let contract build-Six Mile Rd. Sewer, Sect. 5, from Lumkin to Omira Aves. and Sect. 6, Omira to 3rd Aves., to J. Porath, 20 McGraw Bldg., $418,000 and $354,114 respectively; Sect. 7, from 3rd to Linwood Aves., to W. Blanck & Co., 827 Ford Ford Bldg., $239,117. Noted Dec. 9.

Mich., Detroit—City received bids for (1) Lateral Sewer 3264, between Fairview, Engel, Marsh and Edlie Sts., (2) 3,389 between Linwood, LaSalle and Tuxedo Sts., (3) 3,390 between Mitchell, McDougal, Carpenter and Davison Sts., (4) 3,395 between Jos. Campau, McKay, and Davison Sts. and Six Mile Rd., (5) 3,396 between Lawton, Linwood, Buena Vista and Tyler Aves., from Lennane Bros., 809 Union Trust Bldg., (1) $16,906; Detroit Drainage Constr. Co., Penobscot Bldg., (1) $14,000, (2) $5,400, (3) $11,920, (4) $42,358, (5) $10,240; S. A. Duponovich, Detroit, (1) $17,400; R. D. Baker, Penobscot Bldg., (2) $4,998, (3) $16,000; Western Constr. Co., 1208 Ford Bldg., (2) $5,413, (3) $15,433, (4) $44,738, (5) $10,698; Liberty Constr. Co., 917 Chamber of Commerce (1) 000; Langley & Barton, Penobscot (5) $10,809.

Mich., Ferndale—City received bi nishing labor and material laying 30-36 in. sewer in Rockwell Ave. fr muda to Farmdale Aves., from R. D 485 Elmherst Ave., Detroit. (rein $46,000; R. Edwards, Milan, (vitr 000. Noted Dec. 9.

★Mich., River Rouge—Village let tract building rein.-con. sump for s system, involving 1,450 cu.yd. excav cu.yd. rein.-con. and 10½ tons steel, to ton & Errington Cement Constr. Co Buhl Blk, Detroit. About $20,000. Dec. 2.

★Utah, Salt Lake City—City let con building sewers in 5th St. south to Angeles & Salt Lake R.R. tracks, a 8th St. west to Redwood Rd., involving 367 ft. 8-21 in. vitr. and 530 ft. 24 in. pipe, to R. L. Campbell, Salt Lake $200,168.

★Cal., Calexico—City let contract c structing 10,417 ft. 6 in. vitr. sewers, to H. H. Peterson, Calexico, $16,837.

★Cal., Los Angeles — See "Streets Roads."

Bridges

PROPOSED WORK

N. C., Washington—Comrs. Beaufort Co will sell $100,000 bonds Jan. 13, to build bridges. C. P. Aycock, chn.

Wis., La Crosse—La Crosse Co. soon receives bids building Smith Valley Bridge 24 ft. wide, concrete, to have two 45 ft spans, on State Highway 21, Campbell Twp About $17,000. J. Hintgen, comr. Wisconsin Highway Comn., Madison, engrs.

Wis., Neillsville—City, Pine Valley Twp and Clark Co. having plans prepared for 224 ft. rein.-con. bridge, 20 ft. roadway with sidewalks, over Black River. About $100,000. J. H. A. Brahtz, 409 Metropolitan Opera House Bldg., St. Paul, Minn., engr Noted Sept. 16.

Wis., Prescott—Prescott Bridge Co. having plans prepared for 450 ft. steel bridge, 24 ft. wide, to replace ferry, over St. Croix River, between Pierce Co., Wis., and Washington Co., Minn. About $125,000. Toltz, King & Day, 1410 Pioneer Bldg., St. Paul, Minn., engrs. Noted Dec. 2.

Wis., Wisconsin Rapids — City plans to build 500 ft. rein.-con. bridge, 52 ft. wide, over Wisconsin River on Grand Ave. About $210,000. Wisconsin Highway Comn., Madison, engrs.

Minn., Grand Rapids—Itasca Co. rejected bids received Dec. 7, building Bridge 3252 over Mississippi River, to have four 60 ft. spans. About $100,000. Work will be readvertised. Noted Nov. 18.

Kan., Marysville—Marshall Co. rejected bids Nov. 9 furnishing labor and material building 200 ft. steel truss span bridge on Sect. 21, T4, R9; 40 ft. rein.-con girder bridge between Sec. 17-20 T5 and R10; one 24 ft. rein.-con. span bridge on north side Sect. 1, T1, R6; one 24 ft. beam on south side Sect. 31, T2, R6, one 24 ft. beam span on west side Sect. 30, T2, R 7; 42 ft. steel span bridge on Sect. 1, T1, R7; 42 ft. steel span bridge between Sect. 35 and 36, T2, R9; 50 ft. steel span bridge on north line Sect. 4, T1, R10. Noted Nov. 4.

Ont., London—See "Miscellaneous."

Ont., Prairie Siding—Kent Co. retained W. G. McGeorge, engr., 153 Queen St., Chatham, to prepare plans for 380 ft. steel bridge, to have one 200 ft. stationary span and one 180 ft. swing span. About $150,000. Bids expect to be called early in January.

BIDS DESIRED

North Carolina—Until Dec. 30, by State Highway Dept., Raleigh, building bridges on Federal Aid Project 68, Sampson Co., involving 68,502 lb. reinforcing steel, 1,036 cu.yd. Class A concrete, 1,710 lin.ft. untreated timber piles, 282,950 lb. structural steel, 53,350 ft. creosoted lumber, 9,900 sq. yd. asphalt wearing surface, 1,065 ft. pipe railing, etc. W. S. Fallis, state highway engr.

Wis., Milwaukee—Until Dec. 23, by Commissioner Pub. Wks., for cluster pile driving and repairing timbers at Muskegon Ave., 6th and 16th Sts. bridges. About $15,000. G. Staal, City Hall, engr.

Ia., Burlington—Until Jan. 17, at office of City Clerk, building highway bridge. H. A. Vollmer, city engr.; advertised in this issue.

Kan., Topeka—Until Dec. 20, by Shawnee Co., building one 140 ft. span rein.-con. arch bridge on Rochester Rd., 20 ft. wide, involving 884 cu.yd. rein.-con., 36.3 tons steel, 4,300 lin.ft. wooden piling and 58

Bridges (Continued)

ft. cofferdam. About $45,000. A. C. Horwall Co., Topeka, and Marsh Eng. Co., 205 Masonic Temple, Des Moines, Iowa, engrs. Noted Nov. 18.

Ont., Hamilton—Until Jan. 11, by R. C. Desrochers, secy. Dept. Pub. Wks., Ottawa, building superstructure of single leaf Strauss Trunnion Bascule bridge over Burlington Channel, Wentworth Co.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Manchester**—Delaware Co. let contract building rein.-con. deck ribbed arch bridge, to have two 87 ft. spans, 26 ft. roadway and two 5 ft. sidewalks, to Miller-Fisk Constr. Co., L. & J. Bank Bldg., Waterloo, $43,988. Noted Dec. 2.

Kan., Chapman—Dickinson Co. received bids building one 150 ft. span rein.-con. arch bridge near here, 18 ft. wide, involving 1,[illegible] cu.yd. rein.-con., 40.8 tons steel, 4,080 lin.ft. wooden piling and 250 ft. cofferdam, from Koss Constr. Co., 2818 5th St., Des Moines, Iowa, $44,017. Cambell Bros., Kansas City, Mo., $52,217. Noted Nov. 25.

Kan, Columbus — Cherokee Co. received bids building 520 ft. rein.-con. and steel bridge 18 ft. wide, over Spring River, from Koss Constr. Co., 2818 5th St., Des Moines, Ia., (Rainbow arch design), $106,590; St. Louis Structural Steel Co., St. Louis, Mo., (steel bridge), $97,582. Noted Nov. 18.

Wyo., Thermopolis—State Highway Dept., Capitol Bldg., Cheyenne, let contract building 270 ft. rein.-con. bridge, 20 roadway, here, to R. M. Templeton, Thermopolis. About $64,000.

Tex., Breckenridge — Stephens Co. received bids Dec. 3, building 229 ft. concrete viaduct, 44 ft. wide, over Gonzales Creek on Highway 1, from Maney Bros. & Co., 304 Empire Bldg., Oklahoma, Okla., $69,-830; Morrison & Coleman, Wichita Falls, $74,094; McCall-Moore Eng. Co., 308-9 Amicable Bldg., Waco, $81,508. Noted Nov. 25.

★**Okla., Lawton**—Comanche Co. let contract building bridges and culverts, to Boardman & Co., Oklahoma City. About $39,000.

Streets and Roads

PROPOSED WORK

N. Y., New York — H. Bruckner, pres. Bronx Boro, Municipal Bldg., Crotona Park, Tremont and 3rd Aves., rejected bids received Nov. 18, regulating, etc., Sackett Ave. from Williams Bridge to Eastchester Rds., cost $30,000; protecting with rock fill outlet of sewer at White Plains Ave. and East River, $4,000. Noted Nov. 25. Work will be readvertised.

Pennsylvania — State Highway Dept., Harrisburg, rejected bids received Oct. 13, repaving Application 401 and 402, York Co. Noted Oct. 21.

W. Va., Marlington — Pocahontas Co. plans to build 4 mi. Class A road from Warwick to Dunmore, Greenbank Dist.; grading to be done by day labor. Above project approved by State Highway Comn., Charleston. Noted July 29.

North Carolina — State Highway Comn., Raleigh, having plans prepared for clearing, grubbing, grading, graveling, laying 18-30 in. terra cotta pipe and building 2 small rein.-con. bridges and 9 box culverts on 4¾ mi. road between point north of Bradley Creek and Cowee-Franklin Twp. line, 14 ft. wide, Federal Aid Project 97 B, Macon Co. About $60,000. W. S. Fallis, state highway engr.

North Carolina—State Highway Comn., Raleigh, having plans prepared for clearing, grubbing, grading, top soiling, draining and building 400 ft. rein.-con. bridges, culverts, etc., on 21.9 mi. road between lower Little River and Harnett-Wake Co. line, 18 ft. wide, Federal Aid Project 102, Harnett Co. About $195,000. W. S. Fallis, state highway engr.

North Carolina — State Highway Comn., Raleigh, having plans prepared for clearing, grubbing, grading, top soiling, draining, laying 12-24 in. terra cotta pipe and building 130 ft. rein.-con. bridges on 7 mi. Mocksville-Winston-Salem Highway, 18 ft. wide, Federal Aid Project 136, Davie Co. About $50,000. W. S. Fallis, state highway engr.

North Carolina—State Highway Comn., Raleigh, having plans prepared for clearing, grubbing, grading, draining, laying 18-30 in. corrugated iron pipe and building several small rein.-con. bridges and culverts on 8 mi. road between Marion and Old Fort, 16 ft wide, Federal Aid Project 84 C, McDowell Co. About $75,000. W. S. Fallis, state highway engr

N. C., Louisburg — Gold Mine Twp., Franklin Co., plans to sell $40,000 bonds to build roads. M. S. Davis, Louisburg, engr.

N. C., Monroe—Union Co. plans to sell $200,000 bonds to improve and build roads and bridges. M. C. Long, clk.

N. C., Washington—Cmrs. Beaufort Co. will sell $500,000 bonds Jan. 13, to build roads. F. C. Kugler, chn.

O., Columbus—City plans to pave 7,875 ft. Neil Ave. from Goodale St. to 11th Ave., 60 ft. wide. H. Maetzel, engr.

O., Hamilton—City plans to pave 800 ft. Lincoln Ave. from Dixie Highway to R.R. depot, 33 ft. wide, involving 1,400 lin.ft. cement curbing and 3,000 sq.yd. vitr. brick, asphalt or concrete on concrete base. About $18,500. W. Weaver, city engr.

Michigan—State Highway Dept., Lansing, receives bids early in January grading, draining and surfacing 4.068 mi. Assessment Dist. Rd. 177, gravel.

Mich., Detroit—City and Rd. Comrs. of Wayne and Oakland Counties plan to build 20 mi. highway on Woodward Ave. from here to Pontiac, 20-24 ft. wide. Wayne Co. Rd. Com., 212 County Bldg., Detroit, engrs.

Ill., St. Charles—Kane Co. opens bids in January, building 3,723 ft. State Aid Rd. Route 1, 18 ft. wide, concrete. About $30,-478. C. L. Hanson, co. supt.

Ia., Cedar Rapids—City opens bids about Feb. 1, paving 3,000 sq.yd. First Ave. Bridge and approaches, brick block. About $15,000. T. F. McCauly, city engr.

Minn., Duluth — Comrs. St. Louis Co. authorized issuance of $4,000,000 bonds and soon receive bids hard surfacing 56 mi. State Highway 1, from here to Eveleth. Comrs. also plans to authorize issuance of $3,500,000 additional bonds (bringing total up to $7,500,000, as approved by voters at election Aug. 1918) to build balance of program of 276 mi. roads. Bids will be taken on different sections of highway, as plans for same are completed by R. W. Acton, co. engr. It is thought probable that the taking of a batch of bids will be authorized at the January meeting of the Co. Comrs.

S. D., Yankton — City voted $300,000 bonds to pave and build storm sewers in 6 or 7 mi. various streets. J. W. Summers, clk.

N. D., Devils Lake—City plans to pave 40 blocks various steets. About $150,000. J. Kuchar, clk.

N. D., Jamestown—City having plans prepared paving about 10 blocks various streets, 30 ft. wide, probably concrete. About $50,000. C. E. McElroy, clk.

Tex., Comanche—Comanche Co. having plans prepared grading and building bridges on 8 mi. Highway 22 from Rush Creek to De Leon, involving 1,261 cu.yd. 1:2:4 concrete, 86,288 lb. reinforcing and 47,060 lb. structural steel, etc. About $126,298. L. D. Parks, De Leon, engr. Noted Oct. 14.

Oklahoma — State Highway Dept., Oklahoma, had plans prepared grading, graveling, surfacing and draining 4.91 mi. State Highway, 18 ft. wide, involving 16,840 cu. yd. earth excav., etc., Pushmataha Co., cost $68,405, 1,625 mi. State Highway, 18 ft. wide, involving 25,000 cu.yd. earth excav., Latimer Co., $40,000; paving 2.14 mi. State Highway, 18-40 ft. wide, vitr. brick and concrete, Kay Co., $125,299; draining and grading 8.8 mi. Mountain Rd. State Highway, 18 ft. wide, involving 80,000 cu.yd. earth excav., McCurtain Co., $124,848.

Ontario — Provincial Government, Toronto, plans to build 10-12 mi. new roads in Carleton Co. About $60,000. G. Hogarth, Parliament Bldg., Toronto, engr.

BIDS DESIRED

W. Va., Pineville—Until Feb. 1, by Comrs. Wyoming Co. building 4 mi. earth road from Mullens to Raleigh Co. line. H. J. Spelman, Huntington, div. engr.

North Carolina—Until Dec. 30, by State Highway Comn., Raleigh, improving 17.28 mi. road between Hamlet and Richmond-Moore Co. line, 18 ft. wide, Federal Aid Project 129, Richmond Co., involving 43 acres clearing and grubbing, 59,000 cu.yd. common excav., 1,750 ft. 15-24 in terra cotta pipe, 300 ft. 18 in. corrugated metal pipe, 142 cu.yd. Class B. concrete and 45,-612 cu.yd. artificial sand clay surfacing. W. S. Fallis, state highway engr. Noted Dec. 9.

Ohio—Until Dec. 31, by State Highway Dept., Columbus, grading, building bridges and culverts and paving roads in following counties:

Crawford Co., Sect. "H" Bucyrus-Upper Sandusky Rd., 4.007 mi., brick, cost $258,-549.

Darke Co., Sect. "A" Greenville-Covington Rd., 6.188 mi., brick, rein.-con. or bituminous macadam, $429,276.

Sect. "B" Greenville-Covington Rd., 3.202 mi., brick, rein.-con. or bituminous macadam, $215,199.

Defiance Co., Sect. "G" Bryan-Defiance Rd., 1.788 mi., Kentucky rock asphalt, $81,714.

Franklin Co., Sect. "P" Columbus-Sandusky Rd., 2.20 mi., brick, $380,490.

Hocking Co., Sect. "K" Logan-Athens Rd., 3.487 mi., brick, on waterbound base or monolithic brick, $178,687.

Madison Co., Sect. "C" National Rd., 5.459 mi., Kentucky rock asphalt or bituminous macadam, $178,808.

Sect. "D-2" National Rd., 4.536 mi., Kentucky rock asphalt or bituminous macadam $115,114.

Sect. "C" Columbus-Washington Rd. 0.992 mi., bituminous macadam, $36,640.

Sect. "N" Columbus-Washington Rd., 1.429 mi., bituminous macadam, $50,992.

Muskingum Co., Sect. "O" Zanesville-Dresden Rd., 4.88 mi., monolithic brick, $272,860.

Sect. "M-1" Zanesville-Caldwell Rd., 1.45 mi., brick, $71,092.

Sect. "F-1" Zanesville-New Lexington Rd., 3.15 mi., brick, $181,210.

Portage Co., Sect., "V" Ravenna-Warren Rd., 3.140 mi., waterbound macadam, $93,-493.

Putnam Co., Sect. "M" Van Wert-Ottawa Rd., 2.865 mi., Kentucky rock asphalt, $112,402.

Richland Co., Sect. "J" Ashland-Shelby Rd., 3.144 mi., concrete or bituminous macadam, $136,262.

Stark Co., Sect. "D-1" Alliance-Minerva Rd., 1.415 mi., brick, $91,184.

Sect. "D" Navarre-Berlin Rd., 2.49 mi., brick, $109,953.

Trumbull Co., Sect. "H" Niles-Ashtabula Rd., 5.14 mi., bituminous macadam, $170,-595.

Sect. "A-2" Canfield-Niles Rd., 1.13 mi., brick, $98,540.

Williams Co., Sect. "Stryker" Bryan-Wauseon Rd., 1.393 mi., Kentucky rock asphalt, $106,316.

Wyandot Co., Sect. "L" Marion-Upper Sandusky Rd., 3.56 mi., monolithic brick, $182,862.

Sect. "F" Cambridge-Newcomerstown Rd., 3.489 mi., plain concrete, $159,584.

Seneca Co., Sect. "K" Tiffin-Republic Rd., 2.576 mi., brick or bituminous macadam, $129,161.

Guernsey Co., Sect. "G-1" Cambridge-Newcomerstown Rd., 1.672 mi., grading roadway, $69,606.

Sect. "Ottoville" VanWert-Ottawa Rd., 0.595 mi., grading and paving with Kentucky rock asphalt, $22,986.

Indiana — By Rd. Co. Comrs. building roads in following counties:

Dec. 23, Vanderburgh Co., Evansville, Walter Mills et al Rd., rock, Pigeon Twp. W. M. Copeland, aud.

Dec. 29, Whitely Co., Columbia, 8,375 ft. W. W. Smith et al Rd., gravel, Etna Twp. W. K. Burwell, aud.

Jan. 3, Spencer Co., Rockport, J. P. Frank et al Highway, Ohio Twp.; Joshua Weatherbolt et al Rd., gravel, Ohio Twp. R. W. Richards, aud.

Jan. 4, Montgomery Co., Crawfordsville, 6,600 ft. Lee Brookside et al Rd., gravel, Clark Twp.; Joseph A. Linn et al Rd., gravel, Walnut Twp.; 10,560 ft. Geo. Himes et al Rd. on line between Union and Scott Twps., gravel. W. McClelland, aud.

Wabash Co., Wabash, Frank Linn et al Rd., gravel, Noble Twp. B. Banister, aud.

Michigan—Until Dec. 20, by State Highway Dept., at dist. office Cadillac, grading and surfacing 2.968 mi. State Trunk Line Rd. 63-2, Osceola Co., involving 27,857 sq. yd. gravel or stone. Noted Dec. 9.

Michigan—Until Dec. 21, by State Highway Dept., at office of Bd. Rd. Comrs. Charlevoix Co., (Charlevoix), grading and surfacing 3.407 mi. State Trunk Line Rd. 13-11 Sect. B, involving 31,982 sq.yd. gravel or stone. Noted Dec. 9.

Michigan—Until Dec. 21, by State Highway Dept., at office of Bd. Rd. Comrs. Ionia Co., (Ionia), grading, draining and surfacing, 4.895 mi. State Trunk Line Rd. 39-2, involving 45.948 sq.yd. gravel. Noted Dec. 9.

Michigan—Until Dec. 21, by State Highway Dept., at office of Bd. Rd. Comrs. Midland Co., (Midland), grading, draining and surfacing 2.038 mi. State Trunk Line Rd. 18-14, involving 18,836 sq.yd. gravel or stone-gravel, 11,753 cu.yd. excav., etc.

Ia., Corydon—Until Dec. 21, by Comrs. Wayne Co., improving 10.95 mi. road, involving 125,153 cu.yd. earth excav., 9,320 lin.ft. 6-12 in. tile, etc. D. C. Thomas, Corydon, engr.

Streets and Roads (Continued)

Minn., Austin—Until Jan. 5, by Mower Co., graveling Federal Aid Project 38, State Rd. 1, involving 28,813 cu.yd. gravel; Job 2002, State Rd. 4, involving 15,560 cu.yd. gravel. About $20,000. J. A. Myron, Slayton, engr.

Kan., Concordia—Until Jan. 6, by Cloud Co., paving 6.506 mi. Federal Aid Project 67, and 2.15 mi. Federal Aid Project 68, 18 ft. wide. B. E. Thurston, engr.

Kan., Emporia—Until Jan. 11, by Lyon Co., paving 5.87 mi. Santa Fe Trail, Sect. C. & G., Federal Aid Project 30, 18 ft. wide. About $250,000. W. S. Ruggler, engr.

Kan., Hutchinson—Until Jan. 7, by Reno Co., grading and building culverts on 52,822 ft. Santa Fe Trail, Sects. D. and E., 30 ft. wide, Federal Aid Project 27. About $200,000. D. E. Gilmer, Hutchinson, engr.

Oklahoma—Until Dec. 21, by State Highway Dept., Capitol Bldg., Oklahoma City, improving 13 mi. Federal Aid Project 19, Oklahoma Co., alternate bids on vitr. brick, sheet asphalt, cement, concrete and asphaltic concrete; 15.98 mi. Federal Aid Project 39, Carter Co., gravel, rock asphalt, cement, and concrete and asphaltic concrete; graveling 21.79 mi. Federal Aid Project 21, McIntosh Co. R. C. Terrell, state highway engr. Noted Aug. 5.

Okla., Oklahoma City—Until Dec. 21, by city, paving 36 blocks with 2 in. asphaltic surfacing on 5 in. concrete base.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Pennsylvania** — State Highway Dept., Harrisburg, let contracts repaving Application 1236 and 1237, Beaver Co., both concrete, to J. B. Reed Co., McKees Rocks; Application 1238, Beaver Co., hillside brick, to S. B. Markley, New Brighton; Authorizations 401 and 410, Erie Co., to Warren Bros. Co., 142 Berkeley St., Boston, Mass. Noted Sept. 23 and Oct. 21.

★**North Carolina**—State Highway Comn., Raleigh, let contract improving 4.54 mi. road from Forsyth Co. line to Guilford Co. line, Federal Aid Project 82, 18 ft. wide, Davidson Co. to Helig & Sherill, P. O. Box 9, Winston-Salem, $56,587. Work involves 6 acres clearing and grubbing, 29,710 cu.yd. common excav., 11,870 cy.yd. top soiling, 542 cu.yd. Class A and 51 cu.yd. Class B concrete, 824 ft. 12-24 in. terra cotta pipe, 71,510 lb. reinforcing steel and 1,300 lb. expansion plates and bolts, etc.

★**North Carolina**—State Highway Comn., Raleigh, let contract improving 7.63 mi. road between Wilson-Wayne Co. line and Wiggins Mill, 18 ft. wide, Federal Aid Project 127, and 6.25 mi. road from Wilson Twp. line to Wilson-Nash Co. line, 18 ft. wide, Federal Aid Project 117, to Bd. Rd. Comrs., Wilson Co. (Wilson) $30,826 and $25,984 respectively. Noted Nov. 11.

Fla., Ft. Myers—City received only bid grading and paving 1½ mi. 1st St. from Fowler St. to Billys Creek Bridge, 28-36 ft. wide, involving 11,873 sq.yd. pavement and 2500 cu.yd. grading, from J. G. Yeats, Port Tampa City. About $30,000. Contractor bid on following types, vitr. brick at $4.18 per sq.yd., cement, $4.95, sheet asphalt, $2.65, asphalt block, $3.75, concrete, $5.00 and asphaltic concrete, $2.75. Noted Nov. 18.

★**Fla., Key West**—City will lay 10 mi. concrete sidewalks, (4 mi. 10 ft. wide and 6 mi. 6 ft. wide), involving 41,000 cu.yd. concrete, cost, $50,000; native rock and sheet asphalt covering over 4 mi. various streets, 30 ft. wide, involving 8 mi. concrete curbing and guttering, 60,000 sq.yd. asphalt and 60,000 sq.yd rock base, $100,000. Work will be done by day labor.

★**Fla., Tampa**—City let contract paving ¼ mi. Ashley St. from Zack to LaFayette Sts., 80 ft. wide, involving 5,600 sq.yd. vitr. brick, to Howell & Owens, Strand Bldg., at $5.80 per sq.yd.

★**Indiana**—Bd. Co. Comrs. let contracts building roads in following counties:

Owen Co., Spencer, 8.885 ft. G. Knapp et al Rd., gravel, Marion Twp., to M. K. Hanna, Bloomington, $16,290.

Gibson Co., Princeton, 15,538 ft. Crawford-Williams Rd., stone and gravel, Montgomery Twp., to Hazleton Gravel Co., Hazleton, $41,500.

Hancock Co., Greenfield, 14,690 ft. W. F. Klieman Rd., gravel, Buck Creek Twp., to Hawkins & Rigdon, Fountaintown, $17,450. Noted Nov. 18 and 25 and Dec. 2.

★**Michigan**—State Highway Dept., Lansing, let contract grading and surfacing with concrete 16.595 mi. Federal Aid Project 38, St. Clair Co., Sects. A, B and C, involve 485.1 sta. fine grading, $10 per sta., 96,753 sq.yd. concrete, $3.50 per sq.yd., Sects. D and E, 391 sta. grading, $10, and 77,943.4 sq.yd. concrete, $3.55, etc., to Jenks & Dewart, 1514 Military Ave., Port Huron. Total cost $635,231.

★**Wisconsin**—State Highway Comn., at div. office 2, 208 Stephenson Bldg., Milwaukee, let contract grading and paving 4.65 mi. Town Line Rd., Federal Aid Project 115, involving (a) 49,150 sq.yd. concrete surfacing, (b) 16,385 bbl. cement in place, (c) 49,176 lin.ft. shouldering, etc., to McGucken Constr. Co., 425 East Water St., Milwaukee, (a) $1.88 per sq.yd., (b) $3.21 per bbl., (c) $0.10 per lin.ft., etc., total cost, $153,944. Noted Dec. 2.

Wisconsin—State Highway Comn., Madison, received bids Dec. 6, grading and paving 2.1 mi. Portage-Wyocena Rd., Federal Aid Project 51, Columbia Co., involving (a) 9,568 cu.yd. earth excav., (b) 46,933 cu.yd. borrow excav., (c) 35.15 cu.yd. concrete in culverts, (d) 47,090 lb. structural steel, (e) 140.5 cu.yd. Class "A" concrete, (f) 26 cu. yd. Class "E" concrete, etc., from Gunnison Bros. and Lange, North Freedom, (a) $0.63 per cu.yd., (b) $0.45 per cu.yd., (c) $28. per cu.yd., (e) $33 per cu.yd., (f) $33. per cu.yd., etc., total cost, $39,957; Brogan & Burns, Green Bay, (a) $0.60, (b) $0.59, (c) $26., (d) $0.12, (e) $34., (f) $38., $47,839; McGucken Constr. Co., 425 East Water St., Milwaukee, (a) $1.15, (b) $0.75, (c) $30., (d) $0.13, (e) $42, (f) $28., $62,285; also building bridge on above project, from M. O. Carter, Richland Center, $10,091; W. E. Gifford, 425-26 Washington Bldg., Madison, $13,250. Noted Dec. 2.

Wisconsin—State Highway Comn., at div. office 8, 1st Natl. Bank Bldg., Superior, received bids grading and paving 13 mi. Barron-St. Croix Falls Rd., Federal Aid Project 22, Polk Co., from Boyd & Bowell, St. Croix Falls, $25,406; C. R. McLean, Duluth, Minn., $26,918; Brogan & Burns, Green Bay $51,129. Noted Dec. 2.

★**Ia., Carroll**—Carroll Co. let contract improving 19 mi. Coon Rapids-Dedham-Templeton-Manning Rd., 24 ft. wide, to Peterson, Shirley & Gunther, 1217 W. O. W. Bldg., Omaha, Neb., $125,266.

Ia., Charles City—Floyd Co. received bids Nov. 30, improving 5 mi. Federal Aid Project 63, Sect. B, Nora Springs to Rudd Primary Rd., involving (a) 26,694 cu.yd. excav., (b) 58,743 sq.yd. paving, from Henkle & Son, Mason City, (a) $1.25 pper cu.yd., (b) $4.15 per sq.yd.; Whitlow Constr. Co., Charles City, (a) $1.20, (b) $4.23; Garvey-Weyenberg Constr. Co., 812 College St., Appleton, Wis., (a) $1.25, (b) $4.32. Above bids rejected, may readvertise in January.

★**Minn., Mantorville**—Dodge Co. let contract building Federal Aid Project 200, (formerly 173) involving 1 acre grubbing, 26,855 cu.yd. excav., 38,518 cu.yd. overhaul, etc., Job 2002, State Rd. 6, involving 18 acres clearing and grubbing 40,000 cu.yd. excav., etc., to Cameron, Joyce & Co., Keokuk, Ia. About $50,000. Noted Nov. 4.

Missouri—State Highway Dept., California, received only bid Dec. 2, from E. C. Johnson, Jefferson City, building various sections of Southern Highway, State Aid Project S 20.14, Moniteau Co., .98 mi. (Cole Co. line relocation), involving 6,392 cu.yd. earth and 2,000 cu.yd. rock excav., $0.75 and $2.25 respectively, 29.1 cu.yd. Class B concrete masonry, $30, etc., total cost $10,359; .84 mi. (McGirk relocation), 3,484 cu.yd. earth excav., $0.75, 5.6 cu.yd. Class C concrete masonry, $35, etc., $3,025; .68 mi. (Sect. A Clarksburg Project), 2,738 cu.yd. earth and 400 cu.yd. rock excav., $0.75 and $2.25 respectively, 7.4 cu.yd. Class B concrete masonry, $30, etc., $3,240; .8 mi. (Sect. B Clarksburg Project), 3,223 cu.yd. earth excav., $0.75, 31.2 cu.yd. Class B concrete masonry, $30, etc., $3,557; .95 mi. (Brants relocation), 5,798 cu.yd. earth excav., $0.75, 4.8 cu.yd. Class C concrete masonry, $35, etc., $4,692. Noted Nov. 25.

★**Missouri**—State Highway Dept., Springfield, let contract to Springfield Special Rd. Dist., Brighton, building 16.54 mi. Sect. A Oklahoma-St.Louis Rd., Federal Aid Project 150, Greene Co., involving 59,313 cu.yd. earth excav. cost $0.44 per cu.yd., 5,270 cu.yd. borrow, $0.40, 20,360 sq.yd. broken base course, $0.40, 388.4 cu.yd. Class B and 22 cu.yd. Class C concrete masonry, $24 and $23 respectively, etc., total cost $111,268; 14.79 mi. Sect. B Oklahoma-St. Louis Rd., Federal Aid Project 150, Greene Co., 54,655 cu.yd. earth and 558 cu.yd. rock excav., $0.45 and $2 respectively, 10,553 cu.yd. borrow, $0.40, 28,653 sq.yd. broken stone base course, $0.40, 475.7 cu.yd. Class B concrete masonry, $24, 46,855 specification C gravel pavement, $0.51, 73,359 sq.yd. clay bound macadam surface, $0.40, etc., $110,256. Noted Nov. 25.

★**Mo., Shelbyville**—Shelby Co. let contract grading and building culverts on mi. road from Hunnewell westward, wide, to C. P. O'Reilly & Co., 624 wright Bldg., St. Louis, $27,201. Nov. 25 under "Missouri."

★**Tex., Daingerfield**—Morris Co. let contracts grading, surfacing and draining 2.66 mi. Choctaw Trail, State Highway 12 ft. wide, (2) 10.68 mi. State Highway 1, 12 ft. wide, to C. W. Burgess, 710 Ave., Dallas, (1) $36,779, (2) $93,266, including 10% for engineering and contingencies. Noted Dec. 9.

★**Tex., Ft. Worth**—Tarrant Co. let contract grading, surfacing, clearing and grubbing 6.8 mi. Kutemans Cut-off Rd., Highway 1, 20 ft. wide, to T. A. Gi Seevers St., Dallas, $117,898; including for engineering and contingencies. Nov. 4.

★**Tex., Linden** — Cass Co. let contract grading, surfacing and draining 10.99 Highway 1-C, Atlanta Rd., 12 ft. wide, Smith Bros. and Healey Constr. Co., Smith Bros., Crockett, $117,813; including 10% for engineering and contingencies and cost of gravel furnished by county. Noted Dec. 9.

★**Tex., Nacogdoches**—Nacogdoches Co. let contract grading, surfacing and building concrete culverts on 23.17 mi. Highway 21 from Gonzales to San Augustine, to H. F. Bland, San Augustine, $189,552. Work involves 169.3 acres clearing and grubbing, 89,449 cu.yd. borrow, 49,429 lb. reinforcing steel, 45,389 cu.yd. gravel, 661.95 cu.yd. Class "A" and 176.9 cu.yd. Class "C" concrete, etc. Noted Dec. 9.

Tex., Sinton—San Patricio Co. received bids grading, surfacing and draining (1) 15.06 mi. Highway 9, Rd. Dist. 1, involving 9,987 cu.yd. borrow excav., 29.9 cu.yd. Class "A" concrete, 2,790 lb. reinforcing steel, 27,373 cu.yd. shell and 15,641 cu.yd. gravel surfacing, (2) improving 12.5 mi. Highway 9, Defined Rd. Dist. 5, (a) grading road, involving 50,804 lin.ft. machine grading, 11,899 cu.yd. borrow excav., also surfacing and building concrete and steel bridges, (b) topping road with asphalt, involving 117,271 sq.yd. natural rock asphalt, 94,800 lb. structural and 41,361 lb. reinforcing steel, 22,704 cu.yd. shell, 12,974 cu. yd. gravel, 558.3 cu.yd. Class "A" and 45.01 cu.yd. Class "B" concrete, etc., from H. F. Bland, San Augustine, (1) $86,020 (no delivery of material), (2) $141,937 (no delivery of material) Billingsley & Ryman, Bay City, (1) $162,139, (2a) $191,202; Defined Rd. Dist. 1, c/o Commissioners, (1) $183,769, (2a) $188,149, (2b) $79,745. Noted Nov. 4.

★**Okla., Oklahoma City**—City let contract paving 1st St. from Western to Francis Aves. and Francis Ave. from Main to 2nd Sts., 1½ in. sheet asphalt on 1 in. binding course on 6 in. concrete base, to Western Paving Co., 518-19 Terminal Bldg., $25,959.

★**Utah, Salt Lake City**—City let contract paving 1,500 ft. 21st St. from Fire Station to 13th St. E., 42 ft wide, 7 in. plain concrete, to Campbell Bldg., Co., Newhouse Bldg., $33,352.

★**Cal., Los Angeles**—City let contract paving Cudahy Ave., involving 560 cu.yd. excav., 4,316 ft. shaping roadbeds and 10,625 sq.ft. 4 in. Willite pavement, to Lagana Land Co., Consolidated Realty Bldg.

★**Cal., Los Angeles** — Janss Investment Co., Metropolitan Bldg., will grade and oil streets, construct cement curbs and sidewalks, lay gas, water and sewer mains in their 60 acre subdivided tract on Los Feliz Rd. and Vermont Ave. Cost to exceed $10,000. Work will be done by day labor under supervision of W. H. Tuck, engr.

Excavation and Dredging

PROPOSED WORK

Miss., Batesville—Ditches—Sub Dist. No. 1, Indian Creek D. D., Panola Co. had plans prepared by Morgan Eng. Co., engrs., Goodwyn Institute, Memphis, Tenn., building 6 mi. open ditches to reclaim 3,200 acres. Work involves 82,500 cu.yd. excav. About $30,000.

Miss., Marks — Ditches — Sub. Dist. 2, Indian Creek D. D., Quitman Co., had plans prepared by Morgan Eng. Co., engrs., Goodwyn Institute, Memphis, Tenn., for 5 mi. open ditches to reclaim 2,300 acres. Work involves 60,000 cu.yd. excav. About $25,000.

Ia., Rockwell City—Drainage—Bd. Supervs. Calhoun Co., rejected bids received Nov. 30, building D. D. 245. R. B. Dixon, aud. Noted Nov. 25.

Wyo., Riverton — Drainage — Riverton Valley D.D. receives bids about March 1.

cavation and Dredging (Continued)

lding 9 mi. 10-21 in. tile drains, involv- 21,500 cu.yd. open ditch excav. P. B. keman, secy. A. H. Ayers, P. O. Box 246, gr.

BIDS DESIRED

N. Y., Brooklyn — Dredging — Until Dec. by E. Riegelmann, boro pres., dredging wtown Creek, at and in canal basin, in- ded within boundaries of Johnson, Mon- se and Varick Aves., Morgan Rd. and agg St. basin.

N. Y., New York—Dredging—Until Dec. by Comr. Docks, Pier A, North River. edging at East 101st and 102nd Sts., Har- m River.

Tenn., Somerville—Ditch—Until Dec. 29, y Bd. Dirs. Grays Creek D. D., building 11 mi. ditch down creek valley to reclaim 600 acres of bottoms lands, Shelby and Fayette Counties, involving 272 300 yds. ex- cav. S. W. McCleskey, 11 South 2nd St., Memphis, engr.

Ill., Jacksonville—Drainage—Until Dec. 23, by Comrs. Mud Creek D.D., Morgan and Cass Counties, at office of Caldwell Eng. Co., engrs., Jacksonville, for drainage work involving 124,000 cu.yd. excav., 4,124 ft. 12-22 in. vitr. clay drain tile, etc.

Ia., Muscatine—Drainage—Until Dec. 20, by F. W. Johnston, aud. Muscatine Co., building D. D. 2; advertised in this issue.

Industrial Works

PROPOSED WORK

N. H., Exeter—A. E. McRell having plans prepared by J. E. Baker, archt., 1008 Elm St., Manchester, for 2 story, 40 x 105 ft. brick and steel garage, concrete foundation. About $40,000.

Vt., Springfield—Gilmore & Co. plans to build 2 story, 50 x 150 ft. mill, concrete, brick and steel, rein.-con. flooring, concrete foundation. Architect not selected.

Mass., Brockton—Baker Realty Co., Belmont Ave., soon lets contract building 1 story, 120 x 240 ft., mill construction plant, on North Montello St. About $75,000. G. L. Falk, 153 Main St., archt.

Mass., Danvers—C. V. Burgess, archt., 23 Central Ave., Lynn, preparing plans for 2 story, 55 x 120 ft., rein.-con. cold storage plant, rein.-con. flooring, concrete foundation. About $75,000. Owners name withheld.

Mass., Oxford.—A. G. Stanhope, 340 Main St., Worcester, plans to build 2 story, 75 x 100 ft., brick and timber, cold storage plant. About $40,000. Project will mature in spring. Architect not selected.

Mass., South Boston (Boston P. O.)—Kendall, Taylor & Co., archts., 93 Fedaral St., Boston, soon receives bids building 2 story, 25 x 160 ft., concrete, brick and steel, warehouse, rein.-con. flooring, concrete foundation, on Dorchester Ave., for W. S. Langenbach, 303 Dorchester Ave.

Mass., Worcester—A. F. Mathieu c/o J. Rice, archt., 306 Main St., having plans prepared for 2 story, 60 x 180 ft., brick, steel and rein.-con. garage, on Pleasant and Fruit Sts. About $150,000. Project will mature in spring.

R. I., Providence—Nightingale, Baker & Salisbury, Matthewson and Fountain Sts., plan to build a 1 story, 60 x 200 ft., brick and steel or rein.-con. warehouse and 2 story office on West Exchange, Aborn and Cove Sts. About $75,000. Private plans.

Conn., Torrington—A. W. Pickett & Co., Railroad Ave., plans to build 3 story, brick and steel warehouse, on Litchfield St. About $75,000. Architect not selected.

N. Y., Cadyville—International Paper Co., 30 Broad St., New York City, having plans prepared by A. H. White, archt. and engr., 30 Church St., New York City, for hydro-electric plant, on Saranac Rd. About $250,000.

N. J., Trenton—Remington Phonograph Co., 1662 Bway., New York City, purchased 14.83 acre site, here, and plans to build large factory. Architect not selected.

Md., Baltimore—A. Thompson Co., 501 Water St., plans to build 2 story, 100 x 200 ft., brick and concrete printing plant, concrete foundation, on 29th St. and Pennington Ave. About $75,000. Architect not selected.

W. Va., Huntington — Wilson Creamery Co. having plans prepared by McCormick Co., archts. and engrs., Century Bldg., Pittsburgh, for 2½ story, 75 x 140 ft. ice cream plant, brick and steel, concrete foundation. About $125,000.

N. C., Winston-Salem—Blue Ridge Ice and Coal Co. plans to build ice manufacturing plant. About $75,000. M. Hinshaw, pres.

WATERWAY—CHICAGO, ILL.

Contract No. 2

Bids were received by Dept. Pub. Wks. & Bldgs, 37 East Jackson Blvd., Nov. 22 for constructing dams, locks and appurtenances across Illinois River at Starved Rock, near Utica, Ill., in connection with the Illinois Lakes to Gulf Waterway, from (A) Thompson, Black & Co., 900 Bell Telephone Bldg.; (B) Bates & Roger Contg. Co., 37 West Van Buren St. The unit bids were as follows:

	A	B
Clearing (lump sum)	$2,000 00	$720 00
Cofferdams, pumping	200,000 00	1,167,650 00
165,000 cu.yd. excavation	7 00	6 50
6,000 sq.ft. channeling	1 00	2 00
71,000 cu.yd. embankment	2 00	3 00
1,000 sq.yd. stone paving	4 00	3 60
501,000 f.b.m. pine and fir timber	100 00	180 00
6 1,000 ft.b.m. white oak timber	400 00	290 00
220,000 lb. structural steel	15	24
53,000 lb. steel castings	35	.32
53,000 lb. steel castings	33	.31
25,000 lb. gray iron castings	25	.25
25,000 lb. gray iron castings	23	.23
115,000 lb. steel forgings	40	32
100 cu.yd. No. 1 concrete	16 50	27 50
84,000 cu.yd. No. 2 concrete	13 75	19 50
2,000 cu.yd. No. 3 concrete	13 15	21 00
95,000 lb. metal reinforcement	07	11
1,000 bbl. Portland cement	3 75	4 80
500 lin.ft. wood fence	1 00	1 15
5,000 lin. ft. wire fence	1 25	1 55
2,100 lin.ft. vitrified pipe—6 in. dia	1 00	1 20
1,500 lb. pipe railing	75	95
1,100 lin.ft. fibre conduit, 3-in. dia	65	45
4 acres seeding	200 00	150 00
Ex ended totals	$2,825,040	$4,304,385

O., Cleveland—Mall Motor Co., 632 Superior Ave., plans to build 2 story, 120 x 160 ft., rein.-con., brick and steel garage, rein.-con. flooring, brick foundation, on Superior Ave. and East 12th St. About $250,000. M. Rohrheimer, pres. Christian-Schwarzenberg & Gaede, 1900 Euclid Ave., archts.

O., Cleveland—Bd. Educ. East 6th St. and Rockwell Ave., opens bids about Feb. 15, building heating plant for school on Diana and Darley Aves. About $100,000. F. G. Hogan, dir. W. R. McCornack, East 6th St. and Rockwell Ave., archt.

O., Cleveland—Ohio Granite & Marble Co., 538 Schofield Bldg., plans to build 1 story, brick factory, brick foundation, on Pearl Rd. About $100,000. G. W. Haskins, secy. Private plans.

O., Cleveland—See "Buildings".

O., Cleveland—P. Matzinger, archt., Caxton Bldg., soon lets contract building 1 story, 70 x 240 ft., mill construction factory, brick foundation, on Sideway Ave. and East 65th St., for Cleveland Refrigerating Co., 2996 East 72nd St. About $50,000.

O., Cleveland—Prame Realty Co., c/o J. H. Dickman, 214 Williamson Bldg., having plans prepared by W. S. Lougee, archt., Marshall Bldg., for 1 story, brick and steel garage, brick foundation, at 742 Hamilton Ave. About $50,000.

O., Cleveland—Republic Tool & Mfg. Co., 1399 West 9th St., having plans prepared by G. S. Rider & Co., archts., 1900 Euclid Ave., for 2 story factory and warehouse, brick and steel, brick foundation, on Harvard Ave. and East 49th St. About $200,000. C. E. Lowe, pres.

O., Columbus—Brown Steel Co., 480 Neilston St., having plans prepared for 1 story, 55 x 390 ft. brick and steel shop, on Marion Rd. About $75,000. Private plans.

O., Painesville—Middle State Rubber Co., c/o E. Ewing, 708 Williamson Bldg., Cleveland, having plans prepared by Osborn Eng. Co., archts. and engrs., 2848 Prospect Ave., Cleveland, for 2 story, 60 x 200 ft., rein.-con., brick and steel factory and warehouse, rein.-con. flooring, brick and concrete foundation. About $200,000.

Ind., Logansport—Sandusky Cement Co., c/o E. J. Maguire, secy., Engineers Bldg., plans to build 1 story, 46 x 102 ft. factory and storage plant, brick and steel, brick foundation. About $50,000. Private plans.

Mich., Grand Rapids—H. L. Mead, archt., Grand Rapids, preparing plans for 4 story, rein.-con., brick and steel factory, concrete foundation. About $85,000. W. W. Bradfield, Grand Rapids, engr. Owner's name withheld.

Ill., Chicago—W. Granger, archt., 36 West Randolph St., opens bids about Jan. 1, building 1 story, 128 x 163 ft., concrete and brick garage, concrete foundation, on Grand Pl. near Clark St., for U. S. Brewing Co., 2519 Elston Ave. About $40,000.

Ia., Cedar Rapids—Hutchinson Ice Cream Co., 519 H St. W., had plans prepared and receives bids about Jan. 10, building 2 story, 60 x 100 ft., rein.-con. and brick factory, on 5th Ave. and 3rd St. E. About $50,000. Hatton, Holmes & Anthony, 323 Masonic Temple, archts.

Wash., Seattle—Goodrich Rubber Co., East Market St., Akron, O., having plans prepared by J. Graham, archt., L. C. Smith Bldg. for 5 story, 120 x 200 ft. brick warehouse on 4th St. S. and Atlantic St., here. About $250,000.

Cal., Burbank — Linoleum & Window Shade Co. having plans prepared for 42 x 201 ft. main building, 25 x 25 ft. warehouse and 20 x 30 ft. office, all hollow tile. Cost to exceed $50,000. Private plans.

Cal., Los Angeles—P. L. Wilson, 631 South Sprague St., plans to build 140 x 150 ft. garage, on Bonnie Brae and 7th Sts. About $70,000. Walker & Eisen, Hibernian Bldg., archts.

Que., Limoilou — Canada Box & Lumber Co., Bergmont Aves., receives bids about Jan. 1, rebuilding plant. About $100,000.

Ont., Goderich—Huron Specialties Castings Co., Clinton, plans to build plant here. About $75,000.

Ont., Guelph — Provincial Government Toronto, plans to construct dairy building in connection with Agricultural College, here. About $100,000. Address M. Doherty, Toronto.

Ont., Tilbury—Ontario Flax Co. plans to rebuild flax mill recently destroyed by fire. Loss $75,000.

Ont., Welland—Cross Fertilizer Co., Ltd., plans to build 2 story factory, probably brick and steel. About $250,000. Architect not selected.

Ont., Woodstock—Amer. Ironing Machine Co., 168 North Michigan Ave., Chicago, Ill., plans to remodel factory, here. About $100,000. Private plans.

Man., Brandon—Massey-Harris Co., Ltd., 400 Shelby Ave., Montreal, Que., plans to build brick and steel warehouse, here. About $75,000.

B. C., Prince George—F. Jones, pres. Canada Cement Co., 273 Craig St. W., Montreal, Que., and C. Gordon, pres. Dominion Textile Co., 112 St. James St., Montreal, are interested in company which plans to build pulp and paper plant here, and develop water power on Fraser River at Grand Canyon. Bids will be received in January for above project. About $6,000,000.

B. C., Ruskin—Western Power Co. of Canada, 198 Hastings St. W., Vancouver, has had report made by Creer & Mackenzie, engrs., 837 Hastings St. W., Vancouver, for raising dam and installing additional unit of about 13,000 hp., at Stove Falls.

BIDS DESIRED

N. Y., New York—Until Dec. 20, by Ballinger & Co., archts and engrs., 329 South Broad St., Phila., Pa., building 3 story, brick warehouse, at 68 Charlton St., here, for J. D. Johnson, 139 North 7th St., Phila. About $100,000.

N. Y., New York—Until Dec. 24, by Dept. Pub. Welfare, Municipal Bldg., furnishing labor and material for (1) general construction (2) refrigerating and ice-making equipment, (3) underground brine line system in erection and completion of refrigerating plant, Metropolitan Hospital Dist., on Blackwells Island. B. S. Coler, comr.

N. Y., New York—Until Dec. 24, by Dept. Pub. Welfare, Municipal Bldg., furnishing labor and material required for repairs and additions in new elevator storehouse, on Blackwells Island. B. S. Coler, comr.

Industrial Works (Continued)

O., Cleveland—M. Purer, 2724 East 53rd St., receiving bids building 1 story, 80 x 120 ft., brick and steel garage, brick foundation, at 796 East 105th St. About $40,000. M. Orlin, 2909 East 112th St., archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Rockland** — Rockland & Rockport Lime Co., 45 Milk St., Boston, will construct plant consisting of 6 lime kilns and gas producers, 1 story, 35 x 100 ft. main building and 2 story, 60 x 108 ft. lime storage and packing house, all steel and concrete, concrete foundations. Steel contract let to Virginia Bridge and Iron Co., Roanoke; steel erection, to Boston Bridge Wks., 47 Winter St., Boston; balance of project will be done by day labor. Noted Mar. 11.

★**Mass., Dorchester** (Boston P. O.)—I. Lesser, 3 Fayston St., Roxbury, will build 1 story, 100 x 125 ft., brick and concrete garage, rein.-con. flooring, concrete foundation, on Mt. Vernon St., here. About $40,000. Work will be done by day labor.

★**N. Y., Brooklyn**— Victory Operating Co., c/o S. Millman, archt., 26 Court St., will build 1 story, 115 x 140 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Parkside Ave. between Rogers and Nostrand Aves. About $45,000. Work will be done by day labor.

★**N. Y., New York**—Ferncliffer Garage, Inc., c/o De Rose & Cavalieri, archts. and engrs., 370 East 149th St., will build 1 story, 120 x 125 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on 3rd Ave. near Franklin Ave. About $75,000. Work will be done by day labor.

★**N. Y., New York**—T. Phelan, c/o Moore & Landsteidel, archts. and engrs., 148th St. and 3rd Ave., will build 1 story, brick, steel and concrete garage, rein.-con. flooring, concete foundation, on Burnside Ave. About $50,000. Work will be done by day labor.

★**N. Y., New York** — Dorsma Garage Corp., c/o F. J. Schefeick, archt., 4168 Park Ave., will alter 1 story garage, and build 1 story, 55 x 115 ft. addition to same, brick and steel, rein.-con. flooring, concrete foundation, at 1016 St. Nicholas Ave. About $45,000. Work will be done by day labor.

N. Y., New York., M. C. Haims, c/o H. Lippman, archt. and engr, 126 East 59th St, will build 4 story, 34 x 98 ft. brick and stone garage, rein.-con. flooring, concrete foundation, at 130-132 East 41st St. About $40,000. Work will be done by day labor.

★**N. Y., New York**—United Electric Light & Power Co., 130 East 15th St., let contract building power house, on 134th St. and East River, to U. S. Structural Co., 841 Bway. About $4,500,000. Noted Oct. 21.

★**Pa., Hollidaysburg**—E. H. Brua, 319 Allegheny St., and L. A. Brua, 304 Pennsylvania St., will build 2 story, 60 x 120 ft., rein.-con. and brick garage and storage warehouse, on Blair and Union Sts. Work will be done by day labor.

★**Md., Baltimore**—W. E. Hooper & Sons Co., Parkdale Rd., let contract building 2 and 1 story, 28 x 34 ft. and 12 x 49 ft., concrete, brick and steel machine shop additions, concrete foundation, on Parkdale Rd. and Druid Hill Park, to Whiting-Turner Constr. Co., Stewart Bldg. About $60,000.

★**N. C., Gastonia**—Arkray Mills let contract building 2,000 spindle cotton mill, rein.-con. and steel, rein.-con. flooring, concrete foundation, to Turner Constr. Co., 244 Madison Ave., New York City. About $750,000.

★**La., Bastrup**—L. H. Fox let contract constructing reduction plant, to include three 2 story, 50 x 200 ft. buildings, rein.-con. and steel and four 1 story, 30 x 60 ft. buildings, wood and steel, to Widmer Eng. Co., Century Bldg., St. Louis, Mo. About $200,000.

★**O., Cleveland**—See "Buildings."

★**O., Cleveland**—Glenville Hospital, c/o A. White, 701 Parkwood Dr., let contract building 2 story, 40 x 40 ft., rein.-con., brick and steel boiler house and laundry addition, rein.-con. flooring, brick foundation, to Lehder Constr. Co., Engineers Bldg. About $40,000.

★**O., Cleveland**—W. S. Tyler Co., East 36th St. and Superior Ave., let contract building 4 story, 60 x 260 ft., rein.-con., brick and steel factory, rein.-con. flooring, brick and concrete foundation, to S. W. Emerson Co., 1900 Euclid Ave. About $200,000. Noted Dec. 2.

★**O., Cleveland**—Cataract Motor Sales Co., 8812 Bway., let contract building 3 story, 77 x 250 ft., rein.-con., brick and steel garage, rein.-con. flooring, brick and concrete foundation, at 8807 Bway., to Craig Curtis Co., East 46th St. and Prospect Ave. About $150,000. Noted March 11.

★**Ill., Area**—See "Buildings."

★**Ill., Chicago**—Narowetz Heating & Ventilating Co., 223 West Lake St., let contract building 1 story, 81 x 132 ft., concrete and brick factory, concrete foundation, 1711-17 West Park Ave., to Erickson & Johnson, c/o A. S. Alshuler, archt., 28 West Jackson Blvd. About $75,000.

★**Ill., Chicago**—Railway Steel Spring Co., 30 Church St., New York City, let contract building concrete, brick and steel addition to factory, rein.-con. flooring, concrete foundation, on Chicago Heights, here, to McClintic-Marshall Co., 50 Church St., New York City. About $60,000.

★**Ind., Lafayette**—Chicago, Indianapolis & Louisville Ry. Co. (Monon Route), 608 South Dearborn St., Chicago, let contract building 1 story, 85 x 440 ft. car repair shop, brick and concrete, concrete foundation, here, to A. E. Kemmer, 644 North 7th St. About $105,000.

★**Mo., Maplewood** (St. Louis P. O.) — St. Louis Paper Can & Tube Co. let contract building 1 story, 200 x 540 ft., concrete, brick and steel factory, on Big Bend Rd. along tracks of Missouri Pacific R.R., to Widmer Eng. Co., Century Bldg., St. Louis. About $500,000.

★**Cal., Los Angeles**—See "Buildings."

Buildings

PROPOSED WORK

Me., Houlton — Bank — Farmers Natl. Bank plans to build brick and stone, on Market Sq. About $75,000. E. L. Higgins, 95 Exchange St., Portland, archt.

N. H., Portsmouth—Surgical—Portsmouth Hospital, Junkins Ave., having sketches made by Kendall, Taylor & Co., archts. and engrs., 93 Federal St., Boston, for 3 story, concrete, brick and steel, concrete foundation. About $150,000.

Mass., Amherst — Laboratory — Massachusetts Agricultural College plans to build physics laboratory on campus. About $200,000. Architect not selected.

Mass., Cambridge (Boston P. O.) — Restaurant—Albiani Lunch, 150 High St., Boston, plans to alter and build addition on Massachusetts Ave. and Pearl St., here. About $100,000. Private plans.

Mass., Gardner — School — City plans to build 2 story addition on Prospect St. About $75,000. O. A. Hoban, chn. school comn. Architect not selected.

Mass., Framingham—Church and Parish House—First Parish Unitarian Church, having plans prepared by C. M. Baker, archt., 67 Milk St., Boston, for 1 story, 45 x 96 ft. church and 2 story 40 x 75 ft. parish house, brick and concrete. About $80,000.

Mass., Linwood—School—Church of Good Shepard rejected bids building 2 story, 62 x 88 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation. About $75,000. Project postponed until spring. Private plans. Noted Nov. 18.

Mass., Pittsfield—Bank—Berkshire Loan & Trust Co., 24 North St., plans to build bank on North and School Sts. About $75,000. M. Engrand, chn. bldg. com. Architect not announced.

Mass., Roslindale (Boston P. O.)—Club—Masonic Apartments, Mt. Vernon St., Boston, had plans prepared by H. B. Alden, archt., and engr., 15 Exchange St., Boston, for 3 story, 70 x 112 ft., concrete and steel, concrete foundation, on Belgrade Ave., here. About $75,000.

Mass., Springfield — Church — Liberty Methodist Church, 4 Harvard St., plans to build 1 story, on Carew, Liberty and Stockman Sts. About $75,000. C. O. Ford, supt. Architect not selected.

Mass., Springfield — Club — Associated Lodges of Odd Fellows, 182 Summer Ave., having plans prepared by E. C. and G. C. Gardner, archts., 33 Lyman St., for 4 story, brick and stone. About $100,000. L. W. White, chn.

Mass., Springfield — Community — First Baptist Church having plans prepared by H. L. Sprague, archt., 310 Main St., for brick community building and parish house. About $75,000.

Mass., Springfield — High School — Bd. Educ. plans to build 3 story, concrete, brick and steel. About $800,000. Architect will soon be selected from competitive plans. Noted Nov. 25.

Mass., Springfield—Memorial—City plans to build brick and steel, to contain assembly hall, club rooms, meeting rooms, etc. About $200,000. Architect not selected.

N. J. Lyndhurst (Rutherford P. O.)—School—Bd. Educ. plans to build P. S. 7, 2 story, 81 x 146 ft., brick and concrete. About $190,000. A. L. Vegliante, 42 Passaic Ave., Garfield, archt.

R. I., Pawtucket—Restaurant—J. and Coats Inc., 366 Pine St., plan to build story, 44 x 230 ft. mill construction plant. About $75,000. Private plans.

Conn., Bristol—Club—B. P. O. E., South St., plans to build 2 story, brick, concrete addition. D. F. Crowley, 192 M St., archt.

Conn., Hamden (New Haven P. O.) Temple—F & A Masons of Hamden plan build brick and steel, on Whitney Ave. About $75,000. Architect not selected.

Conn., Hartford—Hotel—Heublein Hotel, 98 Wells St., rejected bids and having revised plans prepared by Lockwood, Greene & Co., archts., 60 Federal St., Boston, altering 6 story, on Wells and Mulberry Sts. About $75,000. Noted Dec. 2.

Conn., Manchester—School—City plans build 2 story, brick and steel, in Manchester Green Dist. About $75,000. Architect not announced.

Conn., Meriden—Hospital—Meriden City Hospital, Cook Ave., plans to build addition. About $300,000. C. S. Palmer, 114 Whitney Ave., New Haven, archt. Noted July 22.

Conn., Middletown—Hospital—Middlesex Hospital, 28 Crescent St., rejected bids and having revised plans prepared by Buck & Sheldon, Inc., archts., 60 Prospect St., Hartford, for 3 story, 40 x 100 ft., concrete brick and steel addition. About $250,000. Noted Nov. 11.

Conn., New Britain — Club — Palmer & Ludorf, archts., Mutual Bldg., soon receive bids building 3 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Franklin Sq., for Knights of Columbus (Daly Council), 434 Main St. About $200,000. Noted Aug. 5.

Conn., New Britain—Home and Club—Polish Home Inc., c/o Palmer & Ludorf, archts., Mutual Bldg., had plans prepared for 4 story, 70 x 150 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on North St. About $200,000.

Conn., New Britain—Synagogue—Sons of Isreal plan to build 1 story, brick and steel on Summer and Winter Sts. About $75,000. Address S. W. Menur, 398 Main St. Architect not announced.

Conn., Putnam—Business — Kaminsky & Wolfe, 160 Providence St., plan to build 2 story, brick and rein.-con., on Main St. About $75,000. Private plans.

Conn., Rockville—Theater and Store—A. M. Burke, 6 Village St., plans to build on Park St. About $75,000. Architect not selected.

Conn., Thomaston—High School—Town plans to build brick, concrete and steel, on Grand and Main Sts. About $150,000. F. A. Webster, 51 West Main St., Waterbury, archt. Noted Mar. 4.

Conn., Waterbury — Armory — Military Emergency Bd., State Armory, Hartford, having plans prepared by Payne, Griswold & Keefe, archts., Manwaring Bldg., New London, for 3 story, brick, concrete and steel, on Field St., here. Cost between $350,000 and $400,000. Noted Nov. 25.

Conn., Watertown—Church—Italian Congregational Church having plans prepared by F. A. Webster, archt., 51 West Main St., for 2 story, brick and steel, on Union St. About $100,000.

N. Y., Brooklyn—Exchange—New York Telephone Co., 15 Dey St., New York City, having sketches made by McKenzie, Voorhees & Gmelin, archts., 1123 Bway., New York City, for rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Willoughby Ave. and Bridge St. About $1,000,000.

N. Y., Rochester—Hotel—Gordon & Kaelber, Sibley Blk., soon let contract building 9 story, rein.-con., brick, steel, stone and terra cotta, rein.-con. flooring, concrete foundation, on East Ave. J. A. Armstrong, 127 North Dearborn St., Chicago, archt. Noted Aug. 5.

Pa., Harrisburg—Hospital—Dir. Polyclinic Hospital, Front and Harris Sts., opens bids about March 1, building 3 story, 55 x 120 ft., brick, concrete and steel, M. I. Kast and T. M. Keiker, 222 Market St., archts.

Pa., Phila. — Church — Berean Baptist Church, care of G. W. Savage, archt. Witherspoon Bldg., plans to build 1 story, stone, at 59th and Pine Sts. About $100,000.

Pa., Pittsburgh—Theatre and Stores—Rowland & Clark Theatre Co., Jenkins Arcade, having plans prepared by H. S. Baer, archt., Vandergrift Bldg., for 2½ story, 70 x 160 ft., brick and steel, rein.-con. flooring, on Murray Ave. and Darlington St. About $200,000.

Buildings (Continued)

Md., Baltimore — Office — Union Trust Bldg. Co., Fayette and Charles Sts., having plans prepared by J. Pennington, archt, 330 North Charles St., for 2 story, 100 x 250 ft., brick and steel addition. About $75,000. J. M. Dennis, pres.

W. Va., Huntington—Y. M. C. A. plans campaign in February to raise $300,000 to construct building.

W. Va., Weirton—Theatre—B. Rabinovitz receives bids about April 1 building 4 story 50 x 132 ft. brick, terra cotta, concrete, marble and tile. M. F. Gresey, German Bank Bldg., Wheeling, archt.

Fla., Tampa—Exhibt—Southern Florida Fair Assn., Penn. Telephone Bldg., having plans prepared by Logan Bros., archts. and engrs., 305 Dawson-Thornton Bldg., for 2 story, 50 x 225 ft. concrete, at Fair Grounds. About $75,000.

O., Akron—Theater and Office—J. Eberson, archt., 64 East Van Buren St., Chicago, Ill., soon lets contract building 10 story, 133 x 225 ft., rein.-con., rein.-con flooring, concrete foundation, for Akron Prospect Co., here. About $1,250,000.

O., Cleveland—Church—East Glenville Methodist Episcopal Church, care of E. M. Lewis, pastor, 12701 St. Clair Ave., plans campaign to raise $150,000 to build 1 story, brick, steel and stone, brick foundation, on Lancelot and St. Clair Aves. Architect not selected.

O., Cleveland—Commercial—M. Gusman, care of Import Dry Specialties Co., 326 Champlain Ave., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Prospect Ave. and East 30th St. About $300,000. Architect not selected.

O., Cleveland—Commercial, etc.—Realty Syndicate Co., care of F. Riley, 309 Williamson Bldg., opens bids about Dec. 20, constructing 4 story, 116 x 240 ft. commercial building and garage, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 79th St. and Hough Ave. About $300,000. J. M. Dyer, Ulmer Bldg., archt.

O., Cleveland—Commercial—A. D. Taylor, 1900 Euclid Ave., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, brick foundation, at 4412 Prospect Ave. About $100,000. Architect not selected.

O., Cleveland—Restaurant—Peacock-Inn Co., c/o H. Lee, 304 Superior Ave., having plans prepared by Serv. Constr. Co., archts., 6110 Euclid Ave., for remodeling 1 story, marble and iron, at 2010 Euclid Ave. About $100,000. Noted Nov. 25.

O., Cleveland — School — Bd. Educ., East 6th St. and Rockwell Ave., had plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 1 story, 210 x 350 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Diana and Darley Aves. About $750,000. F. Hogan, clk. Noted June 10.

O., Cleveland—School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., for 1 story, rein.-con., brick and steel, rein.-con flooring, brick foundation, on Broadview Ave. and Spring Rd. About $750,000. F. G. Hogan, clk.

O., Cleveland—Theatre and Commercial —P. Jacobson and A. J. Heiman, c/o N. Petti, archt., Williamson Bldg., plans to build 2 story, 60 x 110 ft., brick and steel, brick foundation, on East 60th St. and St. Clair Ave. About $150,000.

O., Cleveland—Theatre and Offices—M. Makof, 3533 Woodland Ave., plans to build 15 story, 50 x 130 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, at 1882 East 9th St. About $2,000,000. Architect not selected.

O., Conneaut—High School—Bd. Educ. having preliminary plans prepared by Bartholomew, McCullough & Smith, archts., Ferguson Bldg., Pittsburgh, Pa., for 2 story, 200 x 250 ft., fireproof, on Watson St. About $350,000.

O., De Graff—School—Bd. Educ. plans to build 2 story, 120 x 125 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation. About $160,000. G. R. Walker, Conover Bldg., Dayton, archt.

O., Findlay — Children's Home — Comrs. Hancock Co. having plans prepared by Glass & Austin, archts., Gas Co. Bldg., Columbus, for 2 story, 40 x 110 ft., brick and concrete. About $100,000.

O., Steubenville—Theatre—G. Shafer, 1103 Chapline St., Wheeling, W. Va., purchased site here, and plans to build 3 or 4 story theatre, 2,000 seating capacity. About $300,000. Architect not selected.

Ind., Flint—School—D. O. Oury, trustee, Angola, receives bids in January, building 2 story, 80 x 80 ft., brick, here. About $75,000. A. H. Ellwood & Son, Elkhart, archts.

Ind., Hammond—School—Bd. Educ. plans to build 2 story, 100 x 150 ft., brick and stone. About $400,000. J. T. Hutton & Son, Hammond, archts.

Ind., Hartford City—Hospital—Comrs. Blackford Co. plan to build 2 story, 75 x 100 ft., brick and stone. About $85,000. E. H. Turnock & Son, Elkhart, archts.

Ind., Indianapolis—Clubhouse—Park Bd. plans to build 2½ story, 75 x 140 ft., rein.-con. hollow tile and stucco, in Riverside Park. About $100,000. J. Parish, City Engrs. Dept., City Hall, archt.

Mich., Detroit—Lodge House—Palestine Assn., 510 Fort St., having plans prepared by A. E. Harley, archt., care of Com. of Architects, 2631 Woodward Ave., for 10 story, 150 x 180 ft. rein.-con., brick, stone and steel, rein.-con. flooring concrete foundation, on Charlotte St. About $2,000,000.

Mich., Detroit—Theatre and Office—Tatli & McKay, care of P. R. Rossello, archt., 406 Congress Bldg., having plans prepared for 2 story, 123 x 146 ft. rein.-con., brick and steel, concrete foundation, on Shoemaker and Hurlbut Aves. About $150,000.

Mich., Grand Rapids — High School — Catholic Central High School having plans prepared by H. L. Mead, archt., Grand Rapids, for 4 story rein.-con., brick and steel, rein.-con flooring, concrete foundation. About $300,000.

Mich., Lansing —Industrial College—Michigan State Industrial School, East Lansing St., plans to construct new institution, comprising 36 buildings. F. M. Landon, ch. engr.

Mich., Ontonagon — Bank — First Natl Bank having plans prepared by A. Moorman & Co., archts., Chamber of Commerce Bldg., St. Paul, for 2 story, 32 x 70 ft. rein.-con., brick and tile. About $80,000. B. F. Barze, cashier.

Mich., Wakefield—Memorial—City having preliminary plans prepared by Herbst & Kuenzli, archts., Caswell Blk., Milwaukee, Wis., for 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation. About $250,000.

Ill., Champaign—Church—W. E. Frawley, 409 West Clark St., having plans prepared by Z. T. Davis, archt., 64 East Van Buren St., Chicago, for 1 story, 60 x 125 ft., rein.-con. and stone, rein.-con. flooring, concrete foundation. About $200,000.

Ill., Chicago—Bank—Z. T. Davis, archt., 64 East Van Buren St., preparing plans and opens bids in May, building 2 story, 38 x 125 ft., rein.-con. and lime stone, rein.-con. flooring, concrete foundation, for West Englewood Savings Bank, Marshfield Ave. and 63rd St. About $125,000.

Ill., Cicero—School—Ashby, Ashby & Schulze, archts., 178 West Jackson Blvd., Chicago, soon let contract building 2 story, 60 x 100 ft., rein.-con. addition, concrete foundation, on 58th and West 18th Sts., for D. H. Burham School, here.

Ill., Evanston — Church — First Baptist Church having plans prepared by Tallmadge & Watson, archts., 189 West Madison St., Chicago, for 1 story, rein.-con. and steel, concrete foundation. About $175,000. pared by Tallmad

Ill., Hillsdale—School—Bd. Educ. receives bids in February building high school. About $75,000. Cervin & Horn, 310 Safety Bldg., Rock Island, archts.

Ill., Moline—Church—Sacred Heart Parish, 419 East 11th St., plans to build 1 story, 40 x 85 ft., rein.con. and stone, rein.-con. flooring, concrete foundation. About $200,000. Z. T. Davis, 64 East Van Buren St., Chicago, archt.

Wis., Antigo — High School — Bd. Educ. having plans prepared by Oppenhamer & Obel, archts., Wausau, for junior high school 2 story, concrete and brick, rein.-con. flooring, concrete foundation. About $200,000. Noted Dec. 2.

Wis., Chippewa Falls — School — Bd. School Trustees receives bids about Feb. 1, building junior and vocational school, 2 story, 125 x 160 ft., rein.-con., brick and tile, rein.-con. flooring, concrete foundation. About $150,000. Beers, Schlintz & Bailey, Chippewa Falls, engrs. and archts.

Wis., Durand—School—Bd. Educ. having plans prepared by Oppenhamer & Obel, archts., Wausau, for high and grade school, 2 story, concrete, brick and tile, rein.-con. flooring, concrete foundation. About $100,000. H. Miles, secy. Noted Aug. 26.

Wis., Fond du Lac—School and Sisters' Home—St. Patrick's Catholic Church having plans prepared by J. F. Stepnoski, archt., 144 Marquette Ave., for rein.-con. and brick. About $75,000. R. M. Milleb pastor.

Wis., Kenosha—Club House—Knights of Columbus, c/o W. Burke Bldg., receiving sketches for 2 or 3 story, 80 x 100 ft., concrete and brick, rein.-con. flooring, concrete foundation, on Market Sq. About $150,000. Architect and engineer not selected.

Wis., Milwaukee—Memorial—Civic Comm. plans to build rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on 8th and Cedar Sts. About $1,500,000. D. W. Hoan, City Hall, mayor. Architect and engineer not selected.

Ia., Burlington—Church and Community —St. Paul Methodist Church having plans prepared for 2 story, rein.-con., brick and stone, on North Hill St. About $100,000. W. Ludwig, pastor. Architect not announced.

Ia., Dubuque—High School—Bd. Educ. having plans prepared by J. W. Foyer, archt., Urbana, Ill., for 3 story, rein.-con., brick, tile and steel. About $500,000. L. Palen, secy.

Ia., Dubuque—Home—St. Joseph Mercy Hospital, Peacock and James Sts., receives bids in spring building superstructure of novitiate mothers house, rein.-con. and brick, on Asbury Rd. About $100,000. Architect not announced.

Ia., Fayette—College—Bd. Trustees Upper Iowa University, plans campaign to raise $1,000,000 to build college. Architect not announced.

Ia., Ft. Dodge—Hospital—Lutheran Congregations in Webster, Pocahontas, Calhoun, Hamilton, Boone and Greene Counties, care of J. M. Herbst, Webster City, plan to build 3-4 story, rein.-con., brick and tile, here. About $450,000. Architect not announced.

Ia., Lenox—Memorial Community—City plans to build 3 story, rein.-con. and brick, to include auditorium and gymnasium. About $200,000. W. R. George, clk. Architect not selected.

Ia., Ottumwa—Church—Roman Catholic Church receives bids about Jan. 3, building 1 story, 65 x 120 ft., rein.-con. and brick. About $75,000. F. M. Hoppman, pastor. H. P. Hess, 4811 Brilliant Ave., St. Louis, Mo., archt.

Ia., Sioux City — Administration — Bd. Educ. having plans prepared by Beuttler & Arnold, archts., 235 Grain Exch. Bldg., for 3 story, 138 x 138 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000.

Ia., Sioux City—Hospital, Police and Fire Stations— City plans to build 3 story, 150 x 150 ft., rein.-con. and brick, on 5th and Iowa Sts.; police and fire stations will occupy first and second floors, hospital, third floor. About $225,000. Address J. R. Mann., Pub Safety Dept. Architect not selected.

Ia., Washington — Hotel — Washington Hotel Co. having plans prepared by C. A. Dieman & Co., archts., 408 Granby Bldg., Cedar Rapids, for 4 story, 60 x 120 ft., rein.-con., brick and tile. About $350,000. J. M. Wilson, pres.

Minn., Bellingham — High School — Bd. Educ. having plans prepared by Croft & Boerner, archts., 1006 Marquette Ave., Minneapolis, for 2 story, 50 x 140 ft. rein.-con. and brick. About $80,000. J. L. Mittelstadt, clk.

Minn., Duluth—Hospital—T. W. Hugo, chn. Miller Memorial Hospital Bd. receives bids about April 1, building 3 story, 100 x 200 ft. rein.-con., brick steel and tile, rein.-con. flooring, concrete foundation, on 5th Ave. E and 2nd St. About $250,000. German & Jenssen, Exch. Bldg., archts.

Minn., Hendricks—School—Bd. Educ. having plans prepared by K. T. Snyder, archt., 739 Plymouth Bldg., Minneapolis, for 2 story, rein.-con., brick and tile. About $75,000. N. O. Lien, clk.

Minn., Minneapolis — Auditorium — Civic Music League, 806 Nicollet Ave., plans to build 10 story, rein.-con., brick, tile and stone. About $1,000,000. F. J. Miller, pres. Bertrand & Chamberlin, 606 Northwestern Bank Bldg., archts.

Minn., Minneapolis — Clubhouse — James Ballantyne Post, Veterans of Foreign Wars, care of J. J. Walsh, 3100-3rd Ave., S., having plans prepared by Forsell & Lindell, 319 Meyers Arcade and E. R. Ludwig, 512 Essex Bldg., associated archts., for 2 or 3 story, 92 x 128 ft. rein.-con. and brick on Lake St. and Harriet Ave. About $100,000.

Minn., Minneapolis — High School — Bd. Educ. having plans prepared by E. H. Enger, archt., 305 City Hall, for 2 or 3 story, rein.-con., brick, steel and tile, on 6th St. and 13th Ave. S. E. About $700,000.

Buildings (Continued)

Minn., Minneapolis — High School — Bd. Educ. having plans prepared by E. H. Enger, archt., 305 City Hall, for Nokomis Junior High School, 2 or 3 story, rein.-con., brick, steel and tile, on 20th Ave. S. and 41st St. About $700,000.

Minn., Sherburne — High School — Bd. Educ. plans to build 2 story, rein.-con., brick and tile. About $85,000. J. Schott, Clk. Architect not selected.

Kan., Wichita—Office—G. Theis, Jr., Schweiter Bldg., plans to build 14 story, 150 x 150 ft., at 113 North Lawrence St. About $500,000. Engineer and Architect not selected.

S. D., Philip — School — Consolidated School Dist., Iowa Twp., Haakon Co., plans to build 2 story, rein.-con., brick and tile. About $75,000. N. Duryea, co. supt. Architect not selected.

S. D., Redfield — Memorial—Citizens Com., c/o M. C. Johnson, Aberdeen, plan to build 2 or 3 story rein.-con., brick and tile, here. About $100,000. Architect not announced.

S. D., Sioux Falls—Memorial—State Building Comn., Robinson Pierre, plans to build 2 or 3 story, rein.-con., brick and stone soldiers' memorial, here. About $200,000. Architect not announced.

S. D., Watertown — High School — Bd. Educ. plans to build 2-3 story, rein.-con., brick, tile and steel. About $250,000. M. A. Herzel, clk. Architect not selected.

N. D., Langdon—Hospital—Cavalier Co. and other organizations plan to build 3 story, soldiers' memorial hospital, concrete, brick and steel. About $200,000. Architect not announced.

Tex., San Antonio—Hospital—A. B. Ayres, archt., Bedell Bldg., opens bids about Jan. 15, building 4 story, rein.-con., brick and stone addition, on Houston St. About $400,000. Owners name withheld.

Okla., Miami—Theatre—G. G. Robinson having plans prepared by F. W. Hunt, archt., Miami, for 2 story, 40 x 120 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation. About $75,000.

Utah, Salt Lake City—Club—B. P. O. E. 85, 59 South State St., plan to build 6 story, rein.-con., on South Temple St. About $400,000. Scott & Welch, Dooly Bldg., archts. and engrs.

Utah, Salt Lake City—High School—Bd. Educ. soon lets contract building 2 story, 68 x 218 ft. Junior High School, rein.-con. and brick. F. D. Rutherford, 669 2nd Ave., archt. and engr.

Wash., Seattle — Education Hall — University of Washington, University Campus, having plans prepared by Bebb & Gould, archts., Securities Bldg., for 4 story, 75 x 225 ft. About $330,000.

Cal., Los Angeles — Church — St. John's Episcopal Church having plans prepared by B. C. Goshue, archt. and engr., 2 West 47th St., New York City, for brick and stone, on Figueroa and Adams Sts. About $500,000.

Cal., Los Angeles—Church—West Adams Presbyterian Church plans to build church on West Adams and Juliet Sts. About $150,000. W. H. Fishburn, 2101 Bonsallo St., pastor.

Cal., Los Angeles—Hotel—McCarthy Co., Union Oil Bldg., having plans prepared for addition to New Hotel Rway., on Hill St. About $150,000. Architect not announced.

Cal., Pasadena—Y. M. C. A., 721 South Hope St., having preliminary plans prepared by J. Morgan, archt., Merchants Bank Bldg., San Francisco, for new building. About $350,000.

Cal., San Diego—High School—Bd. Trustees having plans prepared by T. C. Kistner, archt., 1st Natl. Bank Bldg., for high school for Crossmont Union School Dist. About $110,000. A. B. Foster, pres.

Cal., San Luis Obispo — Schools — City plans election to vote on $373,000 bonds for construction of new schools and remodeling of old ones. O. L. Clark, San Luis Obispo, and J. J. Donavan, 414 13th St., Oakland, archts.

Cal., Santa Barbara—Pavillion—Syndicate is being formed to erect concrete pavillion, on West Cabrillo Blvd. About $80,000. H. B. Osgood, 329 West Ortego St., pres. and archt.

Ont., Brantford — School — Bd. Educ. plans to build 3 story, 30 room concrete, brick and steel, rein.-con. flooring, concrete foundation. About $300,000. Architect not selected.

Ont., Gravenhurst—Hospital—Bd. Governors, Muskoka Free Hospital for Consumptives, receives bids in January constructing hospital here. About $25,000.

Ont., Hamilton — School — Dept. Educ., Toronto, soon receives bids building technical school here. About $600,000.

Ont., London—High School—Bd. Educ. care of R. M. McElheran, Hydro Offices, having plans prepared by L. E. Carrothers, archt., Hydro Offices, and receives bids about Feb. 1, building three 2 story, 100 x 220 ft., brick and stone. About $750,000.

Ont., Ottawa—Hospital—Grey Nuns, Water St., plan to build 3 story, rein.-con. and steel addition, rein.-con. or hollow tile flooring, concrete foundation. About $200,000. Architect not selected.

Ont., Windsor—School—Bd. Educ. plans to build 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. Architect not selected.

BIDS DESIRED

N. Y., New York—Office—Until Dec. 20, by Ballinger & Perrott, archts. and engrs., 47 West 34th St., building 2 story, brick and stone, brick foundation, on Charlton St., for J. D. Johnson, Cliff St. About $100,000. Noted Nov. 18.

N. J., Linwood—Club and Locker House, etc.—Until Dec. 23, by McLanahan & Bencker, archts., Bellevue Court Bldg., Phila., constructing two 2 story, 60 x 150 ft., concrete and granite, for Linwood Country Club. About $75,000. Noted Oct. 14.

Pa., Pittsburgh—Bank and Office—Until Dec. 20, by Trowbridge & Livingston, archts. and engrs., 527-5th Ave., New York City, building 4 story, 120 x 130 ft., brick and steel, brick foundation, on Smithfield St., for Mellon Natl. Bank, 514 Smithfield St. Noted Jan. 29.

Md., Baltimore—Hospital—University of Maryland, Greene and Lombard Sts., receiving bids building 4 story, 48 x 250 ft., rein.-con., brick and steel addition, concrete foundation. About $75,000. J. M. Rowland, dean. Flourney & Flourney, 306 St. Paul St., archts.

Ky., Lexington—Dormitory—Until Dec. 20, at office of F. L. McVey, pres. University of Kentucky, building 3 story, brick and steel, rein.-con. flooring, concrete foundation. About $75,000. Coolidge & Shattuck, 122 Ames Bldg., Boston, archts.

O., Niles—Hospital—Niles City Hospital receiving bids building 3 story, 50 x 120 ft., rein.-con., brick and steel, rein.-con. flooring, brick foundation. About $100,000. Thayer & Johnson, New Castle, Pa., archts.

Ind., Ft. Wayne—School—Bd. Educ. receiving bids building 2 story, 80 x 100 ft., rein.-con. and brick, rein.-con., maple and terrazzo flooring. About $200,000. G. Mahurin, Indianapolis, archt. Snider & Rotz, 703 Merchants Bank Bldg., Indianapolis, engrs.

Ind., Indianapolis—School—W. H. Evans, trustee, 412 Saks Bldg., receiving bids constructing 2 story, 60 x 90 ft., brick and Bedford stone addition to school in Center Twp. About $95,000. E. J. Ostling, Indianapolis, archt.

Mich., Eloise—Hospital and Home—Until Dec. 31, by McFarlan, Maul & Lenz, archts., 1259 David Whitney Bldg., Detroit, building 3 story, 100 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here, for Wayne Co. Poor Bd., c/o E. J. Jeffries, pres., 1804 West Grand Blvd., Detroit. About $300,000. Noted June 24.

Wis., Spooner—High School—Until Jan. 17, by Bd. School Trustees, building junior high school, 2 story, 75 x 130 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Main St. About $75,000. W. L. Alban, 347 Endicott Bldg., St. Paul, Minn., archt. and engr.

Kan., Oakley—Business—L. L. Moore, Merchant Co. & F. E. Churchill Hardware Co. receiving bids for 2 story, 76 x 110 ft., rein.-con., steel and brick, rein.-con. flooring and concrete foundation. About $85,000. C. W. Shaver, Salina, archt.

Tex., Lubbock—Hospital—Until Jan. 20, by H. T. Phelps, archt., Gunter Bldg., San Antonio, building 4 story, 50 x 105 ft., rein.-con and stone, for West Texas Sanitarium Assn. About $100,000.

Cal., Atascadero—High Schools—Until Dec. 20, by Bd. Trustees, Margarita Blk., Union High School Dist., building new schools. About $200,000. E. B. Dykes, 305 Administration Bldg., clk.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Malden** (Boston P. O.)—Parish House—Sacred Heart Roman Catholic Church, Main St., let contract building 2 story, 55 x 65 ft., brick and tile, concrete foundation, to J. F. Griffin Co., 17 Milk St., Boston. About $75,000.

★**Mass., New Bedford** — Schools — Educ. let contracts building P. S. story, 170 x 250 ft., on Rochambe and P. S. 2, 2 story, 173 x 250 ft. o Pleasant St., concrete, brick and rein.-con. flooring, concrete foundatio J. W. Bishop Co., 109 Foster St., Wo ter. About $700,000 each. Noted Dec

★**Mass., Springfield**—Theatre—Jeff Co., 183 North Main St., let contract i ing 1 story, concrete, brick and steel, r con. flooring, concrete foundation, on N Main and Jefferson Sts., to E. J. Pi Inc., 374 Main St. About $75,000.

★**N. Y., Brooklyn**—Clubhouse—Y. M A., 189 Montague St., will build 8 st brick, steel and stone, concrete founda on South Rodney St. About $400,000. L. Rubinstein, pres. Work will be done day labor.

★**N. Y., Brooklyn**—Stores—J. Colyer, St. Marks Ave., will build several 1 story brick and steel stores brick foundatio on plot 165 x 200 ft. on Eastern Parkwa and Bedford Ave. About $125,000. Work will be done by day labor.

★**N. Y., Brooklyn** — Theatre — Sachs Realty & Import Co., 184 Floyd St., will build 1 story, 75 x 100 ft., brick and stone brick foundation, on De Kalb and Central Aves. About $125,000. J. Sachs, pres Work will be done by day labor.

★**N. Y., Liberty**—Hotel—M. Joelson, 932 Kelly St., New York City, will build 4 story, brick and stone, concrete foundation, in Catskill Mts., Sullivan Co., near here About $75,000. Work will be done by day labor.

★**N. Y., New York**—Recreation Center—Bronx Jewish Center, c/o L. A. Abramson, archt., 48 West 46th St., will build 4 story, brick and steel, brick foundation. About $150,000. Work will be done by day labor under supervision of architect. Noted May 13.

★**N. Y., New York**—Synagogue—Beth Hamedrieth-Shaary Zion Inc., 752 Rway., will build brick and stone, brick foundation, on Marmion Ave. and 178th St. About $200,000. I. J. Levy, pres. Work will be done by day labor.

★**N. J., Atlantic City**—Fire House—City let contract building 3 story, brick and stone, brick foundation, to J. Beaumont, Atlantic City. About $250,000. Noted Nov 11.

★**N. J., Trenton**—School—Blessed Sacrament Church let contract building 3 story, 53 x 119 ft., brick, steel and stone, rock foundation, to J. A. Maher, Stuyvesant St About $115,000. Noted Nov. 18.

★**Pa., Harrisburg**—Store and Office—Cotterrel—Ebner Co., 2nd and Locust Sts., let contract building 4 story, 50 x 90 ft., brick and steel, on North 2nd and Locust Sts., to Central Constr. Co., Market St About $75,000; cost plus percentage basis.

★**Pa., Phila.**—Church—Sherwood United Presbyterian Church, c/o C. W. Bolton, archt., Witherspoon Bldg., let contract building 1 story, 60 x 100 ft., concrete and stone, on 56th and Willows Sts., to Turner Constr. Co., 1713 Sansom St. Cost to exceed $100,000. Noted July 22.

★**W. Va., Charleston**—Church—Ruffner Memorial Presbyterian Church let contract building 2 story, 70 x 72 ft., rein.-con. and steel, Bedford stone foundation, on Quarrier St., to Higginbottom & Knapp, Charleston Natl. Bank Bldg. About $100,000; cost plus percentage basis.

★**O., Cleveland**—Bank—Superior Natl. Savings & Trust Co., Kirby Bldg., let contract remodeling 1 story, brick, steel and marble, on West 6th and Superior Sts., to J. Gill & Son Co., Citizens Bldg. About $75,000.

★**O., Cleveland** — Commercial — Conelly Co., 1242 Superior Ave., let contract building 3 story, 60 x 75 ft., rein.-con., brick and steel, rein.-con. flooring, brick foundation, on East 12th St. and Superior Ave., to F. C. Kittinger Co., 1450 East 111th St About $100,000.

★**O., Cleveland**—Commercial—S. Newman, 9112 Parkgate Ave., let contract building 1 story, 80 x 108 ft., brick and steel, brick foundation, on Hayden and Belmont Aves., to J. Miller, 2426 East 46th St. About $75,000.

★**O., Cleveland** — Commercial — G. Paul, Citizens Bldg., will build 2 story, 80 x 150 ft., brick and steel, brick foundation, on East 84th St. and Euclid Ave. About $85,000. Work will be done by day labor.

★**O., Cleveland**—Commercial, etc.—C. Webber let contract constructing 2 story, 40 x 56 ft., brick and steel commercial building and bakery, brick foundation, on West 25th St., to F. Dieffenback, 3217 West 92nd St. About $75,000.

Buildings (Continued)

★**Mich., Detroit** — Library — Library Comn., Library Bldg., let contract building 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Waterman and Fort Sts., to W. Brown, c/o Stratton & Snyder, archts., Union Trust Bldg. About $75,000.

★**Mich., Detroit**—Mercantile—Frank & Seder, c/o Smith, Hinchman & Grylls, Archts., 710 Washington Arcade, let contract building 8 story, 60 x 100 ft. rein.-con., brick, steel and stone, on Woodward Ave., to Thompson Starret Co., Lincoln Bldg, Noted Oct. 28.

★**Mich., Marquette**—Hotel—Kawbawgam Hotel Co. let contract building 7 story, 60 x 124 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Front St., to W. G. Miller, Marquette. About $300,000.

★**Mich., River Rouge**—High School— Bd. Educ. c/o A. R. Heuer, let contract building 3 story, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Dearborn Rd., to Bryant & Detwiler, 2336 Dime Bank Bldg., Detroit. About $1,000,000.

★**Ill., Area** — Seminary — Catholic Archdiocesam of Chicago let contracts constructing 3 story, 160 x 200 ft. dormitory, 1 and 2 story, 100 x 100 ft. power house, 2 story, 57 x 160 ft. lecture hall, 1 story, 80 x 80 ft. and 42 x 100 ft. refectory, 2 story, 60 x 100 ft. warehouse, 2 story, 96 x 136 ft. convent hall, all rein.-con., to Thompson-Starrett Co., 175 West Jackson Blvd., Chicago. Future additions will comprise dormitory and faculty house, administration building, library, auditorium, gymnasium, laundry, greenhouse and garage. There will also be 60 x 140 ft. rein.-con. church, cost $500,000. All buildings when completed will cost about $10,000,000. J. W. McCarthy, 139 North Clark St., Chicago, archt.

★**Wis., Oconomowoc**—Theatre—Oconomowoc Theatre Co. let contract building 2 story, 70 x 115 ft., concrete and brick, rein.-con. flooring, concrete foundation, to J. L. Stanage, 144 Oneida St., Milwaukee. About $75,000.

★**Minn., Minneapolis**—Theatre—M. Beck, 1564 Bway., New York City, let contract building 40 x 140 ft. and 115 x 180 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 9th and Hennepin Aves., here, to Thompson-Starrett Co., 175 West Jackson Blvd., Chicago. About $600,000. Noted Oct. 28.

★**Minn., Wayzata**—School—Bd. Educ. let contract building 1 story, 200 x 200 ft., concrete slab, stucco and tile, to Madsen Constr. Co., 848 Builders Exch. Bldg., Minneapolis. $134,915. Noted Aug. 26.

★**Kan., Eldorado**—Memorial Auditorium —City let contract building 1 story, 67 x 137 ft., to Dillenbeck & McGlade, Eldorado. About $63,500. Noted Nov. 18.

★**S. D., Mitchell** — Auditorium — City let contract building 1 story, 142 x 192 ft. rein.-con., brick and steel, on North Main St. and 6th Ave., to Sugarman Bros., 210 Masonic Temple, Des Moines, Ia., $140,450. Noted Nov. 18.

★**Tex., Dallas**—High School—Bd. Educ., Municipal Bldg., let contract building 3 story, concrete and brick, rein.-con. flooring, brick and concrete foundation, on Haskell and McKinney Sts., to Amer. Constr. Co., 411 Gulf Bldg., Houston, about $648,000. Noted Sept. 23.

★**Okla., Shawnee** — High School — Bd. Educ. let contract building 3 story, 75 x 170 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to G. P. Carr, 116 North Bell St., Shawnee. About $250,000. Noted July 1.

★**Utah, Salt Lake City**—Bathhouse—City let contract building 2 story, concrete, on 2nd Ave., to Lynch-Cannon Eng. Co., Dooly Bldg., $177,450.

★**Utah, Salt Lake City**—High School—Bd. Educ. let contract building 2 story, addition to Technical High School, brick and concrete, on 4th Ave. W., to F. W. Carpenter, 234 North Main St., $75,613.

★**Wash., Seattle**—Fire Station—City let contract building 2 story, 120 x 180 ft., rein.-con., rein.-con. flooring, on 4th and Bell Sts., to Hendrickson & Alstrom, 12th and East Union Sts., $156,313. Noted Dec. 2.

★**Col., Johnstown** — High School — Bd. Educ. let general contract building 2 story, 140 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to W. Tamminga, 1620 South Washington St., Denver. About $82,000. Noted Nov. 11.

★**Cal., Los Angeles** — Bank — Bank of Italy, 660 South Bway., let contract building rein.-con., terra cotta, granite, and brick, concrete foundation, to Pozzo Constr. Co., 421 Macy St. About $125,000.

★**Cal., Los Angeles** — Hotel — Theatre — Ambassador Hotel Co., c/o Alexandria Hotel, 210 West 5th St., let contract building hotel, theatre and garage, to W. Crowell, 920 Alvarado St. About $350,000.

★**B. C., Victoria**—Theatre—British Columbia Paramount Theatres Ltd., 963 Granville St., Vancouver, let contract building 2 story, 60 x 143 ft. rein.-con., brick and steel concrete foundation, on Yates and Blanchard Sts., to Luney Bros., Ltd., 508 Sayward Bldg. About $175,000. Noted Oct. 7.

★**Mexico, Saltillo** — College — Methodist Episcopal Church let contract building 3 story, 60 x 200 ft. rein.-con., brick, stone, to Falbo & Marro, San Antonio, Tex., $120,073.

Federal Government Work

PROPOSED WORK

N. Y., New York—Roofing—Spec. 4347—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans roofing Building 120. About $21,000.

Ga., Tybee Island—Quarters, etc., Spec. 4344—Bureau Yards & Docks, Navy Dept., Wash., D.C., plans to construct 2 frame buildings, at Naval Radio Compass Station, here.

Mich., Detroit—Dredging—U. S. Eng. Dept., Post Office Bldg., having estimates made for hydraulic dredging to establish minimum depth of 18 ft., in vicinity of Bridges, River Rouge Project.

Tex., Galveston — Redredging — U. S. Engineer, War Dept., Wash., D. C., rejected bids received Nov. 24, redredging Galveston Channel. Noted Nov. 4.

Wash., Ocean Park—Radio Compass Building—Spec. 4349—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

Wash., Westport—Quarters and Remodeling Barracks—Spec. 4350—Bureau Yards & Docks, Navy Dept., Wash, D. C., plans to build quarters and remodel barracks, here.

Ore., Astoria—Radio Building—Spec. 4351—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here. About $21,000.

Cal., Mare Island—Foundations and Paving—Spec. 4345—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans, here.

Cal., Mare Island—Scrap Metal Bins—Spec. 4346—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build bins for scrap metal. About $40,000.

BIDS DESIRED

Me., Bar Harbor—Fire Protection System —Spec. 4339—Until Dec. 29, by Bureau Yards & Docks, Navy Dept., Wash., D.C., installing at Naval Radio Station, Otter Cliff, here. $10 deposit required for plans and spec. Noted Dec. 2.

N. Y., Brooklyn—Raising Floors—Until Dec. 29, by Treas. Dept., Wash., D.C., raising floors in Annex Building of Post Office, here. J. A. Wetmore, superv. archt.

N. Y., New York City — Post Office — Treas. Dept., Wash., D. C., having plans prepared by L. V. V. Sweezy, archt. and engr., Bible House, for 8 story, 140 x 240 ft., brick and steel, rein.-con. flooring, concrete foundation, at 34-50 Varick St., here. About $800,000.

N. Y., New York—Dredging—Until Jan. 17, by U. S. Engineer, 616 Army Bldg., dredging in Passaic River, N. J.; advertised in this issue.

D. C., Wash.—Concrete Roads, etc.—Spec. 4336—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building concrete roads, retaining wall, drainage system and electric duct system, here, Noted June 24.

Va., Norfolk—Steam Heating System—Until Dec. 29, by U. S. Engineer, Custom House, furnishing labor and material installing in office-storehouse building, at Ft. Story, here; advertised in this issue.

W. Va., South Charleston—Sub-station for Switchboard—Spec. 4308—Until Dec. 29, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing, here. Noted Oct. 14th.

La., New Orleans—Fire Service Mains—Until Jan. 7, by Treas. Dept., Wash., D. C., installing at U. S. Marine Hospital, here. J. A. Wetmore, acting superv. archt.

Wash., Puget Sound—Electric Traveling Bridge Crane—Spec. 4326—Until Jan. 12, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building 5 ton electric traveling crane, here. Noted Nov. 4.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. Y., Brooklyn**—Refrigerator—Spec. 4282—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in Building "F", here, to L. Mundet & Son, Inc., 24 Stone St., New York City, $12,820 (90 days). Noted Dec. 2.

★**Pa., Hog Island**—Radio Compass Building—Spec. 4324—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to J. H. Pierce, 529 Law Bldg., Norfolk, $30,665 (90 days). Noted Nov. 4.

★**Pa., Phila.**—Marine Hospital—Treas. Dept., Wash., D. C., let contract building 2 story extension to Marine Hospital, here, to F. A. Foster Co. 43 South 17th St., $11,900. Noted Oct. 21.

Pa., Phila—Roofing and Repainting, etc.—Treas. Dept., Wash., D. C., received bids Dec. 10, (1) roofing, (2) repainting brick work, in U. S. Mint, here, from F. A. Foster Co., Harrison Bldg., (1) $16,390; J. P. Sullivan Co., Chicago, Ill., (1) $16,970, (2) $1,900; Nelson Pedley Constr. Co., Phila., (1) $18,724, (2) $4,669. Noted Nov. 25.

D. C., Wash.—Smoke Stack—Treas. Dept. received bids Dec. 6, building smoke stack for boiler house of U. S. Pub. Serv. Hospital 32, Mt. Alto, from Weber Chimney Co., Chicago, $5,570; Rust Eng. Co., Dist. Bank Bldg., $7,080; Heine Chimney Co., 123 West Madison St., Chicago, $11,250. Noted Nov. 25.

★**Va., Norfolk**—Steam Distributing System—Spec. 4255—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing steam and hot water mains, here, to N. Clifford Co., Inc., 322-28th St., Newport News, $37,943 (120 days). Noted Dec. 9.

★**Va., Virginia Beach**—Radio Compass Building—Spec. 4321—Bureau Yards & Docks, Navy Dept., Wash, D. C., let contract constructing, here, to H. M. Lucas, 115 Maple St., Portsmouth, $2,450 (45 days). Noted Nov. 4.

★**W. Va., South Charleston**—Distributing System—Spec. 4294—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing, here, to Genl. Electric Co., River Rd., Schenectady, N. Y., $14,565 (175 days). Noted Nov. 25.

★**N. C., Cape Hatteras**—Radio Compass Building—Spex. 4323—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to Donnell-Zane Co., Inc., 350 Broad St., New York City, $20,565 (100 days.) Noted Nov. 4.

★**N. C., Cape Lookout**—Radio Compass Building—Spec. 4320—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to Donnell-Zane, 350 Broad St., New York City, $13,865 (60 days). Noted Nov. 4.

★**N. C., Poyners Hill**—Radio Compass Building—Spec. 4322—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to Donnell-Zane Co., 350 Broad St., New York City, $11,802 (60 days). Noted Nov. 4.

S. C., Spartanburg—Mailing Vestibule, etc.—Treas. Dept., Wash., D. C., received bids Dec. 6, building new mailing vestibule, extending driveway, etc., in Post Office, here, from G. A. Clayton Co, Gould Bldg., Atlanta, Ga., $5,971 (90 days); C. E. Morrill, Jr., Greenville, N. C., $6,983 (120 days); G. E. Wright, Chicago, $8,270. Noted Nov. 18.

★**Fla., Pensacola**—Mooring Mast—Spec. 4314—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building, here, to Carroll Electric Co., 714-12th St., N. W., Wash., D. C., $7,470 (90 days). Noted Dec. 2.

★**Tenn., Chattanooga**—Cement—U. S. Engineer, War Dept., Wash., D. C., let contract furnishing 6,000 bbl. Amer. Portland cement, here, to Dixie Portland Cement Co., James Bldg., $24,240.

★**O., Akron**—Extending Mailing Vestibule—Treas. Dept., Wash., D. C., let contract extending in Post Office, here, to J. Devault, Massillon Rd., Canton, $14,531. Noted Nov. 25.

★**O., Dayton**—Barracks—U. S. Army Natl. Military Home let contract constructing several barracks buildings, brick, concrete foundation, 2 of which will be 3 story, 75 x 200 ft., to Danis-Hunt Constr. Co., 907 Schwind Bldg., $95,936. Noted Aug. 12.

O., Cincinnati—Magnesite Floors, etc.—Until Dec. 27, by Treas. Dept., Wash., D. C.,

Federal Government Work (Continued)

building new magnesite floors and base, at U. S. Marine Hospital, here. J. A. Wetmore, acting superv. archt.

★**Ind., Ft. Wayne**—Mezzanine Floor, etc.—Treas. Dept., Wash., D. C., let contract building in Post Office, here, to G. E. Wright, Inc., Chicago, Ill., $5,750. Noted Dec. 9.

Mich., Battle Creek—Mailing Vestibule, etc.—Treas. Dept., Wash., D. C., received bids Dec. 10, building in Post Office, here, from A. L. Weddel, 212 McCamly Bldg., $3,910; W. Mac Donald Constr. Co., Odd Fielows Bldg., St. Louis, Mo., $5,933; G. E. Wright, Inc., Chicago, Ill., $6,450. Noted Nov. 25.

★**Mich., Kalamazoo**—Remodeling Post Office, etc.—Treas. Dept., Wash., D. C., let contract remodeling and building mailing vestibule, in Post Office, here, from W. MacDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $16,931; G. E. Wright, Inc., Chicago, Ill., $17,850; De Right Bros., Kalamazoo, $18,200. Noted Nov. 25.

Tex., Galveston—Surface Drainage System—Treas. Dept., Wash., D. C., received only bid building at U. S. Quarantine Station, here, from King Lumber Co., Charlottesville, Va., $71,800. Noted Nov. 18.

★**Cal., Sacramento**—Remodeling Post Office and Court House—Treas. Dept., Wash., D. C., let contract remodeling, here, to Hilliard & Pearce, 692 Washington St., New York City, $43,689. Noted Nov. 25.

★**Cal., San Diego**—Quartermasters Storehouse—Spec. 4280—Pub. Wks. Officer, here, let contract building at Marine Barracks, Naval Base, here to Lang & Bergstrom, Timken Bldg., $211,346 (240 days). Noted Dec. 2.

Miscellaneous

PROPOSED WORK

Heating and Ventilating Equipment—Long Island City, N. Y.—C. B. J. Snyder, supt. School Bldg., Municipal Bldg., New York City, rejected bids received Oct. 18, installing heating and ventilating equipment in Bryant High School, on Wilbur Ave. between Acadamy and Radde Sts., here. Work will be readvertised. Noted Oct. 14.

Cement—New York, N. Y.—H. H. Curran, pres. Manhattan Boro, rejected bids received Nov. 18, furnishing and delivering 3,000 bags Portland cement. Noted Nov. 25th.

Station Finish—New York, N. Y.—Pub. Serv. Comn., 49 Lafayette St., rejected bids received Nov. 1, for miscellaneous constriction and station finish. About $18,000. Work will be readvertised. Noted Nov. 11.

Transmission System—Salem, O.—Salem Lighting Co. having plans prepared for 12 mi. transmission system. Day & Zimmerman, 611 Chestnut St., Phila., Pa., engrs.

Road Machinery—Durand, Wis.—Pepin Co. appropriated $2,000 to purchase road machinery for 1921. G. A. Goss, comr.

Tractor and Truck—Florence, Wis.—Florence Co. plans to purchase tractor and large truck. O. F. Soderberg, comr.

Rock Crushing Outfit — Manitowoc, Wis.—City plans to purchase rock crushing outfit and street flusher. A. Zander, clk.

Road Machinery—Monroe, Wis.—Green Co. appropriated $35,000 to purchase road machinery. C. J. Smith, comr.

Paving Outfit—Racine, Wis.—Racine Co. appropriated $25,000 to purchase complete concrete paving outfit. W. O. Thomas, Court House, comr.

Equipment for Gravel Pits—Sheboygan, Wis.—Sheboygan Co. appropriated $50,000 to purchase equipment for gravel pits. G. W. Ubbelohde, comr.

Compus Improvements—Sioux Falls, S. D.—Sioux Falls College, South Walts St., having plans prepared improving campus, locating walks, drives, athletic fields, etc. About $15,000. C. H. Ramsdell, 46 Barton Ave., S. E., Minneapolis, Minn., engrs.

Grain Elevator — Allenton, Mo. — G. R. Skinner, agt. St. Louis Co. Farm Bureau, (Clayton), opens bids about Jan. 15, building concrete grain elevator, 5 bin capacity. About $50,000.

Grain Elevator—Black Jack, Mo.—G. R. Skinner, agt. St. Louis Co. Farm Bureau, (Clayton), opens bids about Jan. 15, building concrete grain elevator, 5 bin capacity. About $50,000.

Grain Elevator—Bridgeton, Mo.—G. R. Skinner, agt. St. Louis Co. Farm Bureau, (Clayton), opens bids about Jan. 15, building concrete grain elevator, 5 bin capacity. About $50,000.

Grain Elevator—Chesterfield, Mo.—G. R. Skinner, agt. St. Louis Co. Farm Bureau, (Clayton), opens bids about Jan. 15, building concrete grain elevator, 5 bin capacity. About $50,000.

Grain Elevator—Valley Park, Mo.—G. R. Skinner, agt. St. Louis Co. Farm Bureau, (Clayton), opens bids about Jan. 15, building concrete grain elevator, 5 bin capacity. About $50,000.

Dam, etc.—Wellington, Col.—Wellington Reservoir Co., Brighton, rejected bids raising dam and building 4 ditches, etc. Work will be readvertised. Noted Nov. 25.

Ornamental Casings—Salt Lake City, Utah—City soon receives bids furnishing 56 c. i. ornamental casings for existing poles, 21 ft. high, each pole to have 3 lights, for Lighting Dist. 6, cost $43,230; 14 c. i. ornamental poles carrying trolley wires and 3 arc lights, for Lighting Dist. 8, $79,000; 42 c. i. ornamental casings for present poles, 21 ft. high, carrying trolley wires and 3 lights, for Lighting Dist. 7, $32,420. S. Q. Cannon, C. & C. Bldg., engr.

Tunnel — Los Angeles, Cal. — Bd. Pub. Wks. having plans prepared by A. C. Hansen, city engr., for pedestrian tunnel, directly under present 3rd St. tunnel. Work involves excavation of subway, cost, $100,000; concrete construction $90,000; white tile lining, $116,000; ventilating plant, $7,000; total cost, $314,000.

Tanks—College Bridge, N. B.—Acadia Oil & Shale Co., Ltd., plans to erect tanks here. About $30,000.

Electric Locomotive, Car Barns, etc.—London, Ont.—London Ry. Comn. plans to purchase electric locomotive, stem shovels and rails for year of 1921, also erect car barn, freight shed, coal slip ferry and overhead crossings. About $275,000. H. A. Brazier, city engr.

Lighting System — London, Ont.— Pub. Utilities Comn. plans to expend $125,000 on extensions and additions to electric light distribution system. Work includes poles, wire, tunnels, cables, etc. About $125,000. E. V. Buchanan, Hydro Bldg., engr.

Road Machinery — Ottawa, Ont. — Bd. Control plans to purchase road machinery. About $10,000. A. F. Macallum, city engr.

Gas Mains—St. Thomas, Ont.—City receives bids about Jan. 15, extending gas mains and purchasing new coal unloader. About $50,000. W. B. Doherty, City Hall, engr.

BIDS DESIRED

Fan, Motor, Heaters, etc.—Dannemora, N. Y.—Until Jan. 5, by J. R. Ross, medical supt., Dannemora State Hospital, for fan, motor, heaters, etc., for northwest wing, Ward Bldg. "D"; advertised in this issue.

Gasoline, Coal and Retaining Wall—New York, N. Y.—Until Dec. 22, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., Crotona Park, Tremont and 3rd Aves., (1) furnishing and delivering 6,000 gal motor gasoline, (2) white ash anthracite coal, (3) rebuilding retaining wall in connection with regulating, grading, setting curbstones, flagging sidewalks laying crosswalks, building approaches and erecting fences where necessary in Adams St. from Morris Park Ave. to New York, New Haven and Hartford R.R.

Wood Paving Blocks—New York, N. Y.—Until Dec. 23, by Bd. Purch., Room 526, Municipal Bldg., furnishing and delivering wood paving blocks to Dept, Plant & Structures.

Hot Water Mains—Randalls Island (New York, P. O.), N. Y.— Until Dec. 24, by Dept. Pub. Welfare, Municipal Bldg., New York City, furnishing, delivering and installing new hot water mains and other appurtenances at New York City Children's Hospital, here. B. S. Coler, comr.

Pavilions—Randalls Island (New York, P. O.), N. Y.—Until Dec. 21, by Dept. Pub. Welfare, Municipal Bldg, New York City, furnishing labor and material for alterations and repairs to St Giles and Dix Pavilions, here. B. S. Coler, comr.

Pavilions—Randalls Island (New York, P. O.), N. Y.—Until Dec. 20, by Comr. Pub. Welfare, Municipal Bldg., New York City, altering Tredgold and Nightingale Pavilions, here. Former bids rejected. Noted Oct. 28.

Fender Rack and Ice Breakers—Perth Amboy, N. J.—Until Jan. 5, by State Highway Comn., Trenton, for fender rack and ice breakers at Old Amboy Bridge, on State Highway Route 4, from Perth Amboy to South Amboy, location in municipal of Perth Amboy and South Amboy, Middlesex Co. A. L. Grover, ch. clk.; advertised in this issue.

Grease—Wash., D. C.—Until Dec. 28, Dist. Comrs., 509 Dist. Bldg., for purchase of grease. J. T. Hendrick, comr.; advertised in this issue.

Engine and Pump — Okeechobee, Fla. Until Jan. 18, by W. W. Dunnicliff, clk., for one engine and pump complete advertised in this issue.

Bricks—Tampa, Fla.—City receiving bids furnishing 200,000 vitr. bricks. About $11,000. R. D. Martin, city engr.

Graders, etc.—Lancaster, Wis.—Until Dec. 21, by H. Mink, highway comr. Grant Co., furnishing graders, drags and scrapers. Noted Nov. 25, under "Road Machinery."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Foundation — Brockton, Mass.** — Baker Realty Co., Belmont Ave., let contract building foundation for 1 story, 120 x 240 ft., mill construction plant, on North Montello St., to Powers Bros., 163 North Montello St. About $15,000.

★**Refined Asphalt, Binder Stone, etc.—Brooklyn, N. Y.**—E. Riegelmann, boro pres., let contract furnishing and delivering 100,000 gal. refined asphalt, to Warner-Quinlan Co., 79 Wall St., New York City, $9,730; 1,700 cu.yd. binder stone, to Calvin-Thompskin Co., $4,658; 1000, cu.yd. gravel, to Washington & Bulkley, $3,350. Noted Dec. 9.

Electric Equipment—New York, N. Y.—Bd. Educ., 500 Park Ave., received bids Dec. 7, installing electric equipment in P. S. 62, from T. F. Jackson, Inc., 99 John St., $45,857; Jandous Electric Equipment Co., 109 West 31st St., $46,138; Crocker-Wheeler Co., 30 Church St., $47,000.

★**Enclosures — New York, N. Y.** — Pub. Serv. Comn., 49 Lafayette St., let contract building inspection shed enclosures in 180th St. Yard, Route 18, to S. S. Jones, 473 West 158th St., $358,565. Noted Dec. 2.

Equipment—New York, N. Y.—M. Hulbert, comm. docks, Pier "A", ft. Battery Pl., North River, received bids Dec. 9, furnishing and installing freight handling equipment on pier at foot of East 5th St. East River, (a), cargo beams and fittings, (b) electric work, (c) winches, from Vulcan Rail Constr. Co., (a) $13,450; Jobson-Gifford Co., 30 East 42nd St. (a) $15,300; Associated Contg. Co., (a) $13,480; T. F. Jackson, Inc., 99 John St., (b) $2,674; Jandous Electric Equipment Co., 109 West 31st St., (b) $2,770; Lenher Eng. Co., 95 Liberty St., (c) $14,212; R. E. Brooks Co., (c) $14,300; Natl. Hoist Eng. Co., (c) $15,300. All bids on (c) informal. Noted Dec. 2.

Ferryboat — New York, N. Y. — G. A. Whalen, comr. Plant & Structures, Municipal Bldg., received bids Dec. 9, building screw ferryboat, from U. S. Steamship Corp., 50 Broad St., $789,500; S. I. Shipbuilders, $795,300. Noted Dec. 2.

★**Gasoline, Paving Grits, etc.—New York, N. Y.** — H. H. Curran, pres. Manhattan Boro., let contract furnishing and delivering 8,000 gal. gasoline and 100,000 gal. refined asphalt, to Standard Oil Co., 26 Bway., $2,480 and $10,220 respectively; 400 cu.yd. paving grits, to G. Eaton, 231 Pearl St., Brooklyn, $1,600; 2,400 cu.yd. binder stone, to New York Trap Rock Co., 101 Park Ave., $6,000; 30,000 granite paving blocks, to J. Meehan & Son, 74 Cort St., $4,125; 5 motor trucks, to Herman Motor Truck Corp., $13,725. Noted Nov. 25.

★**Foundation, etc.—Detroit, Mich.**—Fire Comn., Larned St., let contract building rein.-con. foundation for high pressure pumping station, to Bryant & Detwiller Co., 2336 Dime Bank Bldg., $83,505. Noted Dec. 9.

★**Wharf — Detroit, Mich.** — City Fire Comn., Larned St., and Pub. Wks. let contract building 335 ft. rein.-con. top wharf, to A. J. Dupuis & Co., 1022 Ford Bldg., $160,889. Noted Dec. 9.

★**Tunnel and Fabricating Machinery, etc.—Wellington, Col.**—Wellington Reservoir Co., Brighton, let contract building outlet tunnel, to N. I. Jacobsen, 429 Maxwell St., Boulder, $35,000; furnishing fabricating machinery, valves, operating mechanisms, etc., to Vulcan Iron Wks., 1400 West Colfax Ave., Denver, $8,000. Noted Nov. 25.

★**Foundation and Vault—Los Angeles, Cal.**—Security Trust and Savings Bank, 502 South Spring St., let contract constructing 94 x 104 ft. rein.-con. foundation and vault, to E. C. Erglish, Citizens Bank Bldg., $42,768.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS.

Bids Close		See Eng. News-Record
Dec. 28	Viroqua, Wis.	Dec. 16
Jan. 10	Hartford, Conn.	Dec. 2
Jan. 10	Dayton, O.	Dec. 23

SEWERS

Dec. 28	Newark, N. J.	Dec. 23
Jan. 5	Lima, O.	Dec. 2
Jan. 5	Mansfield, O. Adv. Dec. 16 and 23.	Dec. 16
Jan. 11	North Branch, Minn	Dec. 9

BRIDGES

Dec. 28	Wayne, Neb.	Dec. 9
Dec. 28	Wash., D. C.	Dec. 23
Dec. 29	Michigan	Dec. 23
Dec. 30	North Carolina	Dec. 16
Jan. 1	Jena, La.	Dec. 23
Jan. 6	Miami, Fla. Adv. Dec. 2 to 23.	Dec. 2
Jan. 7	Jacksonville, Fla.	Dec. 2
Jan. 10	Ellsworth, Kan.	Dec. 23
Jan. 11	Burlington, Ont.	Dec. 23
Jan. 11	Hamilton, Ont.	Dec. 16
Jan. 17	Burlington, Ia.	Dec. 16
Jan. 28	Missouri	Dec. 23
Feb. 7	Bainbridge, Ga	Nov. 25
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Dec. 27	St. George, S. I., N. Y.	Dec. 23
Dec. 28	Brooklyn, N. Y.	Dec. 23
Dec. 28	San Diego, Cal.	Dec. 23
Dec. 28	Santa Ana, Cal.	Dec. 23
Dec. 29	Leavenworth, Kan.	Dec. 9
Dec. 29	Indiana	Dec. 16
Dec. 30	New York, N. Y.	Dec. 23
Dec. 30	Indiana	Dec. 23
Dec. 30	North Carolina	Dec. 16
Dec. 30	Omaha, Neb.	Dec. 23
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 3	La Junta, Col.	Dec. 9
Jan. 3	Indiana	Dec. 16
Jan. 3	St. Paul, Minn.	Dec. 23
Jan. 3	Indiana	Dec. 23
Jan. 3	Louisiana	Dec. 23
Jan. 3	Tyler, Tex.	Dec. 23
Jan. 4	Michigan	Dec. 23
Jan. 4	Indiana	Dec. 23
Jan. 5	Indiana	Dec. 23
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 5	Austin, Minn.	Dec. 16
Jan. 6	Missouri	Dec. 9
Jan. 6	Concordia, Kan.	Dec. 16
Jan. 6	San Antonio, Tex.	Dec. 23
Jan. 6	Michigan	Dec. 23
Jan. 7	Michigan	Dec. 23
Jan. 7	Hutchinson, Kan.	Dec. 16
Jan. 7	Concordia, Kan.	Dec. 23
Jan. 10	Ontario	Dec. 23
Jan. 10	Stockton, Kan.	Nov. 18
Jan. 11	Emporia, Kan.	Dec. 16
Jan. 11	Rock Hill, S. C. Adv. Dec. 16 and 23.	Dec. 23
Jan. 12	Florida	Dec. 23
Jan. 15	Nevada	Dec. 9
Jan. 21	Missouri	Dec. 23
Jan. 27	Missouri	Dec. 9
Jan. 28	Missouri	Dec. 23
Feb. 1	Pineville, W. Va.	Dec. 16
Mar. 1	Ontario	Dec. 2
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Dec. 28	New York, N. Y.	Dec. 16
Dec. 29	Somerville, Tenn.	Dec. 16
Dec. 29	New York, N. Y.	Dec. 23
Dec. 31	New York, N. Y.	Dec. 23
Jan. 5	Rockwell City, Ia.	Dec. 23
Jan. 7	Osage, Ia.	Dec. 23

INDUSTRIAL WORKS

Mar. 1	La Salle, Ill.	Dec. 23

BUILDINGS

Dec. 27	Boonton, N. J.	Dec. 23
Dec. 28	Wilson, Pa.	Dec. 23
Dec. 30	Pocahontas, Ia.	Dec. 9
Dec. 31	Eloise, Mich.	Dec. 16
Dec. 31	Chicago, Ill.	Dec. 23
Jan. 1	Marietta, O.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 18
Jan. 1	Little Rock, Ark.	Nov. 25
Jan. 1	Chicago, Ill.	Nov. 25
Jan. 1	Springfield, Mo.	Dec. 2
Jan. 1	Springfield, Mo.	Dec. 9
Jan. 2	Duluth, Minn.	Oct. 21
Jan. 2	Duluth, Minn.	Nov. 25
Jan. 2	Duluth, Minn.	Oct. 28
Jan. 2	Cortland, N. Y.	Oct. 21
Jan. 2	Hibbing, Minn.	Nov. 4
Jan. 2	Aitkin, Minn.	Nov. 11
Jan. 2	Webster, Wis.	Nov. 11
Jan. 2	Jamestown, N. D.	Dec. 2
Jan. 2	Ft. Collins, Col.	Dec. 9
Jan. 2	Aitkin, Minn.	Dec. 9
Jan. 3	Ft. Meyers, Fla.	Dec. 9
Jan. 3	Pontiac, Mich.	Dec. 9
Jan. 3	Bristol, Va.	Dec. 23
Jan. 4	Greeley, Col.	Nov. 25
Jan. 4	Emporia, Kan.	Dec. 2
Jan. 4	Union Grove, Wis.	Dec. 2
Jan. 10	Cleveland, O.	Dec. 23
Jan. 15	Fergus Falls, Minn.	Dec. 9
Jan. 15	Orange, Conn.	Dec. 23
Jan. 15	Evansville, Ind.	Dec. 23
Jan. 15	Iron Belt, Wis.	Dec. 9
Jan. 15	Prince Frederick, Md.	Dec. 9
Jan. 15	St. Louis, Mo.	Dec. 9
Jan. 17	Spooner, Wis.	Dec. 16
Jan. 19	Buffalo, N. Y. Adv. Dec. 2 to 23.	Dec. 2
Jan. 19	Buffalo, N. Y.	Dec. 9
Jan. 20	Lubbock, Tex.	Dec. 16
Jan. 28	Gilmanton, Wis.	Dec. 23
Feb. 15	El Paso, Tex.	Dec. 2
Mar. 1	Duluth, Minn.	Dec. 2
Mar. 15	Pittsburg, Cal.	Dec. 23

FEDERAL GOVERNMENT WORK

Dec. 27	Mailing Vestibule, etc.—Charlotte, N. C.	Dec. 9
Dec. 27	Electric Elevator—Charlotte, N. C.	Dec. 9
Dec. 27	Mailing Vestibule, etc. — Kokomo, Ind.	Dec. 9
Dec. 27	Mezzanine Floor—Decatur, Ill.	Dec. 9
Dec. 27	Magnesite Floors—Cincinnati, O.	Dec. 16
Dec. 28	Boiler and Storage House—Woods Hole, Mass.	Dec. 9
Dec. 28	Mailing Vestibule—Corby, Pa.	Dec. 9
Dec. 28	Mezzanine Floor—Charleston, W. Va.	Dec. 9
Dec. 29	Mezzanine Floor—Beloit, Wis.	Dec. 9
Dec. 29	Torpedo Storage Racks—, Spec. 4111 — Alexandria, Va.	Dec. 23
Dec. 29	Improving Boiler Plant — Spec. 4252 — Charleston, S. C.	Dec. 9
Dec. 29	Steam Heating System—Norfolk, Va. Adv. Dec. 16 and 23.	Dec. 16
Dec. 29	Fire Protection System—Bar Harbor, Me.	Dec. 16
Dec. 29	Sub-station for Switchboard —South Charleston, W. Va.	Dec. 16
Dec. 29	Raising Floors—Brooklyn, N. Y.	Dec. 16
Dec. 30	Buildings—Ft. Leavenworth Kan. Adv. Dec. 16 and 23.	Dec. 23
Dec. 31	Steel Dump Scows—Phila., Pa. Adv. Dec. 2 to 23.	Dec. 9
Jan. 3	Hot Water Piping—Phila., Pa.	Dec. 9
Jan. 5	Concrete Roads, etc.—Spec. 4236—Wash., D. C.	Dec. 16
Jan. 5	Roofing—Spec. 4347—New York, N. Y.	Dec. 23
Jan. 5	Paving, Ducts, etc.—Spec. 4236—Wash., D. C.	Dec. 23
Jan. 5	Buildings and Improvement Spec. 4334—Quantico, Va.	Dec. 23
Jan. 5	Gallery—Knoxville, Pa.	Dec. 23
Jan. 6	Laundry—Stapleton, S. I., N. Y.	Dec. 23
Jan. 7	Repairing Roof — Wash., D. C.	Dec. 23
Jan. 7	Dredging—Norfolk, Va.	Dec. 9
Jan. 7	Fire Service Mains —New Orleans, La.	Dec. 16
Jan. 10	Remodeling Post Office Screen—Alliance, Neb. Adv. Dec. 23.	Dec. 23
Jan. 10	Dredging—New Orleans, La. Adv. Dec. 9 to 23.	Dec. 9
Jan. 12	Electric Traveling Bridge Crane—Spec. 4326—Puget Sound, Wash.	Dec. 16
Jan. 17	Dredging—New York, N. Y. Adv. Dec. 16 and 23.	Dec. 16
Mar. 15	Post Office—Joplin, Mo.	Dec. 9

MISCELLANEOUS

Dec. 28	Grease—Washington, D. C.	Dec. 16
Dec. 28	Wharfs and Pier — Phila., Pa.	Dec. 9
Dec. 28	Coal Conveyor—New York, N. Y.	Dec. 23
Dec. 28	Lighting System — Jersey System—Jersey City, N. J.	Dec. 23
Dec. 29	Ferryboat — New York, N. Y.	Dec. 23

Bids Close		See Eng. News-Record
Dec. 30	Coal an Ash Equipment — Milwaukee, Wis.	Dec. 23
Jan. 4	Wall—Seneca Falls, N. Y. Adv. Dec. 9 to 23.	Dec. 9
Jan. 5	Fan, Motor, Heaters, etc.— Dannemora, N. Y. Adv. Dec. 16 and 23	Dec. 16
Jan. 5	Fender Rack and Ice Breakers — Perth Amboy, N. J. Adv. Dec. 16 and 23.	Dec. 16
Jan. 7	Wharf—Summerville, N. S.	Dec. 23
Jan. 10	Filter Sand — Hartford, Conn.	Dec. 2
Jan. 11	Motors and Pumps—Sacramento, Cal.	Dec. 2
Jan. 18	Engine and Pump—Okeechobee, Fla. Adv. Dec. 16 and 23.	Dec. 16
Jan. 26	Wall—Chesterville, Ont.	Nov. 25

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Mt. Vernon—City having plans prepared for transmission main from reservoir at Hillview to here. About $300,000. Hill & Ferguson, 112 East 19th St., New York City, engr.

N. C., Canton—See "Streets and Roads."

N. C., Newton—Town plans to sell $14,000 bonds Jan. 4 to build waterworks system. D. B. Gaither, clk.

Ky., Ashland — City having plans prepared by Alvord & Burdick, archts., 8 South Dearborn St., Chicago, and receives bids in spring, for installing additional water supply. Bonds for $250,000 voted for project. Noted March 18.

O., Cleveland—See "Sewers."

O., Rock River — Village plans to lay 8,000 ft. 4 in. c.i. water mains in West Lake Rd. E. H. Arnold, Rocky River, engr.

Minn., Cambridge — E. Lindahl, village clk., will probably receive bids in spring for extending water piping about 4,500 ft. About $21,000. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs.

Minn., Wheaton — City plans to install water pressure system. About $20,000.

Cal., Bakersfield—City election Feb. 8 to vote on $250,000 bonds to build water system for east side. J. A. Himman, mayor.

Cal., Biggs—City having plans prepared building sanitary sewers, disposal plant and filter beds. About $60,000. C. E. Sloan, Nevada Bank Bldg., San Francisco, engr.

BIDS DESIRED

O., Dayton—Until Jan. 10, by city, building 10,000,000 gal. covered concrete reservoir. About $225,000. F. O. Eichelberger, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Pa., Phila.—Bureau Water Supply, City Hall, let contracts furnishing and installing piping system in Queens Lane pumping system, to Wood & Walcott, Inc., 832 North 13d St., $100,000; laying water pipe in recently improved streets, to A. A. Pastore, 5903 Woodland St., $50,000.

★Mich., Saginaw—City let contract constructing steel pipe lines and river crossing at Holland Ave., to T. A. Gillespie Co., 50 Church St., New York City, $147,290.

★Ia., Newton—City let contract building reservoir, pump house, 2 motor driven centrifugal pumps, etc., to A. Phelps Co., Knoxville, $44,825. Noted Dec. 16.

★Wash., Seattle—City let contract building 2 earth dams, at Swan Lake, (as part of proposed extensions to waterworks system), to Coluccio & Erickson, Ry. Exch. Bldg., $54,954. Noted Dec. 16.

Sewers

PROPOSED WORK

Pa., Easton—City plans to build sewerage system and Sewage disposal plant. About $3,500,000. Hill & Ferguson, 112 East 19th St., New York City, engrs.

S. C., Greenwood — See "Streets and Roads."

Fla., Key West—City having preliminary surveys, plans, specifications and estimates made, and receives bids in about 4 months for complete sewerage system. About $100,000. Ulen Contr. Corp., 120 Bway, New York City, engrs.

Tenn., Nashville — City plans to extend West End and Belmont trunk sewers. Cost $36,500. D. W. Southgate, city engr. Noted Dec. 2.

O., Cleveland—City receives bids in summer building sewer in East 105th St. between Adams and St. Clair Aves. About $149,566. R. Hoffman, 618 City Hall, engr.

O., Cleveland—Roselle Realty Guarantee Co., c/o Wight-O'Rourke Co., engrs., Rose Bldg., plans to build sewers and watermains in Garfield Park allotment. About $60,000.

O., Lima — City having plans prepared building sewage disposal plant. About $1,000,000. Fuller & McClintock, 170 Bway., New York City, engrs.

Minn., Cambridge — E. Lindhal, village clk., will probably receive bids in spring for 20,000 ft. addition to sewerage system. About $38,000. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs.

Neb., Lincoln — City having plans prepared for building 32,200 ft. 10-15 in. sewers, in College View section. About $40,000. W. S. Scott, Lincoln, engr.

N. D., Carrington—City receives bids in spring building sewage disposal plant. About $15,000. C. C. Carnahan, clk.

Tex., Breckenridge—City voted $250,000 bonds to build sewerage system. Noted Nov. 18.

Cal., Visalia — City voted $55,000 bonds for septic tank, $45,000 for sewer extensions and $10,000 for small concrete bridge and culverts. L. H. Gadsby, city engr.

BIDS DESIRED

N. J., Newark—Until Dec. 28, by Director of Streets & Pub. Impvts., building sewer in Carlsbad Terrace and Cameron Rd., involving 550 ft. 8 in. sewer pipe and 570 ft. 6 in. house connection, etc. T. L. Raymond, City Hall, engr.

D. C., Wash.—Repairing Roof—Until Jan. 7, by Treas. Dept., repairing roof in Bureau Engraving and Printing. J. A. Wetmore, superv. archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Pa., Phila.—City let contract building brick sewer in 59th St. from Springfield to Beaumont Sts., to J. J. McHugh, 1430 South Penn Sq. About $20,000.

O., Bedford—Village received bids building sewer in Bway., involving 3,640 ft. 12 in. vitr. pipe, from Phillips & Bixel, Blackstone Bldg., Cleveland, $25,036; Curro Bros., 12206 Mayfield Rd., Cleveland, $25,340.

★Mich., Detroit—City let contract to Detroit Drainage Constr. Co., Penobscot Bldg., constructing Lateral Sewer 3264, between Fairview, Engel, Marsh and Edlie Aves., $14,000, 3390 between Mitchell, McDougal, Carpenter and Davison Aves., $11,920; 3395 between Jos. Campau, McKay, Davison Aves. and Six Mile Rd. $42,358, 3396 between Lawton, Linwood, Beuna Vista, and Tyler Aves., $10,240; to R. D. Baker, 1454 Penobscot Bldg., 3389 between Linwood, Lasalle and Tuxedo Aves., $4,998.

★Ia., Bellevue—City let contract building 5 mi. sewerage system, to Hammen-Kruse Co., Spencer, 67,305. Noted Nov. 11.

Minn., St. Paul—City received bids building outfall sewerage system in Portland Ave. from Mississippi River, 990 ft. east, from DeGraff-Wolff, 1000 Guardian Life Bldg., $15,560; Feyen Constr. Co., 277 Burgess St., $18,400.

Bridges

PROPOSED WORK

Mass., Boston—City plans to build concrete and steel arch bridge between here and Watertown. About $175,000. A. J. Peters, city engr.

Mass., Boston—City plans to alter and remodel 2 bridges over Charles River. About $550,000. A. J. Peters, city engr.

Mass., Boston—City having sketches made for concrete and steel arched bridge between here and Cambridge, to replace Cottage Farm Bridge. About $750,000. Project will mature in spring. A. J. Peters, city engr.

Md., Baltimore — City plans to build bridges over Pennsylvania R.R. on Calvert, Chase and Biddle Sts. About $350,000. G. Perrin, City Hall, engr.

North Carolina — State Highway Dept., Raleigh, having plans prepared for 6 small rein.-con. bridges, 16-120 ft. long and rein.-con. culverts, on Federal Aid Project 101 B, Randolph Co. About $35,000. S. Fallis, state highway engr.

Ga., Columbus—City plans to build concrete bridge about ½ mile long, over Chattahoochee River. About $200,000.

Georgia — State Highway Dept., Atlanta, plans to build 528 ft. rein.-con. trestle with earth approaches. About $60,000. R. T. Goodwin, Jr., Athens, engr.

Ky., Lexington—City plans to build new steel and concrete viaduct to replace present Ayers Alley Viaduct. W. H. McCorkle, comr. pub. wks.

Missouri—State Highway Dept., Salem, rejected bids received Nov. 19, building rein.-con. superstructures on various stations, cost $13,355; rein.-con. slab superstructure on Sta. 638 plus 18, $2,952; rein.-con. slab superstructures on Sta. 443 plus 75, $3,242. All above on State Aid Project S. 20.11, Dent Co. Noted Dec. 9.

Cal., Los Angeles—City having plans prepared for steel drawbridge over Long Beach Channel. Cost between $300,000 and $400,000. R. W. Stewart, harbor engr.

Cal., Santa Barbara—Santa Barbara Co. plans to build trestle bridge over Santa Maria River, at Sucy Crossing. About $30,000.

BIDS DESIRED

Michigan—Until Dec. 29, by State Highway Dept., Lansing, building Trunk Line Bridge 92, in St. Clair Co., 55 ft. concrete girder supported by rectangular caissons, involving 417.2 cu.yd. concrete.

Kan., Ellsworth—Until Jan. 10, by Clerk Ellsworth Co., building 30 ft. rein.-con. through girder bridge, 20 ft. wide, in Mulberry Twp. and 35 ft. bridge in Langley Twp., involving 419 cu.yd. rein.-con. and 22,856 lb. steel. B. Story, Ellsworth, engr.

Missouri—Until Jan. 28, by State Highway Dept., Caruthersville, building I-beam superstructure over drainage ditch, on Sta. 260 plus 40, involving 84.5 cu.yd. Class C concrete, 470 lb. reinforcing and 11,700 lb. fabricated structural steel, etc., cost $5,596; I-beam superstructure over drainage ditch, on Sta. 255 plus 58, 132.2 cu.yd. Class C concrete, 500 lb. reinforcing and 17,200 lb. fabricated structural steel, etc., $8,177; I-beam superstructure, over drainage ditch, on Sta. 0 plus 00, 90.4 cu.yd. Class C concrete, 500 lb. reinforcing and 13,700 lb. fabricated structural steel, etc., $6,090. All above on Federal Aid Project 35, Pemiscot Co.

Cal., San Diego—See "Streets and Roads."

Ont., Burlington—Until Jan. 11, by Dept. Pub. Wks., Ottawa, building 202 ft. superstructure of single leaf Strauss trunnion bascule bridge, 34 ft. wide, over Burlington Channel, here. About $125,000. E. Lafleur, c/o Dept. Pub. Wks., engr. Noted Aug. 12.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Minn., Grand Rapids — Itasca Co. let contracts building Bridges 3358, 3359, 3361, 3362 and 3363, concrete, on State Rd. 9, and Bridge 3303, over Prairie River, State Rd. 9, to Iowa Bridge Co., 317 McKnight Bldg., Minneapolis, cost $50,000 and $30,000 respectively; Bridge 3445 over Lake Pokagama, State Rd. 9, to E. W. Coons Co., 230 Center St., Hibbing, $42,000. Noted Nov. 18 and Dec. 2.

★Kan., Chapman — Dickinson Co. (Abilene) let contract building 150 ft. Marsh Rainbow arch bridge, 18 ft. wide, here, to Koss Constr. Co., 2818 5th St., Des Moines, Ia., $44,017. Noted Dec. 16.

★Kan., Columbus—Cherokee Co. let contract building 2 rein.-con. bridges on Oswego Rd., to Koch & Kost, Joplin, Mo., $17,598. Noted Nov. 11.

★Tex., Laredo—Laredo Bridge Co. let contract building 810 ft. rein.-con. arch bridge, 39 ft. wide, over Rio Grande River, to J. De Puy, Bedell Bldg., San Antonio, 287,390. Noted Nov. 18.

Streets and Roads

PROPOSED WORK

Mass., Boston—City plans to build new roadway and entrances to Franklin Park, at Forest Hills and Morton Sts. About $40,000. J. J. Murphy, 33 Beacon St., engr.

Mass., Boston—City plans to lay concrete walks in and around Boston Common, Boylston and Tremont Sts. About $30,000. J. J. Murphy, 33 Beacon St., archt.

Mass., Dorchester (Boston P. O.)—City plans to build Columbia Rd. between Ed Everett Sq. and Carsen St., bituminous macadam. About $30,000. J. J. Murphy, 33 Beacon St., Boston, engr.

Mass., Jamaica Plain (Boston P. O.)—City plans to build Jamaica Way from Willow Pond Rd. to Moraine St., involving 10,000 sq.yd. bituminous macadam. About $30,000. J. J. Murphy, 33 Beacon St., Boston, engr.

North Carolina — State Highway Comn., Raleigh, having plans prepared clearing, grubbing, grading, draining, top soil'ng, laying 12-24 in. terra cotta pipe and building one 80 ft. and two 30 ft. rein.-con. bridges on 11 mi. road from Troy, via Briscoe, to Montgomery-Moore Co. line, 18 ft. wide. Federal Aid Project 80 B. Montgomery Co. About $85,000. W. S. Fallis, state highway engr.

N. C., Canton—City voted $65,000 bonds to pave sidewalks, streets and extend waterworks system.

N. C., Greensboro—Guilford Co. voted $2,000,000 bonds to build hard surface roads. Noted Nov. 18.

N. C., Louisburg—Harris Twp. plans to sell $50,000 bonds, Jan. 5, to build roads. F. W. Justice chn. Harris Twp. Rd. Comn.

N. C., Washington—City opens bids in January paving 30 blocks.

S. C., Greenwood — City sold $200,000 bonds to pave streets and extend sewerage system.

Fla., Barton — Polk Co. voted $200,000 bonds to build 23 mi. road from Lakeland to Lake Co. line, 16 ft. wide, sheet asphalt with rock base preferred. Brick and block asphalt will also be considered.

Fla., Gainsville—City voted $125,000 bonds to pave about 10 mi. various streets, 20-30 ft. wide brick, asphalt brick or asphalt. Engineer not selected.

Fla., Key West—Monroe Co. voted $400,000 bonds to pave and build bridges on 11 mi. Overseas Highway, 16 ft. wide, vitr. brick or asphalt.

Fla., Tavares—Lake Co. plans election to vote on $125,000 bond issue to build 17 mi. concrete road from Altoona to Astor, 16 ft. wide. M. P. Phillips, Umatilla, engr.

O., Cleveland—City receives bids in summer grading, draining, curbing and paving Searsdale Ave. between Broadview Rd. to point 1,050 ft. westward, brick on concrete base, cost $28,123; Diana Ave. between East 136th and East 140th Sts., brick on concrete base, $21,628; Florian Ave. between West 117th St. and Parkhurst Drive, brick or bituminous concrete on concrete base, $69,224. R. Hofman, 618 City Hall, engr.

O., Cleveland—City receives bids in summer grading, draining, curbing and paving West 115th St. between Madison and Locust Aves., brick or bituminous concrete on concrete base. About $18,459. R. Hoffman, 618 City Hall, engr.

Wis., Ashland—Ashland Co. plans to improve various roads. About $67,033. W. E. Dillon, comr.

Wis., Balsam Lake—Polk Co. plans to grade and gravel surface various roads. About $21,533. C. Nystrom, comr.

Wis., Barron—Barron Co. plans to improve various roads. About $25,245. E. Gleason, comr.

Wis., Black River Falls—Jackson Co. plans to grade, shale surface and drain various roads. About $45,621. W. Tibbitts, comr.

Wis., Eau Claire—Eau Claire Co. plans to grade, gravel surface and drain various roads. About $36,675. G. Osborne, comr.

Wis., Elkhorn—Walworth Co. plans to concrete surface Whitewater-Janesville Rd., town of Whitewater, cost $16,763; improve Janesville-Milwaukee Rd., Richmond and Sugar Creek, $48,905. H. J. Peters, comr.

Wis., Kenosha — Kenosha Co. plans to build following roads: Sheridan Rd. 15, town of Pleasant Prairie, concrete, cost $1,000; Geneva Rd. 50, Bristol, concrete, $1,575; Milwaukee Rd. 57, Pleasant Prairie, $1,500; Kilbourn Rd. 57, Somers and Paris, concrete, $60,000; Milwaukee Rd. 57, Pleasant Prairie, concrete, $20,000; Geneva Rd. 50, Wheatland, concrete, $20,000; Brighton and Kansasville Rds., Brighton, gravel, $8,018; Silver Lake Rd., Salem, gravel, $7,530; Bassett-Powers Lake Rd., Randall, gravel, $7,528; total cost $123,076. J. Herzog, comr.

Wis., Kewaunee—Kewaunee Co. plans to grade, gravel surface and build bridges on various roads. About $38,835. M. Shaw, Algoma, comr.

Wis., Merrill—Lincoln Co. plans to grade, gravel surface and drain various roads. About $19,093. H. H. Kuehling, comr.

Wis., Sturgeon Bay—Door Co. plans to gravel surface following roads: Green Bay Rd., cost, $5,718; Sister Bay Rd., $1,507; Gasco Rd., $1,500; Town Line Rd., $1,500; Baileys Harbor Rd., $1,500; Clay Banks Rd., $1,500; Herlache Rd., $1,500; Baileys Harbor Rd., town of Gibraltar, $1,500; West Jacksonport Rd., $1,500; Europe Bay Rd., $1,500; Town Line Rd., Nasewaupee, $1,500; Baileys Harbor Rd., Sevastopol, $1,500; Clay Bank Rd., Sturgeon Bay, $1,500; Chandoir Rd., Union, $1,500; Jackson Harbor Rd., Washington, $1,500; Baileys Harbor Rd., village of Ephraim, $750; Baileys Harbor Rd., Village of Sister Bay, $750; total cost, $22,507. J. M. Laurie, comr.

Wis., Viroqua—Vernon Co. plans to grade and gravel surface various roads. About $24,390. A. Ristow, comr.

Wis., Wausau—Marathon Co. plans to grade and gravel surface various roads. About $45,276. J. H. Vogt, comr.

Wis., Wautoma—Waushara Co. plans to gravel surface various roads, also build concrete roads and bridges in village of Wild Rose. About $22,173. F. Grimm, comr.

Wis., West Bend—Washington Co. plans to grade, concrete surface and drain Trunk Highways 15 and 55, in towns of Jackson, Polk, West Bend, Trenton and Hartford, cost $578,624; also improving West Cedar Lake Rd., here, $4,500; West Cedar Lake Rd., Polk, $2,653; gravel surface roads in town of Germantown, $3,577 and in Jackson, $3,577, total cost, $592,930. C. Johnson, Kewauskum, comr.

Minn., Shapokee—Scott Co. plans to build 6 mi. hard surface road between here and Montgomery. About $150,000. D. Childs, Shakopee, engr.

Kan., Lyons—Rice Co. rejected bids received Nov. 16, paving, grading, building bridges and culverts on 5.022 mi. Federal Aid Project 26. S. Ainsworth, Lyons, engr. Noted Oct. 14.

Mont., Billings—Yellowstone Co. plans to grade and build culverts on 4 mi. Rimrock Scenic Rd. About $15,000. F. E. Williams, aud.

Mo., St. Louis—City plans to widen 15,000 ft. Market St. from 7th to Vandeventer Sts., 100 ft. wide; 1,800 ft. Franklin Ave. from 3rd to 7th Sts., 80 ft. wide; 6,000 ft. Easton Ave. from Leffingwell to Prairie Aves., 80 ft. wide. About $620,000. W. W. Horner, City Hall, engr.

Tex., Breckenridge — City voted $300,000 bonds to pave various streets. Noted Nov. 18.

Tex., Burnet—Burnet Co. having plans prepared clearing, grubbing, surfacing and draining 10 mi. State Highway 36-B from Williamson Co. to point 1 mi. north of Brushy Creek, involving 36,000 lin.ft. road grader work, 23,963 cu.yd. borrow, 3,498 cu. yd. solid and 800 cu.yd. loose rock excav., 362.47 cu.yd. Class "A," 148.3 cu.yd. Class "B" and 12.9 cu.yd. Class "C" concrete, etc. About $55,000. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Ariz., Phoenix—Maricopa Co. election Dec. 30, to vote on $4,500,000 bonds to build new highways. Noted Aug. 12.

Cal., Sausalito—City Trustees plan election to vote on $75,000 bonds to build and improve roads.

BIDS DESIRED

N. Y., Brooklyn—Until Dec. 28, by E. Riegelmann, boro pres., regulating and resurfacing Canarsie Lane from Kings Highway to Glenwood Rd., 16 ft. wide, bituminous macadam.

N. Y., New York—Until Dec. 30, by Park Bd. at office of Dept. Parks, 10th floor, Municipal Bldg., furnishing labor and material for paving walk adjacent to bulkhead on river front of Thomas Jefferson Park, Manhattan Borough, asphalt mastic.

N. Y., S. I. St. George—Until Dec. 27, by C. D. Van Name, pres. Richmond Boro, Boro Hall, building and repairing sidewalks on Richmond Ave. from Richmond Terrace to Staten Island Rapid Transit R.R. tracks.

S. C., Rock Hill—Until Jan. 11, by Mayor and City Council for 130,000 sq.yd. asphalt or other pavement, 9,000 curb and gutter, 25,000 sq.yd. sidewalk, 40,000 cu.yd. grading and 2½ mi. storm drains. G. C. White, Durham, N. C., engr.; advertised in this issue.

Florida—Until Jan. 12 by State Highway Comn., Tallahassee, building 9.55 mi. road between Okeechobee City and St. Lucie Co. line, 16 ft. wide, Okeechobee Co., involving vitr. brick, asphalt, bituminous concrete or bituminous macadam pavement, 57,269 cu.yd. earth excav., 89,242 sq.yd. 8 in. Florida stone base, 59 acres clearing and grubbing, 26,000 ft. Class A bridge timber, etc. About $150,000. C. A. Browne, state highway engr.

Louisiana—Until Jan. 3, by State Highway Dept., Room 332, Maison Blanche Bldg., New Orleans, building 5.91 mi. Sect. A1 and 15.19 mi. Sect C, New Orleans-Hammond Highway and 9.24 mi. Sect. B, New Orleans-Mississippi Highway. D. Bute, state highway engr.

Indiana — By Bd. Co. Comrs. building roads in following counties:

Dec. 30, Dubois Co., Jasper, 2.143 mi. macadam roads in Marion Twp. F. J. Seng, aud.

Jan. 3, Clark Co., Jeffersonville, 1.38 mi. W. W. Smith Rd., crushed limestone, Utica Twp.; 10,612 ft. J. E. Long Rd., macadam, Charleston Twp.; 7,165 ft. H. G. Stacy Rd. macadam, Utica Twp. T. L. Stoner, aud.

Jan. 4, Park Co., Rockville, 10,208 ft. M. Teague Rd., gravel, Washington Twp. R. E. Porter, aud.

Montgomery Co., Crawfordsville, 6,600 ft. ft. L. Brookshide et al Rd., gravel, Clark Twp. W. McClelland, aud.

Jan. 5, Shelby Co., Shelbyville, 2,136 ft. M. Burgess Rd., crushed stone, Addison Twp.; 7,800 ft. E. T. Arbuckle Rd., gravel, Union Twp.; 13,680 ft. G. P. Fritts Rd., gravel, Moral Twp. W. W. Leslie, aud.

Michigan—Until Jan. 4, by State Highway Dept. at dist. office, Kalamazoo, grading, draining and surfacing with gravel 4.068 mi. Assessment Dist. Rd. 177, involving 25,595 cu.yd. excav., 38,117 sq.yd. gravel, etc. Noted Dec. 16.

Michigan—Until Jan. 4, by State Highway Dept., at office Bd. Rd. Comrs., Newaygo Co. White Cloud, grading and surfacing with gravel 3.006 mi. State Trunk Line Rd. 24-3, involving 28,221 sq.yd. gravel, etc.

Michigan—Until Jan. 7, by State Highway Dept., at office Bd. Rd. Comrs., Livingston Co. (Howell), grading, draining and surfacing with gravel 5.625 mi. State Trunk Line Rd. 65-3, Sect. B, involving 35,678 cu. yd. excav., 52,691 sq.yd. gravel, etc.

Ia., Sibley—Until Jan. 6, by town, for 80,000 yd. paving. R. D. Stewart, clk. Noted Dec. 2.

Minn., St. Paul—Until Jan. 3 by Ramsey Co., paving 28,315 ft. Kohler Rd. to Goose Lake Crossing (part of St. Paul-Duluth Highway), 24 ft. wide, asphaltic concrete on concrete base. About $250,000. Noted Aug. 19.

Kan., Concordia—Until Jan. 7, by Cloud Co., grading, paving and building culverts on 6½ mi. Midland Trail Rd., 18-36 ft. wide, concrete. Tuttle, Ayers & Woodward, 307 Reliance Bldg., Kansas City, Mo., engrs.

Kan., Concordia—Until Jan. 7, by Cloud Co., grading, paving and building culverts on 2.15 mi. Meriden Highway, 20 ft. wide, concrete, brick or gravel. J. F. Wilson, Kansas City, Mo., engr. Noted Nov. 4.

Neb., Omaha — Until Dec. 30, by F. Dewey, clk. Douglas Co., paving 54,912 sq. yd. Lincoln Highway 120; 66,000 sq.yd. Rd. 100; 62,860 sq.yd. Rd. 52; 38,330 sq. yd. Washington Highway Rd. 26; 21,120 sq.yd. Rd. 41; 21,120 sq.yd. Rd. 38; 13,200 sq.yd. Rd. 24 and 26; 52,800 sq.yd. O. L. D. Highway and 14,520 sq.yd. Rd. 34., vitr. brick, asphalt or bitulithic.

Missouri—Until Jan. 21 by State Highway Dept., Bowling Green, building 2.5 mi. Red Ball Route, northward from Bowling Green, State Aid Project S 20.21, Pike Co., involving 22,362 cu.yd. earth and 2,000 cu. yd. solid rock excav., 2,734.9 cu. yd. borrow,

Streets and Roads (Continued)

100 cu.yd. Class B and 6.6 cu.yd. Class C concrete masonry, 8,317 lb. reinforcement for concrete masonry, etc. About $30,939. Noted Dec. 2.

Missouri—Until Jan. 28, by State Highway Dept., Caruthersville, building 5.93 mi. Kings Highway, Federal Aid Project 35, Pemiscot Co., involving 36,564 cu.yd. earth excav., 1,577 cu.yd. borrow, 22,014 cu.yd. per 100 ft. overhaul, 41,156 sq.yd. gravel pavement, 45.5 cu.yd. Class B and 29.2 cu.yd. Class C concrete masonry, 3,160 lb. reinforcement for concrete masonry, etc. About $74,764.

Tex., San Antonio — Until Jan. 6, by Comrs. Bexar Co., grading, surfacing and draining 5.09 mi. State Highway 27, Bandera Rd., involving 23,890 lin.ft. grader work, 5,829 cu.yd. earth excav., 47,910 sq. yd. bituminous macadam, 3,419 lb. reinforcing steel, 5,860 cu.yd. gravel surfacing, 151.5 cu.yd. 1:2:4 and 10.1 cu.yd. 1:2½:5 concrete. About $60,911. C. E. Hoff, co. engr. Noted Nov. 4.

Tex., Tyler — Until Jan. 3, by Comrs. Smith Co., grading, surfacing and building rein.-con. and steel bridges and culverts on 2.66 mi. State Highway 37, involving 245.75 cu.yd. 1:2:4 concrete, etc. About $43,927. D. K. Caldwell, co. engr. Noted Dec. 2.

Cal., San Diego—Until Dec. 28, by Bd. Supervs. San Diego Co., grading, surfacing and building bridges and culverts on 6.147 mi. Mission Rd.

Cal., Santa Ana—Until Dec. 28, by city, resurfacing 9 mi. Garden Grove Ave., West 5th St., Anaheim and Cypress Rds., 2 in. asphalt. J. L. McBride, city engr.

Ontario—Until Jan. 10, by W. A. McLean, minister of highways, Toronto, for following work on Provincial Highways: (1) macadam roadways, Contr. 280, 2½ mi. from Belleville to Shannonville, Contr. 281, Kingston easterly 7.7 mi., Contr. 282, Brockville westerly 4 mi., Contr. 283, 15 mi. from Jarvis to Dunnville, (2) bituminous concrete roadways, Contr. 284, 5.11 mi. from River Rouge to Pickering, Contr. 285, 2 mi. from Kingston to Catarqui, Contr. 286, Ottawa easterly 4 mi., Contr. 287, Dundas Hill northerly 3 mi., Contr. 288, 3 mi. from Clappisons Corners to Blacks Corners, Contr. 289, 4 mi. from York Co. line to Cooksville, Contr. 290, Guelph southerly 2½ mi., Contr. 291, 3 mi. from Stratford to Sebringville, Contr. 292, 3 mi. Caledonia Rd. from Hamilton south, Contr. 293, Ancaster westerly 4 mi., Contr. 294, 1½ mi. from Niagara Falls to Stamford, (3) concrete pavements, Contr. 295, Guelph southerly 2½ mi., Contr. 296 Sarnia easterly 3 mi., Contr. 297, Cainsville easterly 3 mi., Contr. 298, 2½ mi. from London to Crumlin, Contr. 299, 4½ mi. from London to Lambeth, (4) rock and earth work, Contr. 300, Twp of East Flamboro south of Clappisons Corners, Contr. 301, grading in Aldboro Twp., Contr. 302, Nelson Twp., (5) bituminous penetration roadway, Contr. 303, Yonge St. from Newmarket north 2½ mi., Contr. 304, Queenstown Rd. 8 mi. from Stoney Creek to Jordan.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Rhode Island** — State Rd. Pub. Works, State House, Providence, let contract reconstructing section Danielson Pike for distance of 5 mi., bituminous, Town of Scituate to Lane Constr. Co., 37 Colony St., Meriden, Conn., $175,520.

★**North Carolina**—State Highway Comm., Raleigh, let contract improving 8.73 mi. road from Hornet Creek to city limit of Whitakers, 18 ft. wide, Federal Aid Project 73, Nash Co., to Porter & Boyd, Realty Bldg., Charlotte, $145,375. Noted Dec. 2.

★**N. C., Greensboro** — City let contract paving Hillside Dr., Fairmont, Lakeview and Woodlawn Sts., concrete or other hard surface material, to R. G. Lassiter & Co., 327-33 Monticello St., Arcade Bldg., Norfolk, Va. Cost to exceed $100,000. Noted Nov. 27, 1919.

★**South Carolina**—State Highway Comm., Columbia, let contract building 12.722 mi. Columbia-Savannah Highway with necessary bridges between city limits of Orangeburg and station 1187 near Bamberg Co. line, Orangeburg Co., to J. L. Carroll Co., Anderson, $61,189. Work involves 5.8 acres clearing and grubbing, 62,853 cu.yd. common excav., 30,403 cu.yd. sand clay surfacing, 67,000 lin. ft. mixing and shaping sand clay, 96 cu.yd. Class B concrete in headwalls, 141.7 cu.yd. Class A concrete in culverts, 10,582 lb. steel reinforcement, etc. Noted Nov. 18.

★**Ga., Chatsworth**—Murray Co. let contract paving and building 8 concrete culverts on 6.66 mi. Dalton-Chatsworth Rd., Federal Aid Project 178, involving 18,000 yd. topsoil, to Hagedorn Constr. Co., Commerce. About $75,000.

Florida—State Highway Comm., Tallahassee, received bids building 10 mi. hard surfaced county road from Lake City to Baker Co. line, 16 ft. wide, and 6 culverts, 8-15 ft. spans, involving 92,814 sq.yd. asphalt or bituminous macadam, 104,415 sq. yd. rock base, 104 cu.yd. Class A concrete and 530 lb. steel reinforcing for culverts, from F. W. Long & Co., 434 East Bay St., Jacksonville, $274,170; Akerman Constr. Co., Titusville, $287,985. Noted Nov. 18.

★**Ind., Winamac**—Comrs. Pulaski Co. let contract graveling 15,750 ft. D. Berryman Rd., Harrison Twp., to J. Featherston, Winamac, $15,989. Noted Nov. 25, under "Indiana."

★**Michigan**—State Highway Dept., Lansing, let contract grading and gravel surfacing 7.182 mi. State Trunk Line Rd. 73-1, Sect. B, to Smith, Sparks, Bunidge Co., Crystal Falls, $32,703.

★**Ia., Marshalltown**—Marshall Co. let contract paving about 6 mi. Lincoln Highway, 18 ft. wide, crushed rock, sand and cement, to Wright Constr. Co., 211 Flynn Bldg., Des Moines, $3.17 per yd. for paving and $1.25 per yd. for excav. Noted Dec. 2.

★**Minn., Grand Rapids** — Itasca Co. let contract building 7 mi. Job 2004, State Rd. 9, involving 166,000 cu.yd. excav., 793,000 cu.yd. overhaul, etc., to E. W. Coons Co., 230 Center St., Hibbing. About $150,000. Noted March 18.

★**Kan., Columbus**—Cherokee Co. let contract grading and graveling 13 mi. Oswego Rd., 18 ft. wide, to W. C. Judsch, Sapulpa, Okla., $187,504. Noted Nov. 11.

★**Wyo., Greybull**—Town let contract paving Dist. 1, concrete, to Lloyd Building Co., Casper, $67,374.

★**Tex., Daingerfield**—Morris Co. let contract surfacing 10.9 mi. State Highway 1 from Titus Co. line to 2 mi. north of Omaha, to Smith Bros., Crockett, $37,784; including 10% for engineering and contingencies. Work involves 10 acres clearing and grubbing, 6.5 mi. shouldering and reshaping, 8,085 cu.yd. local and 3,488 cu.yd. shipped gravel.

★**Tex., Nacogdoches** — Nacogdoches Co. let contracts grading, surfacing and building concrete culverts and headwalls on 19.58 mi. Garrison Rd. from here to Shelby Co. line, 15 ft. wide, and 9.73 mi. Highway 35, Lufkin Rd., from here to Angelina Co., 15 ft. wide, to H. F. Bland, San Augustine, $152,468 and $84,523 respectively. Noted Dec. 9.

Tex., Olton — Lamb Co. received bids grading, surfacing and draining 26.06 mi. State Highway 7 from Hockley Co. line to Soudan, from J. F. Hamer, Ft. Worth, $44,286; W. M. Rice Constr. Co., Amarillo, $45,866; McKnight & Howell, Amarillo, $48,817. Work involves 384.5 cu.yd. Class "A" concrete, 33,973 cu.yd. clay surfacing, 34,823 lb. reinforcing steel, 11,446 cu.yd. unclassified earth and 2,599 cu.yd. borrow excav.

★**Tex., Orange**—Orange Co. let contract grading, surfacing and draining 4.98 mi. Highway 3, Orange-Beaumont Rd., to Houston Constr. Co., McKinney Ave., Houston, $245,598; including 10% for engineering and contingencies. Noted Dec. 9.

★**Tex., Wichita Falls**—Wichita Co. let contract paving Ave. A, 8th, 9th and Grant Sts., involving 34,046 sq.yd. bitulithic pavement on broken stone foundation, to Texas Bitulithic Co., 1101-6 Praetorian Bldg., Dallas, $144,390. Noted Dec. 2.

Wash., Aberdeen— City received bids grading and paving Simpson and Park Aves., from Grays Harbor Constr. Co., Aberdeen, concrete $136,740; Aberdeen Paving Co., concrete $136,920, asphalt $132,296.

Wash., Seattle—City received bids grading and building walks on West 59th, involving 1,600 lin.ft. concrete sidewalks and 5,400 cu.yd. earth excav., from W. Traphagen, Walker Bldg., $16,176; J. Smith, Pioneer Bldg., $16,270; J. B. Cox, Seattle, $17,373.

Wash., Seattle—City received bids grading and building concrete walks on W. Ave. et al. from D. H. Traphagen, Walker Bldg., $90,293; Hansen & Hauge, Seattle, $95,746; G. A. Banderet, Seattle, $96,[illegible]. Noted Dec. 2.

Cal., Eagle Rock (Los Angeles P. O.) City received bids grading, building concrete curbs, concrete gutter and concrete sidewalks on Rosemont Ave. between Colorado Blvd. and Hill Ave. from W. D. McCray, Amer. Bank Bldg., Los Angeles, $16,029; P. L. Perry, Glendale, $23,759.

★**Cal., Los Angeles** — City let contract grading, curbing, guttering, oiling, etc. Gleason Ave. between Indiana and Lorena St., to W. D. McCray, 424 Amer. Bank Bldg., $22,939.

★**Cal., San Diego**—Common Council let contract to Fairchild-Gilmore-Wilton Co., 25 14th St. improving Union, Albatross and Juniper Sts., involving 207,163 sq.ft. paving with 4 in. concrete base and ¾ in. asphaltic macadam wearing surface, at $0.235; 1,700 sq.ft. surfacing existing gutters, $0.5; 290 lin.ft. concrete curbing, $0.70; 295 sq.ft. concrete sidewalking $0.25; removal of culverts, $100; 1,252 lin.ft. 4 in. c.i. water main, $3.30; 2 fire hydrants, $220, total $54,153. Noted Oct. 14.

Railways

PROPOSED WORK

Quebec—Montreal Tramway Co., Craig St., W., Montreal, plans to build ½ mi. double track in Verdun from Cote St. Paul Bridge to Wellington St. About $300,000. C. E. Granes, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

New York— Pub. Serv. Comn., 49 Lafayette St., New York City, received bids Dec. 10, for special work on track crossings in Livonia Ave. Yards, Brooklyn, from W. Wharton, Jr. Co., Inc., 30 Church St., New York City, $64,145; Ramapo Iron Wks., 30 Church St., New York City, $66,307; Bethlehem Steel Products Co., 111 Bway., New York City, $75,509. Noted Dec. 2.

Excavation and Dredging

PROPOSED WORK

N. J., Newark—Dredging—See "Miscellaneous."

Minn., Waseca—Ditch—Waseca Co. plans to build Co. Ditch 21, 12,439 ft. long, to drain 648 acres. About $23,412. G. Cox, Waseca, engr.

Utah, Provo—Irrigation—Goshen Valley Irrigation Co. plans to irrigate 15,000 acres of land. J. R. Murdock, pres. Engineer not selected.

Ariz., Thatcher—Drainage—Thatcher, D. D., having surveys and plans made draining 1,600 acres. About $35,000. H. L. Wells, Box 44, engr.

BIDS DESIRED

N. Y., New York—Dredging—Until Dec. 31, by M. Hulbert, comr. docks, Pier "A", ft. Battery Pl., furnishing labor and material for dredging in Borough of Manhattan and Brooklyn.

Ia., Osage—Drainage—Until Jan. 7, by A. M. Swanson, aud. Mitchell Co. and C. N. Urdhal, aud. Worth Co. (Northwood), building D. D. 6 and 51, involving 13.8 mi. 6-36 in. drain tile, cost $53,000; D. D. 7 and 50, 44 mi. 6-45 in. drain tile, $220,000. E. A. Iliff, Osage, engr.

Ia., Rockwell City—Drainage—Until Jan. 5, by R. B. Dixon, aud. Calhoun Co., C. W. Gilchrist, aud. Pocahontas Co. (Pocahontas), W. W. Bennett, aud. Buena Vista Co. (Storm Lake), E. W. Moyer, aud. Sac Co. (Sac City), building Joint D. D. 181 Branch Sect. 2, Big Cedar Main, involving

Excavation and Dredging (Continued)

1,513,000 cu.yd. excav.; Sect. 4, Little Cedar Main, 506,560 cu.yd. excav.; Sept. 5, Little Cedar Main, 682,952 cu.yd. excav. About $50,000. J. L. Parsons, Ft. Dodge, engr. Noted Sept. 23.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Minn., Crookston**—Ditches—Polk Co. let contracts building (1) Co. ditch 34, (2) Ditch 51, (3) Ditch 131, (4) Ditch 135, (a) repair work, (b) culverts, to Northern Minnesota Drainage Co., Litchfield. (1a) $11,166; Union Drainage Co., Crookston, (2a) $10,-273, (3a) $9,192, (4a) $7,518; P. H. Gramer, Crookston, (1b) $693, (3b) $2,59[illegible], (4b) $742; Valley Constr. Co., Stephen, (2b) $5,578. Noted Oct. 21.

Industrial Works

PROPOSED WORK

Vt., Windsor—Fdry. Co. plans to build 1 story, 115 x 250 ft. brick and steel foundry. Project will mature in spring. Architect not selected.

Mass., Charlestown (Boston P. O.)—J. C. Rogers, agent, 18 Tremont St., Boston, having plans prepared by F. O. Lewis, archt. and engr., 50 Bromfield St., Boston, for 7 story rein.-con. plant, rein.-con flooring, concrete foundation, on City Sq., here. About $300,000. Owner's name withheld.

Mass., East Boston (Boston P. O.)—H. Crisholm, archt., 8 Beacon St., Boston, preparing plans for 2 story, rein.-con. and brick garage on Saratoga St. About $60,-000. Owner's name withheld.

Mass., Gardner—Gardner Steam Laundry, Pine St., having plans prepared by P. Varney, archt., 25 Exchange St., Lynn, for 1 story, brick and concrete garage and laundry. About $50,000.

Mass., Westerly—Westerly Textile Co., 41 Main St., having plans prepared by C. T. Main, engr., 201 Devonshire St., Boston, for 2 story, mill construction addition to plant. About $50,000.

Conn., Hartford—A. Goldstein, 593 Windsor St., having plans prepared by F. C. Walz, archt., 407 Trumbull St., for 1 story, brick and steel garage, on Morgan St. About $50,000.

N. J., East Orange—C. B. Comstock, archt. and engr., 110 West 40th St., New York City, rejected bids building 3 story top addition to present building and 5 story side addition, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, here, for Ward Baking Co., South Blvd. and St. Marys St., New York City. Work will be readvertised. Noted Oct. 21.

Pa., Johnstown—Flood City Mfg. Co. Elder St., plans to build 2 story, 80 x 200 ft., rein.-con., brick and steel plant. About $250,000. J. L. Hershberger, pres.

Pa., Raven Run—J. S. Wentz Co., Markle Bldg., Hazleton, plans to build frame breaker on coal tract here. About $150,000. G. S. Troutman, Markle Bldg., Hazleton, engr. and archt.

Pa., Sharon—Sharon Steel Hoop Co., South Irvine Ave., having preliminary plans prepared by J. H. Herron Co., engrs and archts., 1360 West 3rd St., Cleveland, O., for 2 story, concrete, brick and steel factory, rein.-con. flooring, concrete and brick foundation. About $150,000.

Md., Rockville—International Shoe Steel Corp. having plans prepared by H. C. Cutler, archt. and engr., Mutual Fire Bldg., 13th and H Sts., Wash., D. C., for four 1 story, 35 x 200 ft. heel shops and two 4 story, 45 x 200 ft. shoe shops, concrete, concrete foundations. About $350,000.

N. C., Andrews—F. P. Cover & Sons, recently incorporated with $1,500,000 capital stock, plan to build tannery.

Ga., Rome—Towers & Sullivan Mfg. Co. plans to build 1 story, rein.-con., steel and brick machine shop. About $75,000.

Fla., St. Petersburg—Williams-Beers Ice Co. having plans prepared by H. Beers, engrs., St. Petersburg, for ice plant. About $100,000. H. Williams, pres.

O., Cleveland—Acme Petroleum Products Co., 3591 West 56th St., plans to build 2 story, brick and steel factory, brick foundation. About $75,000. Private plans.

O., Cleveland—Cretney Co., 14453 Euclid Ave., plans to build 1 story, 70 x 130 ft., rein.-con., brick and steel garage, rein.-con. flooring, brick and concrete foundation, on Euclid and Eastham Aves. About $50,000. T. A. Cretney, pres. Architect not selected.

O., Cleveland—Par-Brook Mfg. Co., Brookpark Rd., plans to build 1 story, 60 x 150 ft., brick and steel factory addition, brick foundation. About $50,000. G. S. Rider & Co., Century Bldg., archts.

Ind., Terre Haute—Industrial Supply Co., 322 North 9th St., plans to build 3 story, rein.-con. and brick warehouse and office, on Wabash Ave. About $100,000. Johnson, Miller & Miller, 105 South 7th St., archts.

Ill., Chicago—Tooker Storage & Forwarding Co., 1400 South Clark St., plans to build warehouse in spring. About $750,000. Architect's name withheld.

Ill., East St. Louis—East St. Louis Locomotive & Car Co., 5483 Ellis Ave., Chicago, purchased 145 acre site and plans to build (1) wooden freight car repair shop, (2) shop for rebuilding steel under frames for wooden cars, (3) all steel car repair shop, (4) locomotive repair shop. Project also includes large amount of trackage work. About $1,000,000. R. W. Crawford, 5483 Ellis Ave., Chicago, engr. Noted Sept. 30.

Wis., Sheboygan—H. H. Schmidt, c/o C. Reiss Coal Co., having plans prepared by R. R. Jahn, archt., Betsy Ross Bldg., for 2-3 story, 60 x 185 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Jefferson and 8th Sts. Cost between $75,000 and $100,000.

Wis., Sheboygan—Sheboygan Cold Storage Co., c/o E. C. Peacock, South 12th St. and Jefferson Ave., plans to build 2-3 story, 100 x 250 ft., rein.-con., brick and steel plant, on West Water St., to replace one destroyed by fire. Loss between $350,000 and $400,000. Architect not selected.

S. D., Mitchell—Farmers Union Wholesale Co., c/o State Farmers Union, Mitchell, plans to build purchasing plant. About $1,000,000. Architect not announced.

Que., Montreal—M. B. Steine, Ltd., 86 Grey Nuns St., plans to build brick and steel addition to plant. About $100,000.

RAILWAY—BROOKLYN, N. Y.

Order No. 19

Bids were received by Pub. Serv. Comm., 49 Lafayette St., New York City, for special work on track crossings in Livonia Ave. Yards, from (A) W. Wharton, Jr. & Co., Inc.; (B) Ramapo Iron Wks.; (C) Bethlehem Steel Products Co., Bethlehem, Pa. The unit bids were as follows:

	A	B	C
For special work portion 235 furnished and delivered, complete (lump sum)	$8,090.00	$7,600.00	$9,982.00
For special work portion 236 furnished and delivered, complete (lump sum)	7,294.00	7,300.00	7,800.00
For special work portion 237 furnished and delivered, complete (lump sum)	8,149.00	7,750.00	9,450.00
For special work portion 238 furnished and delivered, complete (lump sum)	4,730.00	4,445.00	5,128.00
For special work portion 239 furnished and delivered, complete (lump sum)	3,411.00	3,185.00	3,242.00
For special work portion 240 furnished and delivered, complete (lump sum)	3,287.00	3,220.00	3,466.00
For special work portion 241 furnished and delivered, complete (lump sum)	5,885.00	5,590.00	5,870.00
For furnishing and delivering, complete, portion 242 (track appurtenances) as follows:			
255 (a) splice bars, type C	2.30	2.00	*2.40
350 (b) splice bars, type C, sheared	3.10	2.90	*3.40
90 (c) bolts, including nuts, type A	.55	.50	.30
90 (d) bolts, including nuts, type B	.50	.50	.35
530 (e) bolts, including nuts, type C	.47	.50	.40
2,350 (f) bolts, including nuts, type E	.35	.50	.30
570 (g) main rail braces	1.15	1.25	1.60
310 (h) cast iron separators, type B	.00	1.25	.90
2,800 (i) tie plates, type A	.88	1.25	*1.60
770 (j) tie plates, type B	1.90	2.50	*2.25
450 (k) tie plates, type C	2.15	2.50	*3.50
470 (l) tie plates, type D, with wedge	2.70	2.75	*5.50
2,550 (m) tie plates, type E	1.65	1.75	*2.40
5,500 (n) screw spikes, type B	.50	.55	.35
1,050 (o) splice bars for 85 lb. A.S.C.E. rail	1.18	1.20	*1.20
2,100 (p) splice bar bolts for 85 lb. A.S.C.E. rail	.14	.15	.11
45 (q) left hand end inclines	8.20	11.00	13.50
5,800 (r) cup washers, type B	.14	.20	.21
4,700 (s) oblong washers, type C	.07	.15	.20
2,800 (t) bolts, including nuts, type F, 15½ in.	.46	.47	.48
475 (u) bolts, including nuts, type F, 18½ in.	.49	.50	.50
3,200 (v) bolts, including nuts, type H, 9½ in.	.40	.43	.52
60 (w) bolts, including nuts, type H, 13 in.	.45	.50	.55
475 (x) bolts, including nuts, type H, 14½ in.	.49	.50	.56
40 (y) cast steel compromise joint plates, including bolts 20 R.H. and 20 L.H.	8.00	15.00	*10.40
Extended totals	$64,145	$66,307	$75,509

*Exceptions—Items A and B—Offer B.S. Co. standard splice bar fitting 100 lb. rail section 161 as per print attached.
Item O—Offer B.S. Co. standard splice bar, section 235 fitting 85 lb. A.S.C.E. rail, as per print attached.
Item I—Offer B.S. Co. tie plate, 10½ in. wide, P.R.R. print 659 attached.
Item J—Offer tie plate machined from solid rolled steel bars.
Item K—Offer tie plate machined from solid rolled steel bars.
Item L—Offer tie plate machined or forged from solid rolled steel bars.
Item M—Offer tie plate machined from solid rolled steel bars, as per sketch 12,208 attached.
Item Y—Offer Q. & C. Bonzano rolled steel step joints, design 978, as per lithographs attached.

BIDS DESIRED

R. I., Woonsocket—Lafayette Worsted Co., Hamlet St., receiving bids building 4 story, 138 x 246 ft. mill construction addition to plant, concrete foundation. About $350,000. W. F. Fontaine, Federal Bldg., archt. Noted Aug. 5.

Ill., La Salle—Until March 1, by Weightman & Steigely, archts. and engrs., 21 North La Salle St., Chicago, building 2 story, 80 x 350 ft., concrete, brick and steel factory, concrete foundation. About $200,000. Owner's name withheld.

Wis., Milwaukee—A. D. Koch, archt., Wells Bldg., opens bids about Jan. 1, constructing 2 story, 120 x 125 ft., glass factory, mill construction, concrete foundation, on 32nd St., for Panay Horizontal Show Jar Co., 1102 32nd St.

Cal., Sausalito—City Trustees plan election to vote on $40,000 bonds to build gas distributing plant.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Chicopee**—Dwight Mfg. Co., Exchange Bldg., Boston, let contract building superstructure of 6 story, 150 x 600 ft. rein.-con. and brick addition to plant, rein.-con. flooring, to Casper Ranger Constr. Co., 20 Bond St., Holyoke. Concrete foundation will be built by day labor.

★**Mass., Lee** — Tayford Co., Inc., 154 Nassau St., New York City, let contract building 1 story, brick and concrete hydro-electric plant along Housatonic River, to H. W. Taylor, 154 Nassau St., New York City. About $150,000.

★**Mass., New Bedford** — New Bedford Shuttle Co., 24 Elm St., will build 2 story, 40 x 125 ft. mill construction addition to factory, on Rockdale Ave. About $40,000. Work will be done by day labor. Noted Dec. 2.

★**N. Y., New York**—Shaskin Realty Co., 220 Bway., will build 2 story, 75 x 225 ft., brick and steel garage, rein.-con. flooring,

concrete foundation, on Inwood Ave. near 170th St. About $60,000. G. Shaskin, pres. Work will be done by day labor.

★**N. Y., New York**—Sixteenth St. Garage Corp., c/o C. Kreymborg, archt. and engr., 309 East Kingsbridge Rd., will alter 5 story, brick and steel garage, rein.-con. flooring, at 235 West 16th St. About $50,000. Work will be done by day labor.

★**N. J., Bloomfield**—C. F. Stiefel, 60 South Orange St., let contract building 1 story, rein.-con. and steel factory and power house, rein.-con. flooring, concrete foundation, on Orange St. near Delaware, Lackawanna & Western R.R. tracks, to White Constr. Co., 95 Madison Ave., New York City. About $80,000.

★**N. J., Ridgefield**—Continental Paper Box Co., 122 Washington St., Brooklyn, let contract building 2 story, 100 x 500 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on Grand Ave. and Hall St., here, to Gretsch Eng. Corp., 103 Park Ave., New York City. About $250,000. Noted Dec. 2.

★**Va., Richmond**—C. G. Mercer and R. C. Trettan, 218 North 9th St., will build 3 story, 40 x 50 x 140 ft. brick garage, at 608 East Grace St. About $50,000. Work will be done by day labor.

★**Ga., Trion**—Trion Co. will build 3 story, 25 x 40 ft. addition to power house, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $100,000. Work will be done by day labor. Noted Oct. 7.

★**O., Cleveland**—P. Matzinger, archt., Caxton Bldg., let contract to A. W. Laws, 2206 East 93rd St., building 1 story, 60 x 233 ft., brick and steel factory, brick foundation, at 6602 Sidaway Ave., for Cleveland Refrigerator Co., 2996 East 72nd St. About $50,000. Noted Dec. 16.

★**O., Cleveland Heights** (Warrensville P. O.)—Bd. Educ. let general contract building 2 story, 50 x 67 ft., concrete, brick and steel power plant, rein.-con. flooring, concrete foundation, on Lee Rd., to P. Kirschner, 1008 Hippodrome Bldg., Cleveland. Noted Nov. 4.

★**Ont., Hamilton** — Canadian Libbey-Owens Sheet Glass Co. let contract building 2 story, 150 x 540 ft. brick and steel plant, to H. W. Cooper, Hamilton. About $1,000,000.

Buildings

PROPOSED WORK

Mass., Boston — Municipal — City having plans prepared by J. A. Schweinfurth, archt., 53 State St., for brick, stone and steel, on Shawmut Ave. and Brookline St., to contain swimming pool, gymnasium, lecture hall, etc. About $300,000. Noted Oct. 7.

Mass., Boston—Store—L. K. Liggett Co., 151 5th Ave., New York City, plans to alter store and loft building at 50 Washington St., here. About $75,000. W. T. Williams, 151 5th Ave., New York City, archt.

Mass., Brookline (Boston P. O.)—Nurses Home—Childrens Hospital, 300 Longwood Ave., having plans prepared by Coolidge & Shattuck, archts., 1 Court St., Boston, for remodeling and converting apartment house on Longwood Ave. into nurses home. About $100,000.

Mass., Holyoke—High School—School Bldg. Com. having plans prepared by G. P. B. Alderman & Co., archts., Alderman Bldg., for 3 story, fireproof, on Maple St. About $300,000.

Mass., Holyoke—School—City having plans prepared by G. P. B. Alderman & Co., archts., 316 High St., for 2 story, brick, on Lawrence and Maple Sts. About $250,000. Noted Dec. 9.

Mass., Marboro—Club House—Black & White Country Club, Concord Rd., plans to build 2½ story club house and golf course. About $75,000. Architect not selected.

Mass., Northampton — College — Smith College, College Hall, having sketches made by J. W. Ames, archt., 15 Exchange St., Boston, for 3 buildings.

Mass., Roslindale (Boston P. O.—Club—Masonic Apartments, Mt. Vernon St., Boston, had plans prepared by H. B. Alden, archt. and engr., 15 Exchange St., Boston, for remodeling and constructing 1 story addition to old building, on Belgrade Ave., here. About $75,000.

R. I., Pawtucket—Mission—J. Thompson Mission, c/o R. C. N. Monahan, archt., 255 Union St., having plans prepared for 3 story, brick and steel, on East Ave. and Pleasant St.

Conn., Glastonbury—School—School Bd. plans to build 2 story, 12 room, grammar school. About $100,000. Architect not selected.

Conn., Hartford—Church—Our Lady of Sorrows Church, 85 New Park Ave., had plans prepared by O'Connell & Shaw, archts., 18 Boylston St., Boston, and receives bids in spring, building 1 story, 75 x 170 ft. brick and stone, concrete foundation, on New Park Ave. and Grace St. About $250,000. H. Galven, Pres. Noted Jan. 15.

Conn., New Britain—Dormitory—State Bd. Educ., Hartford, having plans prepared by G. C. Betelle, archt., 2 Lombardi St., for dormitory, at State Normal School. About $900,000.

Conn., New Britain—Temple—Masonic Order, Elton Pl., having revised plans prepared by M. J. Unkelbach, archt., 162 Main St., for 7 story, 110 x 210 ft., concrete, brick and steel, on North Main St. Noted May 13.

Conn., New Haven—Business—A. Perlroth, 865 Chapel St., plans to construct fireproof business building on Chapel and State Sts. About $250,000. Architect not selected.

Conn., Norwalk—Hall—M. Joselovsky, 41 Seaview Ave., East Norwalk, plans to remodel music-hall, on South Main St., here. About $75,000. H. W. Mather, Hartland Bldg., archt.

N. Y., Brooklyn—Hospital—Brooklyn Eye & Ear Hospital, 94 Livingston St., having sketches made by Crow, Lewis & Wick, archts. and engrs., 200 5th Ave., New York City, for 7 story, 100 x 200 ft., brick, steel and stone, concrete foundation, on Cumberland St., Carlton and Greene Aves.

N. Y., Yonkers—Clubhouse—La Rabida Council, K. of C., 107 South Bway., having plans prepared by B. Werner, archt., 107 South Bway., for 3 story, on South Bway. and St. Mary St. About $100,000.

N. J., Camden—Schools—Bd. Educ. plans to build 12 room addition to Yorkship Village school; 16 room addition to school, on 32nd St.; 6 room addition to Whittier school. Architect not selected.

N. J., Jersey City—Theater and Office—States Theater Corp., Sinisi Bldg., plans to construct theater and office building on Bergen Ave. and Newkirk St. About $200,000.

N. J., Kearney (Arlington P. O.)—High School—Bd. Educ. having sketches made by Guilbert & Betelle, archts., 2 Lombardi St., Newark, for high school, on Devon St. About $600,000.

N. J., Newark—Auditorium—Salaam Temple of Mystic Shrine, 165 Market St., plans to build 3 story, 129 x 225 ft., seating capacity 5,000, on Broad St. About $1,000,000. M. W. Beemer, 101 Halsey St., engr. Architect not selected.

N. J., Phillipsburg—School—Bd. Educ. had plans prepared by Ritcher & Eiler, archts., 33 North 6th St., Reading, Pa., for Brensinger School, 2 story. About $150,000.

Md., Baltimore — Convent — All Saints Church having plans prepared by Mottu & White, archts., 324 North Charles St., for 3 story, 60 x 200 ft., brick, on Hilton Ave.

W. Va., Charleston—Jail—Kanawha Co. having plans prepared by H. R. Warne, archt., Masonic Temple, for jail on Court and Virginia Sts. About $300,000.

N. C., Asheville—Schools—City plans to issue $500,000 bonds to build one 16 room, two 14 room, one 12 rom and one 8 room schools. W. H. Lord, Asheville, consult. engr.

N. C., Asheville—Y. M. C. A., 2 West 45th St., New York City, soon receives bids constructing brick and stone building, here. About $200,000. Jallade, Lindsay & Warren, 129 Lexington Ave., New York City, archts.

N. C., Canton—High School—City voted $85,000 bonds to build new high school.

N. C., East Durham—Church—East Durham Baptist Church plans to build 2 story brick and stone. About $75,000. C. Carlton, Chattanooga, Tenn., archt.

N. C., Greensboro—Schools—City election Jan. 14 to vote on $1,000,000 bonds to build schools.

N. C., Henderson—School—City vote $100,000 bonds to build school.

N. C., High Point — High School — High Point Twp. election Jan. 18, to vote on $600,000 bonds to build central high school.

Ga., Augusta—Y. M. C. A., Greene and 9th Sts., plans to build 4 story, rein.-con. limestone and brick, rein.-con. flooring. About $300,000. Murphy & Dunn, 32 Madison Ave., New York City, archts.

Ala., Albany—School and City Hall—City plans election to vote on $200,000 bonds to build school and city hall. E. C. Payne, mayor.

Tenn., Nashville — Church — Belmont Heights Baptist Church having plans prepared by Hart & Evans, archts., Independent Lift Bldg., for 3 story. About $100,000. H. P. Jacobs, chn.

O., Akron—Market—City Council authorized issuance of $200,000 to purchase site on Cherry St., for market house. Total cost $500,000.

O., Akron—School—Bd. Educ. plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, in Goodyear Heights. About $500,000. M. M. Komarski, Central High School, archt. Puegley, Szekley & Beam, 5716 Euclid Ave., Cleveland, engrs.

O., Cleveland—Church and School—St. Wensislaus Church, c/o J. W. Koudelka, pastor, 2666 East 35th St., having plans prepared by E. Uhlrich, archt., 8617 Carnegie Ave., for 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Libby Rd. About $100,000. Noted Sept. 23.

O., Cleveland—Commercial—Galvin Bros., 1371 West 6th St., plan to build 3 story, 65 x 100 ft., brick and steel, brick foundation, on West 3d St. and St. Clair Ave. About $75,000. Architect not selected.

O., Cleveland—Commercial—Koblitz Co. The Arcade plans to remodel 6 story, brick and steel, on West 6th St. and St. Clair Ave. About $100,000. Private plans.

O., Cleveland—Commercial—A. M. Wagner, pres. Cuyahoga Mortgage Co., 211 Williamson Bldg., plans to build 3 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 14th St. and Euclid Ave. About $100,000. Architect not selected.

O., Cleveland—Commercial—M. Teplitz, 4901 Woodland Ave., opens bids about Dec. 29, building 1 story, 100 x 100 ft., brick, brick foundation, at 905 East 105th St. About $75,000. M. Weis, 618 Union Bldg., archt.

O., Cleveland—Office—Sanlin Co., Schofield Bldg., having preliminary plans prepared by Rutan, Russell & Wood, archts., Century Bldg., Pittsburgh, Pa., for 16 story, 86 x 165 ft., brick and steel, rein.-con. flooring. About $2,000,000.

O., Portsmouth—High School—Bd. Educ. plans to build 3 story, 110 x 130 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation. About $400,000. A. Pretzinger, 1155 Reibold Bldg., Dayton, archt.

O., West Park—Schools—Bd. Educ. having preliminary plans prepared by Fulton-Taylor & Cahill, archts., 8120 Euclid Ave., Cleveland, for 2 story, 19 room, in Lennox Park Dist., and 2 story, 8 room, in Puritas Springs, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundations. About $250,000 and $100,000 respectively. F. W. Featherstone, clk.

O., Youngstown—Hotel—M. C. Hannon, Hotel Ohio, receives bids early in spring building 4 story, 250 x 250 ft. rein.-con. and brick addition, on Boardman St. About $75,000.

Ind., Garrett—School—Bd. Educ. receives bids after Jan. 1, building 2 story, 60 x 128 ft., brick and stone. About $80,000. A. H. Elwood & Son, Elkhart, archts.

Buildings (Continued)

Ind., Hammond—Schools—Bd. Educ. had revised plans prepared by Perkins, Fellows & Hamilton, archts., 814 Tower Court, Chicago, Ill., for two 2 story, 134 x 377 ft., brick and hollow tile. (Bedford stone or terra cotta trim), rein.-con. flooring. About $200,000 each.

Ind., Gary — Church — First Christian Church plans to build 2 story, 70 x 100 ft., brick and stone, on 7th and Jefferson S s. About $100,000. O. E. Tomes, pastor. A. F. Wickes, 467 Bway., archt.

Ind., Indiana Harbor—Office—E. Keitsik, c/o M. Turner, archt., Hammond, plans to build 2 story, 70 x 125 ft., brick, here. About $80,000.

Ind., Montpelier — School — Bd. Educ. plans to build 2 story, 100 x 150 ft., brick, rein.-con. flooring. About $140,000. E. I. Brown, Bluton, archt.

Ind., South Bend — Cathedral — Scottish Rite having sketches made by R. G. Schmid, archt., 154 West Randolph St., Chicago, Ill., for brick, steel and stone, rein.-con. flooring, probably 4 story. About $500,000.

Ind., South Bend—Fraternity—Fraternal Bldg. Assn. plans to build 6 story, 75 x 95 ft., brick, at 109 East Wayne St. C. Bell, pres. Freyermuth & Maurer, 308 South Michigan St., archts.

Ind., South Bend—Hotel—Tavern Hotel Co. receives bids in January, building 10 story, 88 x 165 ft., rein.-con., rein.-con. foundation. About $1,500,000. R. F. France, 155 North Clark St., Chicago, archt. Noted Oct. 28.

Ind., Terre Haute—Office, etc.—See "Industrial Works."

Ind., Whiting—School—Bd. Educ. receives bids in spring, building 2 story, 100 x 195 ft., brick, rein.-con. flooring. About $200,000. N. S. Spencer & Son, Old Colony Bldg., Chicago, Ill., archts.

Mich., Ann Arbor—College—University of Michigan, c/o M. L. Burton, pres., plans to construct additional buildings on campus, as follows: literary building, cost $900,000; museum, $900,000; engineering shops and laboratories, $1,500,000; physics laboratory, $800,000; medical building, $900,000; high school building, 350,000; addition to dentistry building, $200,000; chemical laboratory, $400,000; biological sta. at Douglas Lake, $40,000, all brick, steel and rein.-con. Engineer not selected.

Mich., Saginaw—Library—Hoyt Library having plans prepared by Boring & Tilton, archts., 52 Vanderbilt Ave., New York City, for 1½ story, brick and stone addition. About $100,000.

Ill., Chicago—Office—McCormick Estate, c/o Holabird & Roche, archts., 104 South Michigan Blvd., having plans prepared for 5 story, 101 x 135 ft., rein.-con., steel and terra cotta addition, rein.-con. flooring, concrete foundation, at 11 South La Salle St. About $1,250,000.

Ill., Evanston — Church — Hemenway Methodist Episcopal Church having plans prepared by Tallmadge & Watson, archts., 189 West Madison St., Chicago, for 1 story, rein.-con. and steel, concrete foundation. About $175,000.

Ill., Melrose Park—School—Bd. Educ. receives bids in January, building 3 story, 40 x 113 ft., fireproof. About $75,000. E. E. Roberts and J. A. Chiaro, 105 North Clark St., Chicago, archts.

Ill., Normal—School—E. D. Martin, state archt., Springfield, receives bids about Jan. 1, building 1 story, 80 x 100 ft., concrete and brick, concrete foundation, at Soldiers Orphans Home, here, for Illinois State Dept. Pub. Wks. & Bldgs., Springfield. About $80,000.

Ill., Wilmette—School—F. B. Byrne, Jr., archt., 104 South Michigan Blvd., Chicago, receives bids about Feb. 25, building 2 story, 40 x 100 ft., rein.-con., rein.-con. flooring, concrete foundation, for St. Francis Xavier Parish, here. About $100,000.

Wis., Fairchild—School—Bd. Educ. plans to build 2 story, rein.-con., brick and tile. About $100,000. M. Hood, pres. Architect not selected.

Wis., West Bend—Hospital—City plans to build 5-7 story, 60 x 350 ft., rein.-con., brick and stone, brick foundation. About $250,000. C. P. Hupp, clk. Architect not selected.

Ia., Dunbar—School—Bd. Educ. plans to build 2 story, rein.-con. and brick. About $75,000. O. Tweed, secy. Architect not announced.

Ia., Hull — High School — Western Academy having plans prepared by Beuttler & Arnold, archts., 235 Grain Exch. Bldg., Sioux City, for 2 story, rein.-con., brick, stone and tile. About $100,000.

Ia., Marshalltown—Bank—Fidelity Savings Bank receives bids about Jan. 1, remodeling and building 2 story, 20 x 60 ft., rein.-con., brick and stone addition. About $75,000. H. E. Reimer, Kibby Bldg., archt.

Ia., New Market—School—Bd. Educ. opens bids in January, building 2 story, 54 x 85 ft., rein.-con., brick and tile. About $75,000. A. L. Rowen, secy. H. E. Reimer, Kibby Bldg., Marshalltown, archt.

Building Contracts Let

Last week 39 contracts were let for non-industrial buildings, totalling

$18,274,000

while a year ago 36 contracts were awarded for

$13,525,000

Last week proposals asked on large non-industrial building projects numbered

42

against the year-ago figure of

31

Watch these pages for complete

Construction News

Ia., Wallingford—School—Bd. Educ. having plans prepared by T. Thorson, archt., Forest City, for 2 story, rein.-con., brick and tile. About $75,000.

Minn., Atwater—School—Bd. Educ. plans to build 2 story, rein.-con. brick and tile. About $85,000. I. Anderson, clk. Architect not announced.

Minn., Coon Creek—School—School Dist. 5 having plans prepared by Foss & Foss, archts., St. Cloud, for 2 story, rein.-con. and brick, here. About $75,000. R. P. Roberts, R. F. D. No. 3, Anoka, clk

Minn., Crookston—College—Sisters of St. Benedict, c/o Bishop T. Corbett, Crookston, conducting campaign to raise $700,000 to build womens college. Architect not announced.

Minn., Fergus Falls — Court House — Comrs. Ottertail Co. soon receive bids building 3 story, rein.-con., brick and tile. About $300,000. Beuchner & Orth, 540 Shubert Bldg., St. Paul, archts.

Minn., Hackensack—School—F. R. Ross, clk. Cass Co. School Dist. (Walker) receives bids in January building 2½ story, 95 x 102 ft., rein.-con., brick and tile. About $75,000. Libenberg, Kaplan & Martin, 615 McKnight Bldg., Minneapolis, archt. Noted Nov. 4

Minn., Hibbing — Theater — Twin City Amusement Trust Estate, 425 Loeb Arcade, Minneapolis, having plans prepared by Kees & Colburn, archts., 216 Plymouth Bldg., Minneapolis, and soon receives bids building 2 story, 50 x 140 ft. rein.-con., brick and tile. About $100,000.

Minn., Hutchinson — School — Bd. Educ. plans to build 2 story, rein.-con., brick and tile. About $150,000. H. Brown, Jr., secy. Architect not announced.

Minn., Litchfield — High School — Bd. Educ. plans to build 2 or 3 story, rein.-con., brick, tile and stone. About $300,000. J. T. Mullen, clk. Architect not announced.

Minn., New Prague — High School — Bd. Educ. plans to build 2 story rein.-con., brick and tile. About $85,000. J. Joach, clk. Architect not selected.

Minn., St. Paul—Post Office—H. D. Loeb, 30 North La Salle St., Chicago, had plans prepared by J. P. Cowing Eng. Co., engrs., 30 North LaSalle St., Chicago, for 3 or 4 story, 100 x 157 ft. rein.-con. and steel, rein.-con. flooring, concrete foundation. About $750,000.

Minn., Storden—School—Bd. Educ. having plans prepared and receives bids about Jan. 25 building 2 story, rein.-con., brick and tile. About $100,000. S. Anderson, clk. C. H. Parsons, 600 Builders Exch. Bldg., Minneapolis, archt.

Minn., Waubun — School — Bd. Educ. receives bids about Jan. 1, building 2 story, 100 x 110 ft., rein.-con., brick and steel. About $75,000. Foss & Foss, St. Cloud, archts.

Kan., Kansas City—Temple—Union Labor Organization, c/o T. J. Flynn, City Hall, having plans prepared by Rose & Peterson, archts., Barker Bldg., for temple, probably 4 story. About $250,000.

Kan., Wichita—Temple — Midian Shrine plans to build 2 story, 200 x 200 ft., concrete, on 1st St. and Francis Ave. About $1,000,000. T. G. Fitch, trustee. Architect not selected.

Neb., Benkelman—Court House—Comrs. Dundy Co. having plans prepared by A. T. Simmons, archt., Bloomington, Ill., for 2 story, 50 x 80 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $85,000.

Neb., Blair—College—Dane College having plans prepared by J. C. Jensen, archt., 305 West Bway., Council Bluffs, Ia., for 2 dormitories and administration building. About $300,000.

Neb., Hebron—Academy—Hebron Luthern College having plans prepared by G. A. Berlinghof, archt., 414 Security Mutual Life Insurance Bldg., Lincoln, for academy. About $80,000.

S. D., Egan—School—Bd. Educ. having plans prepared by Schumacker & Finkelhor, archts., Sioux Falls, for school. About $150,000. Noted Oct. 7.

S. D., Waverly—School—Bd. Educ. receives bids in January building 2 story, 80 x 109 ft., rein.-con. and brick. About $100,000. M. F. Anthony, secy. K. T. Snyder, 739 Plymouth Bldg., Minneapolis, Minn., archt.

N. D., Carrington — High School — Bd. Educ. having plans prepared by Shannon, Boyd & Boyd, archts., Jamestown, for 2 story, rein.-con., brick and tile. About $150,000. E. T. Smith, supt.

N. D., Hettinger—Hospital—Adams Co. rejected bids building 2 story, rein.-con. and brick. About $75,000. Work will be readvertised in 1921. G. R. Horton, Jamestown, archt.

Mont., Bozeman—College—Montana State College, 9th Ave., plans to construct addi-

Buildings (Continued)

tional buildings. About $1,235,000. A. Atkinson, 915 South 3d St., pres.

Mo., Kirkwood—High School—City plans election to vote on $205,000 bonds to build high school. Architect not selected.

Mo., St. Louis—Office—Widman, Walsh & Pankan, archts., Wainwright Bldg., receive bids in spring, building 4 story, 11 x 250 ft., rein.-con. and brick, rein.-con. flooring, on Olive St., for Lowenstein Bros. Real Estate Co., Wainwright Bldg. About $750,000. Former bids rejected. Noted Aug. 26.

Tex., Amarillo—Auditorium—Bd. City Development plans to sell $300,000 bonds to build auditorium. L. D. Marrs, mayor. Noted Aug. 12.

Tex., San Antonio—Hotel—Hot Wells Hotel, South Presa St., having plans prepared remodeling buildings and grou Plans also include dam to develop 140 h.p.

Okla., Bartlesville—Hospital — Washington Co. plans to build 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $200,000. Architect not selected.

Okla., Tulsa—Office—D. Hunt, c/o Hunt Co., 311-313 South Main St., having plans prepared by W. D. Vanseelen, archt., 319 South Detroit St., for 10 story, 50 x 140 ft., rein.-con. and steel, on South Main St. About $450,000. A. F. Waseidewaski, 1319 South Cheyene St., engr.

Col., Denver — Church and College — Divine Science College and Church, 730 East 17th Ave., having plans prepared by J. B. Benedict, archt. 1669 Bway., for 78 x 102 ft. terra cotta and brick, concrete foundation, on 14th Ave. and Williams St. About $100,000.

Col., Denver — Home — Natl. Benevolent Assn. of Christian Church, 2955 North Euclid Ave., St. Louis, Mo., receives bids in Janary, building children's home, 2 story, on West 29th Ave. and Tennyson St., here. About $100,00. W. A. Matlock, 2079 Albion St., local secy. Private plans.

Col., Denver — Hotel — Bennett & Myers, Taber Bldg. plan to build hotel on Bway., East 17th Ave. and Lincoln St. About $5,000,000. Architect not selected.

Col., Denver — Temple — Masonic Temple Assn., Inc. plans to build temple. Cost between $1,000,000 and $1,250,000. E. C. Bennett, Kenmark Hotel, trustee. Architect not selected.

Col., Denver — Temple, etc. — Temple Emanuel Assn., East 16th Ave. and Pearl St., conducting campaign to raise $350,000 to build temple, and $150,000 to construct 2 other buildings. R. Wieger, Chamber of Commerce Bldg., archt.

Cal., Bakersfield—School—Kern Co. Union High School had plans prepared by C. A. Biggar, archt., Morgan Bldg., for domestic science building. About $100,000.

Cal., Los Angeles—Business and Lodge—Long Beach Branch Amer. Legion having preliminary plans prepared for 3 story, 50 x 140 ft. brick, rein.-con. foundation, on American Ave. and 7th St. About $100,000. Architect not announced.

Cal., Pomona—City plans election soon to vote on $400,000 or $500,000 bonds to build high schools. R. H. Orr, 1301 Van Nuys Bldg., Los Angeles, and W. H. Weeks, 75 Post St., San Francisco, archts.

Cal., Santa Monica — Auditorium — City having plans prepared by C. H. Russell, archt., 1106 Story Bldg., Los Angeles, for 1 story, 82 x 142 ft. frame, along Ocean Front. About $135,000.

Ont., Ottawa—Hall—Parish of St. Jean Baptiste plans to build parish hall. About $150,000. Address P. M. Marchand, 95 Empress Ave. Architect not selected.

Ont., Toronto—Educational Block—Dept. Educ. receives bids early in 1921 for building educational block. About $2,000,000. Address M. Doherty, c/o Dept. Educ.

B. C., New Westminster—Theatre—British Columbia Paramount Theatres Ltd., 963 Granville St., Vancouver, having plans prepared and receives bids in January building 2 story, 50 x 120 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here. About $150,000. J. M. Jeffrey, 348 Confederation Life Bldg., Toronto, Ont., archt.

BIDS DESIRED

Mass., Brookline (Boston P. O.)—Hospital—H. F. Kellogg, archt., 93 Federal St., Boston, receiving bids building, 3 story, 80 x 130 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on Pond Ave., for Hospital Corp., c/o architect. About $150,000. Noted July 15.

Conn., Orange—School—Until Jan. 15, by West School Dist. building 2 story, 64 x 88 ft. brick and steel, rein.-con. flooring, concrete foundation, on Seaview Ave. About $75,000. D. E. Smith, Liberty Bldg., New Haven, archt. Noted July 22.

Conn., Thompsonville—School—Until Jan. 30, by School Bd., Town of Enfield, building 2 story, brick and steel addition to A. D. Higgins School, on North Main St., here. About $130,000. I. A. Allen, Jr., Inc., 904 Main St., Hartford, archt. Noted Dec. 2.

N. J., Boonton—School—Until Dec. 27, by Bd. Educ. building 2 story, brick and stone, concrete foundation, on Lathrop Ave. About $200,000. W. Potter, 22 East 17th St., New York City, archt. Noted July 29.

Va., Bristol—Dormitory—Until Jan. 3, by C. B. Kearfott, archt., Galloway Bldg., constructing 4 story, 40 x 120 ft. concrete and brick, for Virginia Intermont College. Cost between $75,000 and $85,000.

O., Cleveland—Bank—Cleveland Trust Co., c/o A. McCaslin, East 9th St. and Euclid Ave., receiving bids building 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 55th St. and Woodland Ave. About $100,000. G. P. Post & Son, Schofield Bldg., archts.

O., Cleveland—Bank—Guardian Savings & Trust Co., 623 Euclid Ave., receiving bids remodeling 1 story, marble and stone, on East 105th St. and Euclid Ave. About $75,000. Walker & Weeks, 1900 Euclid Ave., archts. Noted Jan. 29.

O., Cleveland—School—Until Jan. 10, by Bd. Educ., East 6th St. and Rockwell Ave., building 2 story, 20 room, rein.-con., brick and steel addition, rein.-con. flooring, brick foundation, on East 146th St. near Kinsman Rd. About $300,000. W. R. McCornack, East 6th St. and Rockwell Ave., archt.

Ind., Evansville — Science Hall and Administration — Until Jan. 15, by Miller, Fullenwider & Dowling, archts., 6 North Michigan Blvd., Chicago, Ill., constructing 3 story, 70 x 120 ft. science hall, and 3 story, 70 x 174 ft. administration building, rein.-con., rein.-con. flooring, concrete foundations, Evansville College. About $250,000 and $350,000 respectively. Noted Dec. 9.

Ind., Valparaiso—Theatre and Store—Shauer & Son Co. receiving bids building 2 story, 90 x 140 ft., brick, rein.-con. flooring. About $100,000. H. L. Newhouse, 4630 Prairie Ave., Chicago, Ill., archt.

Ill., Anna—Nurses Home—E. D. Martin, state archt., Springfield, receiving bids building 2 story, 45 x 100 ft., concrete and brick, concrete foundation, for State Hospital, here. About $90,000.

Ill., Chicago—School—Worthman & Steinback, archts., 155 North Clark St., receiving bids building 1 story, 80 x 124 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on Englewood and Halstead Sts., for Englewood Business Women's College, 6233 South Halstead St. About $100,000.

Ill., Chicago—Social Center—Until Dec. 31, by Chatten & Hammond, archts., 61 East Van Buren St., building 1 story, 350 x 370 ft. with 1 story, 35 x 90 ft. wing, rein.-con., rein.-con. flooring, concrete foundation, in Columbus Park, here, for West Chicago Park Comm., West Chicago. About $250,000.

Ill., Freeport—Theatre—Rapp & Rapp, archts., 190 North State St., Chicago, opens bids about Jan. 1, remodeling theatre, at 75-79 Stephens St., here, for J. D. Dittman. About $130,000.

Wis., Gilmanton — High School — Until Jan. 28, by Secy Bd. Educ., building 2 story, 85 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $100,000. E. J. Hancock, Lyric Bldg., Eau Claire, archt. and engr.

Neb., Hastings—Memorial Hall—Hastings College receiving bids building 3 and 4 story, 80 x 190 ft. rein.-con., brick and steel, concrete foundation. About $400,000. Miller-Fullenwider & Dawling, 6 North Michigan Blvd., Chicago, archts.

Cal., Pittsburg—Bank—Until Mar. 15, by B. G. McDougal, archt., 381 Bush St., San Francisco, building 1 story, 50 x 100 ft. rein.-con., on 4th St. and R.R. Ave., for Contra Costa County Bank. About $85,000. Noted Oct. 21.

STEEL PIPE LINES AND RIVER CROSSING—SAGINAW, MICH.

Bids were received by City, Dec. 7, for construction of steel pipe lines and river crossing at Holland Ave., for connecting the distribution system, from (A) Contg. Co., 50 Church St., New York (awarded contract); (B) W. J. Meagher, City; (C) T. A. Scott, Inc., New London, Conn. The unit bids were as follows:

	A	B	C
11,000 cu.yd. preliminary dredging	$1 25		
8,000 cu.yd. deep dredging	0 37	$21,640	
300 cu.yd. excavation below grade	0 50		
6,000 cu.yd. trench excavation	2 15		
800 cu.yd. tamping	0 50	1 00	
900 cu.yd. fill	0 25	1 00	
703 ft. double 24 in. river crossing, dump sum*	33,857	35,536	[illegible]
345 ft. 30 in. river crossing, dump sum*	10,796	9,798	[illegible]
2,440 ft. 36 in. steel pipe	34,439	47,414	[illegible]
1,150 ft. 30 in. steel pipe	12,238	17,580	[illegible]
65,120 lb. c. i. pipe and specials, furnished and placed, dump sum*	9,309	8,421	[illegible]
Placing gates, dump sum*	765	1,538	[illegible]
100 cu.yd. concrete in bags	2,500	200	[illegible]
500 cu.yd. in trench	12 00	20 00	[illegible]
100 cu.yd. all other concrete	15 00	40,00	[illegible]
5,000 lb. steel reinforcing	0 08	0 06	[illegible]
Supporting tracks, dump sum*	3,600	1,500	[illegible]
Appurtenances, dump sum*	1,500	1,265	[illegible]
Extended totals	$147,290	$179,693**	$214,287

*Lump sum bid.
** Alternative; all cast iron pipe, $182,195.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Athol**—Business—L. S. Starrett, 121 Crescent St., let contract building 2 story, 50 x 105 ft., concrete and brick, rein.-con. flooring, concrete foundation, on Main St., to L. B. Taylor, 521 Main St. About $75,000.

★**Mass., Hyde Park** (Boston P. O.) — Municipal — City let contract building 2 story, 75 x 165 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Central Ave. and Winthrop St., to C. S. Cunningham & Sons Constr. Co., 80 Boylston St., Boston, $253,556. Noted Nov. 25.

★**Conn., Hartford** — School—Northwest School Dist. let contract building 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Holcomb St., to Johnson-Webster Co., 159 Washington St., $182,504. Noted Dec. 9.

★**Conn., Meriden** — Bank — Home Natl. Bank, 16 Colony St., let contract building 1 and 4 story, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Colony and Church Sts., to F. T. Ley & Co., Inc., 499 Main St., Springfield, Mass. About $350,000. Noted Sept. 30.

★**Conn., Storrs** (Eagleville P. O.)—Dormitory—Connecticut Agricultural College let contract building 3 story, 53 x 110 x 186 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on campus, to H. Wales Lines Co., 134 State St., Meriden, $248,850. Noted Nov. 25.

★**N. Y., New York**—Theatre—Victory Theatre will alter present brick and stone theatre, at 7412 13th Ave. About $75,000. Work will be done by day labor.

★**Pa., Scranton**—Theatre—Miles & Bondy, 1482 Bway., New York City, will build brick and stone, brick foundation, on Penn Ave. About $250,000. Work will be done by day labor. Noted June 10.

Federal Government Work (Continued)

★**Md., Baltimore**—School—St. Marys Industrial School, Wilken Ave., let contract building 3 story, 65 x 166 ft. stone, kompolite flooring, rock foundation, to J. J. Moylan, 538 North Calvert St. About $500,000.

★**D. C., Wash.**—School—Dist. Comrs. let contract building Woodridge-Langdon School, to W. E. Mooney, Evans Bldg., $165,111. Noted Dec. 2.

★**O., Cleveland**—Theater and Office—B. F. Keith Theater Co., 1564 Bway., New York City, let contract building 20 story, 130 x 180 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on East 17th St. and Euclid Ave., here, to Lundoff-Bicknell Co., 5716 Euclid Ave. About $3,000,000. Noted Dec. 2.

★**O., Elyria**—Theatre and Commercial—S. Jardis let contract building 1 story, 90 x 165 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Broad St., to J. Kaiser & Bros., Elyria Blk. About $100,000.

O., Lakewood (Cleveland P. O.)—High School—Bd. Educ., Warren Rd., received bids Dec. 13, building 2 story, 70 x 210 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Jackson Ave. and Clifton Blvd., from Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $287,850; Tenbusch-Parker Constr. Co., 1836 Euclid Ave., Cleveland, $288,122; Witters Co., Canton, $290,500. Noted Nov. 25.

★**Ill., Chicago**—Store and Office—J. S. Jenkins, 4607 Magnolia Ave., let contract building 2 story, 45 x 118 ft., rein.-con. and steel, rein.-con. flooring, concrete foundation, on Wilson St. and Magnolia Ave., to A. Peterson, 4607 Magnolia Ave. About $90,000.

★**Ill., Chicago**—Temple—Masonic League let masonry contract for 4 story, 125 x 2[illegible] ft., rein.-con. and stone, at 6107 Cottage Grove Ave., to P. Olson Co., 19 South La Salle St.; carpentry, to A. Miller, 2911 North Sacramento Ave. Total cost, $750,000. Noted Nov. 11.

★**Ill., Dixon**—Hospital—State Dept., Pub. Wks. & Bldgs., Springfield, let contract building 2 hospitals, here, rein.-con., concrete foundations, to Simons-Dick, Bloomington. About $400,000.

★**Ill., Elgin**—Hospital—Illinois Dept. Pub. Wks. & Bldgs., Springfield, let contract building 2 story, 50 x 150 ft., with 2 wings each, 1 story, 30 x 100 ft., rein.-con. and brick, concrete foundations, here, to Great Lakes Constr. Co., 308 South Wabash St., Chicago. About $122,000.

★**Wis., West Allis** (Milwaukee P. O.)—High School—Bd. Educ. let contract building 3 story, rein.-con., brick and tile, to Kroening Constr. Co., West Allis, $431,539.

★**Wyo., Cheyenne**—Hospital—Bd. Trustee Memorial Hospital of Laramie Co., Masonic Temple, let contract building Frances Warren Pershing Memorial Hospital, 50 x 180 ft., to A. Allison, Cheyenne. About $300,000. Noted Oct. 21.

★**Mo., Kansas City**—Hospital—St. Lukes Hospital, 45th St. and Warnall Rd., let contract building 6 story, 40 x 190 ft., rein.-con. and brick, rein.-con. flooring, to Long Constr. Co., 600 Realto Bldg. About $450,000 plus percentage basis. Noted Sept. 9.

★**Tex., Cameron**—Church—First Methodist Episcopal Church let contract building 3 story, 60 x 112 ft., concrete, brick and steel, to J. E. Johnson Constr. Co., 203 Cameron Bldg., Waco. About $80,000.

Cal., Lancaster—High Schools—Trustees Antelope Valley Union High School Dist. received bids constructing 2 rein.-con. high schools here, from J. D. Sherer, Long Beach, $152,417; Edwards, Wildey & Dixon, 515 Black Bldg., Los Angeles, 160,620; J. Simpson & Co., 619 Iron Bldg., Los Angeles, $168,628.

Federal Government Work

PROPOSED WORK

Mass., South Boston (Boston P. O.)—Steam Locomotive Crane—Spec. 4263—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids received Nov. 10, installing 50 ton steam locomotive job crane at Naval Dry Dock, here. Noted Nov. 18.

BIDS DESIRED

N. Y., New York—Roofing—Spec. 4347—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., roofing Building 120, at Navy Yard, here. Noted Dec. 16.

N. Y., S. I., Stapleton—Laundry—Until Jan. 6, by Treas. Dept., Wash., D. C., furnishing labor and certain material (except mechanical equipment) with certain materials furnishing by Government for constructing laundry building, at U. S. Marine Hospital, here. Separate bids will be received on mechanical equipment. J. A. Wetmore, supry. archt.

D. C., Wash.—Paving, Ducts, etc.—Spec. 4236—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., for paving, ducts, manholes, sewer and water lines, at Navy Yard, here. Noted June 24.

D. C., Wash.—Repairing Roof—Until Jan. 7, by Treas. Dept., repairing roof in Bureau Engraving and Printing. J. A. Wetmore, superv. archt.

Va., Alexandria—Torpedo Storage Racks—Spec. 4111—Until Dec. 29, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building torpedo storage racks at torpedo assembling plant, here.

Va., Quantico—Buildings and Improvements—Spec. 4334—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing and improving at Marine Base, here. Noted Nov. 11.

Tenn., Knoxville—Gallery—Until Jan. 5, by Treas. Dept., Wash., D. C., building in Post Office, here. J. A. Wetmore, superv. archt.

Kan., Ft. Leavenworth—Buildings—Until Dec. 30, by H. Thurber, Q.M.C., furnishing labor and material required to remodel existing buildings 55, 214 to 219 inclusive and 228 to 233 inclusive, into officers quarters, etc.; advertised in this issue. Noted Oct. 7.

Neb., Alliance—Remodeling Post Office Screen—Until Jan. 10, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, acting superv. archt.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

D. C., Wash.—Cement—Treas. Dept. received bids furnishing 750 bbl. cement for U. S. Pub. Health Serv. Hospital 32, from T. Michael, 27 New York Ave. N. E., $3,030; Natl. Mortar Co., Wash., $3,120; S. M. Frazer Co., 2 Nichols Ave., Anacostia, $3,157.

D. C., Wash.—Millwork—Treas. Dept. received bids for millwork at U. S. Pub. Health Serv. Hospital 32, from M. Wiegand, 451 Maryland Ave. S. W., $10,380; Washington Woodworking Co., 200 12th St. N. W., $14,065.

Ky., Covington — Alterations, Repairs, Plumbing, etc.—Treas. Dept., Wash., D. C., received bids Dec. 16, for alterations, etc., in Post Office, here, from J. M. Howk, 408 Madison Ave., $4,377 (105 days); D. Gordon Bldg. & Constr. Co., Burnet St. and Northern Ave., Avon, $5,000 (60 days); J. J. Creig, 20 West 9th St., $5,120 (5 months). Noted Nov. 25.

★**Ill., Bloomington** — Loading Shed — Treas. Dept., Wash., D. C., let contract installing, in Post Office, here, to G. Gildner, Bloomington, $1,274. Noted Nov. 18.

★**Ill., Chicago**—Mezzanine Floor—Treas. Dept., Wash., D. C., let contract building and repairing in Post Office, here, to Ford & Phillips Co., 723 South Wells St., $13,998. Noted Dec. 9.

★**Ill., Rockford** — Freight Elevator — Treas. Dept., Wash., D. C., let contract installing, in Post Office, here, to Otis Elevator Co., Metropolitan Bank Bldg., Wash., D. C., $5,775. Noted Dec. 9.

Tex., Port Arthur—Radio Building—Spec. 4238—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Dec. 15, constructing radio operation building and tower at Naval Radio Station, here, (1) work complete, from Hyde & Baxter, 1311 G St., N.W., Wash., D. C., (1) $6,558 (120 days), (2) add $200, (3) $8,950 (120 days), (4) $7,070 (120 days); W. F. Martens, 53 Franklin St., Rochester, N. Y., (1) $7,188 (100 days) (2) add $200 (10 days), (3) $9,699 (110-140 days); Regan Constr. Co., 2 East Lexington St., Baltimore, Md., (1) $9,988 (120 days), (2) $250, (3) $10,518 (120 days). Noted Nov. 25.

Miscellaneous

PROPOSED WORK

Pier—Portland, Me.—State Pier Comn., Augusta, having preliminary sketches prepared for pier with 1,000 ft. berth, wood piles, concrete deck, wood and steel shed. About $1,150,000. Fay, Spoffard & Thorndike, 15 Beacon St., Boston, archts and engrs. Noted Jan. 22.

Flooring — Boston, Mass. — City having plans prepared by J. J. Murphy, engr., 33 Beacon St., for concrete and steel flooring, in Frog Pond, in Boston Common. About $18,000.

Greenhouses — Boston, Mass. — City having plans prepared by Haven & Hoyt, archts., 220 Devonshire St., for 2 or 3 greenhouses in Franklin Park. About $60,000.

Golf Course, Marlboro, Mass. — See "Buildings."

Parkway and Seawall—Winthrop, Mass.—Commonwealth of Massachusetts, Metropolitan Dist. Comn., Park Div., 18 Tremont St., Boston, plans parkway extension and seawall at Winthrop Park, to connect with Revere Beach Parkway. About $300,000. Private plans.

Seawall — Winthrop, Mass. — Commonwealth of Massachusetts, Metropolitan Dist. Comn. Park Div., 18 Tremont St., Boston plans to build stone and concrete seawall at Great Head, Massachusetts Bay, here. About $35,000. Private plans.

Pier—New York, N. Y.—M. Hulbert, comr. docks, Pier "A," ft. of Battery Pl., having sketches made for 2,500 ft. pleasure pier at Brighton Beach, here. About $2,000,000. Dodge & Morrison, 160 Pearl St., engr.

Piers, Bulkheads, etc.—Hoboken, N. J.—W. and A. Fletcher Co., 1301 Hudson St., plan to extend piers, improve bulkheads and make extensive alterations. About $100,000.

Improving Water Front, etc.—Newark, N. J. — City Comn. authorized issuance of $1,250,000 bonds to improve water front and deepen Newark Bay.

Piling, Ties, etc. — Detroit, Mich. — Dept. Pub. Wks. plans to purchase 500 pieces 30 ft. x 12 in. steel sheet piling, 2,000 ft. industrial track with ties, two 6 ton gasoline locomotives, 1 pile driving machine, concrete mixer, dumping buckets, hand tools, piping, etc. About $81,000. C. W. Hubbell, City Hall, engr.

Elimination of Grade Crossing — Hamtramck, Mich. — Village and Grand Trunk Ry., McGill St., Montreal, Que., plan to depress tracks and build overhead bridge on Jos. Campau Ave. to separate railroad from street and trolley car traffic. About $100,000. G. Jerome, 1329 Majestic Bldg., Detroit, engr.

Road Machinery — Balsam Lake, Wis. — Polk Co. voted $10,000 bonds to purchase road machinery, to include 2 screening plants and possibly 2 trucks. C. W. Nystrom, comr.

Road Machinery—Chippewa Falls, Wis.—Chippewa Co. appropriated $8,000 to purchase road machinery for 1921. P. O. Lokrantz, comr.

Road Machinery — Kewaunee, Wis. — Kewaunee Co. appropriated $6,800 to purchase road machinery. M. Shaw, Algoma, comr.

Road Machinery—Montello, Wis.—Marquette Co. voted $4,000 bonds to purchase road machinery for 1921. H. Schmitz, comr.

Road Machinery—Wausau, Wis.—Marathon Co. appropriated $10,000 to purchase road machinery. J. H. Vogt, comr.

Road Machinery — Whitehall, Wis. — Trempealeau Co. voted $10,000 bonds to purchase road machinery, to include 12 wheel scrapers. E. F. Rotering, Arcadia, comr.

Miscellaneous (Continued)

Playgrounds—Davenport, Ia.—City plans to build 10 additional playgrounds. R. E. Sowistowsky, city engr.

River Terminal Improvements — Minneapolis, Minn. — City authorized $350,000 bonds for river terminal improvements, including docks, levee, trackage, etc. F. W. Cappelen, city engr.

Dam—Rapid City, S. D.—City plans election to vote on $70,000 bonds to rebuild concrete dam at Canyon Lake.

Levee—Yuma, Ariz.—City voted $50,000 bonds to improve levee on east bank Colorado River.

Stadium—Spokane, Wash.—City plans to enlarge present stadium, to have 26,000 seating capacity. Work involves 15,000 cu. yd. concrete, 106,000 cu.yd. excav., etc. About $275,000.

Seawall — Sausalito, Cal. — City Trustees plan election to vote $40,000 bonds to build seawall along east front of town.

Dams—St. John, N. B.—E. A. Smith, chn. Water Power Comn. soon receives bids building storage dams on Musquash River. Cost to exceed $100,000.

BIDS DESIRED

Ferryboat—New York, N. Y.—Until Dec. 29, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., building steel screw ferryboat.

Coal Conveyor—New York, N. Y.—Until Dec. 28, by Dept. Pub. Welfare, Municipal Bldg., furnishing and erecting coal conveyor in power house at Sea View Hospital, Richmond Boro. B. S. Coler, comr.

Lighting System—Jersey City, N. J.—Until Dec. 28, by Blvd. Comn., rebuilding lighting system on Hudson Co. Blvd. Cost to exceed $75,000.

Coal and Ash Equipment — Milwaukee, Wis. — Until Dec. 30, by Bd. Industrial Educ., Manufacturers Home Bldg., furnishing and installing coal and ash handling equipment, automatic coal scales and steel bunkers for continuation school. Cahill & Douglas, 217 West Water St., engrs. Noted April 29.

Wharf—Summerville, N. S.—Until Jan. 7, by Dept. Pub. Wks., Ottawa, repairing public wharf, here, round timber and stone fill. About $18,000. E. Lafleur, c/o Dept. Pub. Wks., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Piers and Bulkheads—College Point, N. Y.—Red Star Towing Line let contract building few small piers and bulkheads, to Robbins-Ripley Co., 50 Church St., New York City. About $55,000.

★Pavilion — Baltimore, Md. — Bd. Park Comrs., Madison Ave., let contract building 1 story, 67 x 135 ft. concrete and terra cotta pavilion, at Clifton Park, to Hick, Tase & Morris Inc., 106 West Madison St., $49,450.

★Heating and Plumbing System — Dayton, O.—City Comrs. let contract installing heating and plumbing system in buildings on city workhouse farm to W. Haas Plumbing Co., 429 East 3d St., $29,875.

★Granite Blocks—Detroit, Mich.—City let contract furnishing 230,000 granite blocks, to Wisconsin Granite Co., 133 West Washington St., Chicago, $107 per 1,000, total cost, $23,610.

★Hydrants, etc. — Detroit, Mich. — Fire Comn. let contract furnishing f.o.b. Detroit, 300 double nozzle steamer fire hydrants and 300 ft. 6 in. water gates, to Russell Wheel & Fdry. Co., Chene St. and Belt Line Ry., $135 and $31.50 respectively, total cost $49,950.

Ties, Cable, etc.—Detroit, Mich.—Street Ry. Comn., Murphy Bldg., let contracts furnishing 8,800 twin steel ties, to International Steel Tie Co., 16702 Waterloo Rd., Cleveland, O., $8.45 each, total $74,360; 30 mi. of .365 in. hard drawn trolley wire, to Detroit Copper & Brass Rolling Mills Co., Clark Ave. and Wabash Ry., $16.625 per cwt.; 5,000 ft. 1,000,000 C. M. bare stranded copper cable, 61 strands, and 2,500 ft. of 500,000 C. M. 37 stranded, to Standard Underground Cable Co., 1444 David Whitney Bldg., $18.28 per cwt.

Paving Materials — Minneapolis, Minn. — City received bids furnishing 90,000 sq.yd. 3½ in. yellow pine creosoted paving blocks, from Midland Creosoting Co., 511 Plymouth Bldg., $2.84½ per sq.yd. Rodd Co., Century Bldg., Pittsburgh, Pa., $3.85; Indiana Zinc Creosoting Co., 111 West Washington St., Chicago, $2.98; 125,000 vitr. paving brick, from Perrington Paving Brick Co., Galesburg, Ill., $42.35 per M. R. R. Colburn, 1212 Builders Exch. Bldg., $44.10. Streator Clay Mfg. Co., 713 Guardian Life Bldg., St. Paul, $44.32; 1,770 tons asphaltic cement, (1) tank cars, (2) packages, from Asphalt Sales Corp., 128 North Wells St., Chicago, (1) $27.15, (2) $36.95, Standard Oil Co., Constable Hook, N. J., (1) $32.50, (2) $40, Minnesota Rd. Equipment Co., 708 Plymouth Bldg., (1) $28.35, (2) $37.35; 2,900 tons refined tar, from Barrett Co., 1 19th Ave. S., Nos. 4 and 5, $0.11 per gal., delivered on street, $0.135, No. 6, $0.145 per gal., delivered, $0.165; 1,000 tons paving pitch, from Barrett Co., 1 19th Ave. S., $23.70 per ton; 55,000 bbl. Portland Cement from Minneapolis Builders Supply Co., 315 Lumber Exch., $2.76, Thompson Yards, Inc., 1645 Hennepin Ave., $2.82. P. G. Speakes & Co., 2845 47th Ave. S., $3.76.

★Dams—St. John, N. B.—Water Power Comn. let contract building concrete dams on Musquash River, 12 mi. west of here, to New Brunswick Constr. Co., St. John. About $248,000.

Applications before the Federal Power Commission, Washington, D. C., from November 20 up to and including November 27.

95. Utica Mining Co., 1128 Merchants Exchange Bldg., San Francisco, Cal.. License for power development on Stanislaus River.

96. San Joaquin Light & Power Corp., Fresno, Cal. License for dam, reservoir, conduit, power house, and transmission line, San Joaquin River, Fresno and Madera Counties, Cal., for public utility.

97. Nevada California Power Co., c/o W. L. Huber, First National Bank Bldg., San Francisco, Cal. License for two conduits diverting Warren Creek and Slate Creek into Leevining Creek; two dams and power houses on Leevining Creek, Mono County, Mono National Forest, Cal. On Bishop Creek, near Bishop, Inyo County, Cal., in the Inyo National Forest and 60 mi. from the Leevining Creek projects are two projects, Plant A and Plant No. 1, for public utility.

98. City of Los Angeles, Department of Public Service, 603 Knickerbocker Bldg., Los Angeles, Cal. Preliminary permit for five dams and reservoirs with tunnels and conduits leading to four power houses on the South and Middle Forks and on Kings River, Fresno County, Cal., for public utility.

99. Western States Gas & Electric Co., H. M. Byllesby, Engineers and Managers, Stockton, Cal. License for conduit, power house, and transmission line, Trinity National Forest, in Trinity and Humboldt Counties, Cal., for public utility.

100. Flathead Valley Electric Co., Old National Bank Bldg., Spokane, Wash. License for small dam at lake outlet, use tunnel dug by U. S. R. S. power house, and transmission lines. Flathead River at Lake outlet, Flathead County, Mont., for public utility.

101. Catawba Valley Light & Power Co., c/o H. L. Millner, Morganton, N. C., preliminary permit for dam, conduit, power house, and transmission lines, Wilson Creek, Caldwell County, N. C.

102. San Joaquin Light & Power Corp., Fresno, Cal. Preliminary permit for dams, reservoirs, diversion conduits, and power house on North Fork, Kings River, Fresno County, Cal., for public utility.

103. Frank B. Pattee, Samuel Bernhard, and J. T. Ross, c/o Edward R. Solinsky, Call Bldg., San Francisco, Cal. Preliminary permit for dam, reservoir, 11¾-mi. conduit, power house, and 100-mi. transmission line. North Fork, Stanislaus River, T. 6 N., R. 16 E., to T. 5 N., R. 15 E., M. D. M., Calaveras and Tuolumne Counties, Cal.

104. Home Colony, (An Association of Citizens), L. R. Ewart, President, Cody, Wyo. License for small plank dam, 400-ft. conduit, and small power house, Kitty Creek, Park County, Wyo., for small community.

105. Southern California Edison Co., c/o G. C. Ward, Edison Bldg., Los Angeles, Cal. Preliminary permit for seven dams and reservoirs, six diversion dams, twelve conduits, and five power houses in headwaters of San Joaquin River in general area, T. 4 S., to T. 9 S., and R.23 E., to R. 28 E., Madera and Fresno Counties, Cal., for public utility.

106. Mrs. Nellie P. Bean, care of Cotton & Wilson, Post Building, Idaho Falls, Idaho. Preliminary permit for dam 9 ft. high, 10-ft. wooden pipe-line to power house. On Warm River between Mesa and Warm River, Fremont County, Idaho, for public utility.

107. Butte-Jardine Metals Mines Co., care of Charles R. Leonard, Butte, Mont. License for transmission line across part of Deer Lodge National Forest, T. 6 N., R. 8 to 9 W., Deer Lodge County, Mont., to furnish power to Company's mine.

108. Wisconsin-Minnesota Light & Power Co., care of Charles McPherson, 1107 Grand Rapids Savings Bldg., Grand Rapids, Mich. License for dam and reservoir at Forks of Chippewa River, Sawyer County, Wis., for public utility.

109. Joseph B. Leighton, Miles City, Mont. Preliminary permit for diversion dam, conduit, and power house, Yellowstone River, at Buffalo Rapids, near Miles City, Mont., for public utility.

110. Southern California Edison Co., Edison Bldg., Los Angeles, Cal. License for five dams, four reservoirs and conduits, two power houses on headwaters South Fork San Joaquin River, Fresno County, Cal., for public utility.

111. Southern California Edison Co., Edison Bld., Los Angeles, Cal. Preliminary permit for high dam and large storage reservoir near Lee Ferry, Col. River — Three power developments as follows: From Marble Canyon Unit Dam to Point near Mouth of Little Col. River, about 1,240,000 hp.; bright Angel Unit, from mouth of little Col. River to Kanat Creek, a distance of 85 mi., about 1,090,000 hp.; Diamond Creek Unit; from Knab Creek to Western Boundary of Ariz. a dist. of 45 mi., about 1,240,000 hp. for public utility in eight Western states.

112. City of Everett, W. H. Clay, Mayor, Everett, Snolionish Co., Wash. Preliminary permit for diversion dam and tunnel to carry 500 c.f.s. from Sultan River to Lake Chaplain, used as storage reservoir, 84 in. conduit from Lake Champlain to power house on Sultan River, in general locality T 28 NR 8R—Snolionish Co., Wash., for public utility.

113. Great Basin Power Co., Walker Bank Bldg., Salt Lake City, Utah. Preliminary permit for dam and reservoir, north Fork, Duchesne River in Sect. 22, 23, 26, and 27, T 2 N, R. 9W Uintah, Special Base and Meridian conduit, to power house in Sect. 19 T. IN R 8W Diversions of West Fork Duchesne River and Wolf Creek by conduit to same power house for public utility.

114. Mt. McKinley Gold Placers, Tanana, Alaska. Preliminary permit for power development on McKinley River, Wonder Lake, Kantishna Mining District, Alaska, for mining purposes.

115. W. H. H. Stineman and Alfred H. Quick, Gunther Bldg., Baltimore, Md. Preliminary permit for dam at High Island above Chain Bridge and at Plummer Island, 4 mi. below Great Falls on Potomac River, D. C., for public utility.

116. Southern Sierras Power, care of W. L. Huber, First National Bank Bldg., San Francisco, Cal. License for diversion dam, conduit, and power house, Owens River, T. 5S., R. 31 E., M.D.M., Mono County, Cal. for public utility.

117. Southern Sierras Power Co., care of W. L. Huber, First National Bank Bldg., San Francisco, Cal. License for transmission line from power house described in Project No. 116, for distance of 9 mi., to connect with existing transmission system of applicant, at point in Inyo County, Cal., for public utility.

118. Lloyd E. Gandy, 803 Sherwood Bldg., Spokane, Wash. Preliminary permit for dam, reservoir, and power house, Spokane River at Fort George Wright, Wash.

119. Frank L. Ballaine, care of James A. Haight, 702 Haight Bldg., Seattle, Wash. Preliminary permit for diversion dam, 11-mi. conduit with two power houses, one at point 6½ mi. below dam, and second 4½ mi. below first. On Kenai River above Skilak Lake in Chugach National Forest, 38 mi. from Seward, Alaska, for pulp and paper mill and public utility.

120. Southern California Edison Co., Edison Bldg., Los Angeles, Cal. Preliminary permit for dam, conduit, and power house on San Joaquin River below mouth of Big Creek, Fresno County, Cal., for public utility.

121. James B. Girand, care of Parsons, Klapp, Brinckerhoff & Douglas, 84 Pine St., New York City, N. Y. License for power development in Colorado River, at Diamond Creek, Ariz., for railroad electrification and public utility.

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Jan. 3	Osakis, Minn.	Dec. 30
Jan. 10	Hartford, Conn.	Dec. 2
Jan. 10	Dayton, O.	Dec. 23
Jan. 17	Rush City, Minn.	Dec. 30
Feb. 8	North Branch, Minn.	Dec. 30
Feb. 15	Pine Island, Minn.	Dec. 30

SEWERS

Jan. 4	Detroit, Mich.	Dec. 30
Jan. 4	Emporia, Kan.	Dec. 30
Jan. 5	Lima, O.	Dec. 2
Jan. 5	Mansfield, O.	Dec. 16
Jan. 11	North Branch, Minn	Dec. 9
Feb. 8	North Branch, Minn.	Dec. 30

BRIDGES

Jan. 6	Miami, Fla. Adv. Dec. 2 to 30.	Dec. 2
Jan. 7	Jacksonville, Fla.	Dec. 2
Jan. 10	Ellsworth, Kan.	Dec. 23
Jan. 11	Burlington, Ont.	Dec. 23
Jan. 11	Houston, Va.	Dec. 30
Jan. 11	Hamilton, Ont.	Dec. 16
Jan. 17	Burlington, Ia.	Dec. 16
Jan. 20	Springfield, Mass. Adv. Dec. 2 to 30.	Dec. 30
Jan. 28	Missouri	Dec. 23
Feb. 7	Bainbridge, Ga	Nov. 25
Mar. 1	Ontario	Nov. 4

STREETS AND ROADS

Jan. 3	Washington	Dec. 30
Jan. 4	Michigan	Dec. 23
Jan. 4	Indiana	Dec. 23
Jan. 4	Portland, Ore.	Dec. 30
Jan. 4	San Luis Obispo, Cal.	Dec. 31
Jan. 5	Indiana	Dec. 23
Jan. 5	Colorado Springs, Col.	Oct. 21
Jan. 5	Austin, Minn.	Dec. 16
Jan. 6	Missouri	Dec. 9
Jan. 6	Concordia, Kan.	Dec. 16
Jan. 6	San Antonio, Tex.	Dec. 23
Jan. 6	Michigan	Dec. 23
Jan. 7	Michigan	Dec. 23
Jan. 7	Hutchinson, Kan.	Dec. 16
Jan. 7	Concordia, Kan.	Dec. 23
Jan. 10	Ontario	Dec. 23
Jan. 10	Stockton, Kan.	Nov. 18
Jan. 10	Louisiana	Dec. 30
Jan. 11	Emporia, Kan.	Dec. 16
Jan. 11	Rock Hill, S. C.	Dec. 23
Jan. 12	Florida	Dec. 23
Jan. 15	Nevada	Dec. 9
Jan. 17	Nashville, Tenn.	Dec. 30
Jan. 17	Tennessee	Dec. 30
Jan. 21	Missouri	Dec. 23
Jan. 24	Missouri	Dec. 30
Jan. 27	Missouri	Dec. 9
Jan. 28	Missouri	Dec. 23
Feb. 1	Pineville, W. Va.	Dec. 16
Mar. 1	Ontario	Dec. 2
Mar. 30	Westboro, Ont.	Nov. 11

EXCAVATION AND DREDGING

Jan. 4	Granite Falls, Minn.	Dec. 30
Jan. 5	New Madrid, Mo.	Dec. 30
Jan. 5	Rockwell City Ia.	Dec. 23
Jan. 7	Osage, Ia.	Dec. 23
Jan. 7	Bemidji, Minn.	Dec. 30
Jan. 7	Wasseca Minn.	Dec. 30
Jan. 12	Muscatine, Ia. Adv. Dec. 30.	Dec. 30
Feb. 15	L'Original, Ont.	Dec 30

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Jan. 3	Bartow, Fla.	Dec. 30
Mar. 1	La Salle, Ill.	Dec. 23

BUILDINGS

Jan. 3	Pittsburgh, Pa.	Dec. 30
Jan. 4	Greeley, Col.	Nov. 25
Jan. 4	Emporia, Kan.	Dec. 2
Jan. 4	Union Grove, Wis.	Dec. 2
Jan. 10	Cleveland, O.	Dec. 23
Jan. 10	Norfolk, Neb.	Dec. 30
Jan. 15	Fergus Falls, Minn.	Dec. 9
Jan. 15	Orange, Conn.	Dec. 23
Jan. 15	Evansville, Ind.	Dec. 23
Jan. 15	Iron Belt, Wis.	Dec. 9
Jan. 15	Prince Frederick, Md.	Dec. 9
Jan. 15	St. Louis, Mo.	Dec. 9
Jan. 15	Bedford, O.	Dec. 30
Jan. 17	Spooner, Wis.	Dec. 16
Jan. 18	Renville, Minn.	Dec. 30
Jan. 18	Harrold, S. D.	Dec. 30
Jan. 19	Buffalo, N. Y. Adv. Dec. 2 to 23.	Dec 2
Jan. 19	Buffalo, N. Y.	Dec. 9
Jan. 19	Buffalo, N. Y.	Dec. 30
Jan. 20	Lubbock, Tex.	Dec. 16
Jan. 28	Gilmanton, Wis.	Dec. 23
Jan. 24	McIntosh, S. D.	Dec. 30
Feb. 1	Albuquerque, N. M.	Dec. 30
Feb. 1	Channing, Mich.	Dec. 30
Feb. 8	Prospect, O.	Dec. 30
Feb. 8	Malta, Mont.	Dec. 30
Feb. 15	Springfield, O.	Dec. 30
Feb. 15	El Paso, Tex.	Dec. 2
Mar. 1	Duluth, Minn.	Dec. 2
Mar. 15	Pittsburg, Cal.	Dec. 23

FEDERAL GOVERNMENT WORK

Jan. 5	Concrete Roads, etc.—Spec. 4236—Wash., D. C.	Dec. 16
Jan. 5	Roofing—Spec. 4347—New York, N. Y.	Dec. 23
Jan. 5	Paving, Ducts, etc.—Spec. 4236—Wash., D. C.	Dec. 23
Jan. 5	Buildings and Improvement Spec. 4334—Quantico, Va.	Dec. 23
Jan. 5	Gallery—Knoxville, Pa.	Dec. 23
Jan. 5	Guard House, General Service Building, etc. — Spec. 4334—Quantico, Va.	Dec. 30
Jan. 5	Radio Building—Spec. 4351—Astoria, Ore.	Dec. 30
Jan. 5	Crane Run For Steel Storage—Spec. 4251 — Brooklyn, N. Y.	Dec. 30
Jan. 6	Laundry—Stapleton, S. I., N. Y.	Dec. 23
Jan. 7	Repairing Roof — Wash., D. C.	Dec. 23
Jan. 7	Dredging—Norfolk, Va. Adv. Dec. 9 and 30	Dec. 9
Jan. 7	Fire Service Mains —New Orleans, La.	Dec. 16
Jan. 10	Remodeling Post Office Screen—Alliance, Neb.	Dec. 23
Jan. 10	Dredging—New Orleans, La. Adv. Dec. 9 to 30	Dec 9
Jan. 10	Mailing Vestibule, Extending Driveway, etc. — Grand Rapids, Mich	Dec. 30
Jan. 11	Remodeling Custom House and Court House—El Paso, Tex.	Dec. 30
Jan. 12	Electric Traveling Bridge Crane—Spec. 4326—Puget Sound, Wash.	Dec. 16
Jan. 12	Quarters — Spec. 4344 — Tybee Island, Ga.	Dec. 30
Jan. 17	Dredging—New York, N. Y. Adv. Dec. 16 to 30.	Dec. 16
Jan. 17	Return Flue Boilers—St. Louis, Mo. Adv. Dec. 23 and 30	Dec. 30
Jan. 18	Stern Wheel — Memphis, Tenn. Adv. Dec. 23 and 30.	Dec. 30
Jan. 20	Dredging—Galveston, Tex. Adv. Dec. 23 and 30	Dec. 30
Jan. 20	Constructing Steel Hull — Cincinnati, O. Adv. Dec. 30.	Dec. 30
Jan. 27	Post Office—Santa Fe, N. M.	Dec. 30
Mar. 15	Post Office—Joplin, Mo.	Dec. 9

MISCELLANEOUS

Jan. 4	Wall—Seneca Falls, N. Y. Adv. Dec. 9 to 30.	Dec. 3
Jan. 4	Transmission Line—Prescott, Ia.	Dec. 30
Jan. 4	Crib—Trenton, N. J. Adv. Dec. 30.	Dec. 30
Jan. 5	Fan, Motor, Heaters, etc.—Dannemora, N. Y.	Dec. 16
Jan. 5	Fender Rack and Ice Breakers — Perth Amboy, N. J.	Dec. 16
Jan. 6	Asphalt Wearing Surface Sand, etc. — New York, N. Y.	Dec. 30
Jan. 6	Clay, Cement and Broken Stone, etc. — New York, N. Y.	Dec. 30
Jan. 6	Plumbing and Draining — Brooklyn, N. Y.	Dec. 30
Jan. 7	Cast Iron Pipe, Valves, etc.—Douglas, Wyo.	Dec. 30
Jan. 7	Plumbing and Draining — New York, N. Y.	Dec. 30
Jan. 7	Wharf—Summerville, N. S.	Dec. 23
Jan. 10	Filter Sand — Hartford, Conn.	Dec. 2
Jan. 10	Culverts—Ontario	Dec. 30
Jan. 11	Motors and Pumps—Sacramento, Cal.	Dec. 2
Jan 12	Laundry Equipment, Binghamton, N. Y. Adv. Dec. 30.	Dec. 30
Jan. 18	Engine and Pump—Okeechobee, Fla. Adv. Dec. 16 to 30.	Dec. 16
Jan. 26	Wall—Chesterville, Ont	Nov. 25

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. J., Avon—City plans to build pumping plant. About $60,000. J. Thomson, comr.

S. C., Seneca—City voted $160,000 bonds to build waterworks and sewerage systems. W. F. Austin, chn. Comn. Pub. Wks. Noted Dec. 9.

Wis., Manitowoc—City passed ordinance to install water mains in Hamilton, Buffalo and Columbus Sts. Cost between $18,000 and $20,000. A. H. Zander, city engr.

Mont., Helena—City plans to lay 7 mi. water mains. About $200,000. A. W. Verharen, city engr.

Cal., Rafael—Marion Co. Municipal Water Dist. voted $500,000 bonds to finance following improvements: Reservoir near Phoenix Lake, cost $20,000; pipe line from state highway to Mill Valley, $20,000; pipe line from Alto to Belvedere and Tiburon, $127,500; new reservoir from Laguna Creek to Cascade intake, $14,000; pipe renewals

Waterworks (Continued)

and extensions in San Rafael, $52,000; San Anselmo and Ross, $39,500; Mill Valley, $37,000; Corte Madera, $7,500; Larkspur, $5,500; San Quentin, $3,000; outside incorporated towns, $25,000.

Que., Levis—Town soon receives bids building waterworks system. About $177,000.

BIDS DESIRED

Minn., North Branch—Until Feb. 8, by A. Nordstrom, city clk, building waterworks system, including deep well pump and tower tank. About $40,000. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs.

Minn., Osakis—Until Jan. 3, by C. G. Millard, village recdr., building and equipping pumping station. About $10,000. C. L. Pillsbury Co., 1206 2nd Ave. S., Minneapolis, engrs. Noted Oct. 28.

Minn., Pine Island—Until Feb. 15, by H. H. Billings, city clk., extending water mains. Alternate bids will also be received on steel or concrete reservoir. About $30,000. Noted Oct. 7.

Minn., Rush City—Until Jan. 17, by J. F. Sommers, city clk., building 4 wells and suction mains, involving 135 ft. 6 in. c.i. suction pipes, 1,000 lb. c.i. T crosses. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs. Noted Dec. 2.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Ia., Mason City—City will build new reservoir and wells and deepening present wells. About $300,000. Work will be done by day labor. Noted Nov. 18.

★Cal., Hemet—Hemet Water Co. let contract lining two 100 x 250 ft. tunnels with concrete, and building 2 rein.-con. pipe syphons, one 435 ft. 39 in. long, other 1,050 ft. 42 in. long, to Bent Bros., Central Bldg., Los Angeles. About $20,000.

Sewers

PROPOSED WORK

N. C., Belhaven—City will sell $60,000 bonds, Jan. 20th, to build sewers. D. S. Smith, clk.

S. C., Seneca—See "Waterworks."

Ill., Benton—City passed ordinance to build sewers, manholes, etc., throughout entire city, involving 110,156 ft. 6-30 in. vitr. pipe, 86,705 cu.yd. earth and 1,650 cu.yd. rock trencing, 248 brick manholes. About $248,671. C. B., Mautz, Benton, engr.

Wis., Kimberly—Village having plans prepared for new sewerage system, sewage disposal plant and septic tanks. About $100,000. F. A. C. Smith, Colby-Abbott Bldg., Milwaukee, engr.

Ia., Centerville—City authorized $28,000 bonds to build sewers in various streets. Engineer not announced.

S. D., Elk Point—City having plans prepared for sewerage system, involving 23,800 ft. sewer tile, 5,800 ft. outlet tile pipe and sewage pumping plant. About $35,000. T. H. Johnson, 319 Iowa Bldg., Sioux City, engr.

Tex., Austin—City defeated $55,000 bond issue to build sewerage system. New election will be held soon. C. E. Leonard, city engr. Noted Nov. 18.

Cal., Palo Alto—See "Streets and Roads."

Cal., Visalia—City voted $100,000 bonds to extend sewers.

Ont., Ingersoll—City plans to build sewerage system. About $100,000.

Ont., Walkerton—City having plans prepared for building storm sewers in Victoria, Jackson and Colborne Sts. About $45,000. Address A. MacNab, mayor.

BIDS DESIRED

Mich., Detroit—Until Jan. 4, by Dept. Pub. Wks., building 9,982 ft. of 14 ft. sewer in Dailey and Hatfield Aves., Joy Rd., Lawton and Atkinson Aves. from Livernois to Linwood Aves., also 6,000 ft. of 10½ ft. sewer in Six Mile Rd. from Sta. 60 x 100 to Connors Creek, brick, concrete block, monolithic concrete or combination of same. C. W. Hubbell, City Hall, engr.

Minn., North Branch—Until Feb. 8, by A. Nordstrom, city clk., building 25,000 ft. 8-12 in. vitr. sewers in various streets. About $30,000. Druar & Milinowski, 512 Globe Bldg., St. Paul, engrs.

Kan., Emporia—Until Jan. 4, by city, building 3 mi. 8-15 in. vitr. pipe in southwest section of city, involving 15,846 lin.ft. earth trenching, manholes, etc. A. J. Smith, Emporia, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Ossining—C. F. Rattigan, supt. State Prisons, Capitol, Albany, let contract building sewerage and water supply systems, here, to Carroll Contg. Co., Inc., 103 Park Ave., New York City, $313,392. Noted Dec. 16.

★N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., let contract building temporary sanitary outlet sewer in Cromwell Ave., etc., to Richfield Constr. Co., 280 Madison Ave., New York City, $51,968. Noted Dec. 9.

★Wis., Elkhorn—City let contract excavating and laying .9 mi. 8-10 in. vitr. sewers, etc., in Wisconsin St., to F. P. Cayll, Main St., Waukesha. About $20,000.

★Wis., Ft. Atkinson—City let contract excavating and laying 8,700 ft. 8-10 in. vitr. pipe sewer and building necessary manholes in Main St., to G. W. Leisman, 313 Grant St. About $25,000.

★Minn., Little Falls—City will build trunk sewers in Dist. 2, involving 5,250 ft. 15-20 in. pipe, 13 manholes, 330 ft. 8 in. vitr. pipe connections, etc. Work will be done by day labor. Former bids rejected. Noted Nov. 18.

★Tex., Austin—City let contract building storm sewers in 4th, 5th, 6th, 7th, 10th, Travis, Austin, Indiana and Ohio Sts., involving 8,450 ft. segmental and 9,327 ft. tile block pipe, to C. H. Foley, 1639 Elizabeth St., Wichita Falls, $200,885.

Cal., Los Angeles—City received bids Dec. 13th building disposal plant and outfall sewer in Fish Harbor, San Pedro, involving 2,700 ft. vitr. pipe, from R. D. Wood, Los Angeles, 261 tons class "B" pipe, $86.50, 13 tons class "D," $86, 3.54 tons class "D" special pipe, $172, 460 tons class "D" Metropolitan type "A," $127 per ton; Amer. Cast Iron Pipe Co., Natl. Bank Bldg., $22,495; U. S. Cast Iron Pipe Co., 215 West 7th St., $23,500.

Bridges

PROPOSED WORK

Mass., Allston (Boston P. O.)—City of Boston having sketches made for 140 ft. concrete and steel bridge, 90 ft. wide on Cambridge St. About $175,000.

Mass., Boston—State Bridge Comn. rejected bids and will receive new bids in spring building 730 ft. rein.-con. and steel bridge between Newponset Ave. here and Hancock St., Quincy., About $600,000. J. R. Rablin, 8 Tremont St., engr.

Ia., Rockdale (Dubuque P. O.)—Dubuque Co. plans to build 600 ft. concrete viaduct over Rockdale-Illinois Central R.R. tracks. About $150,000. G. A. Blunt, co. engr.

Missouri—State Highway Dept., Greenville, received no bids Dec. 17, building rein.-con. skew slab superstructure and 1 mass concrete pier, over Stevens Branch, on Sta. 11 plus 51, cost $4,632; I-beam superstructure, on Sta. 652 plus 50, involving 9.3 cu.yd. Class B and 45.7 cu.yd. Class C concrete, 2,560 lb. reinforcing and 5,216 lb. fabricated structural steel, $2,526; pony truss superstructure, over Clarks Creek, on Sta. 485 plus 35, 56.7 cu.yd. Class A and 130.9 cu.yd. Class B concrete, 19,350 lb. reinforcing and 52,400 lb. fabricated structural steel, $15,365; rein.-con. slab superstructure and 2 mass concrete piers over Clarks Creek, on Sta. 208 plus 37.5, $8,080; beam span approach to main span and 5 concrete pile bents, over St. Francois River, on Sta. 645 plus 55.5, $8,019. All above on Federal Aid Project 129, Wayne Co. Noted Oct. 7.

Missouri—State Highway Dept., Jefferson City, plans to build rein.-con. skew slab superstructure on Sta. 824 plus 40, involving 1.8 cu.yd. Class A and 57.6 cu.yd. Class B concrete, 4,350 lb. reinforcing steel; rein.-con. skew through girder superstructure and 3 mass concrete piers, over Hog Creek, on Sta. 1237 plus 00, 309 cu.yd. Class B and 101 cu.yd. Class C concrete, 39,970 lb. reinforcing steel; rein.-con. slab superstructure and 1 mass concrete pier, over West Branch Piney Creek, on Sta. 368 plus 75, 3.3 cu.yd. Class A, 38.5 cu.yd. Class B and 34.8 cu.yd. Class C concrete, 4,300 lb. reinforcing steel; rein.-con. slab superstructure and 1 mass concrete pier, over Indian Creek, on Sta. 1339 plus 00, 3.9 cu.yd. Class A, 87.3 cu.yd. Class B and 24 cu.yd. Class C concrete, 7,980 lb. reinforcing steel; rein.-con. slab superstructure and 1 mass concrete pier, over Piney Creek, on Sta. 458 plus 85, 3.9 cu.yd. Class A, 95.4 cu.yd. Class B and 11.9 cu.yd. Class C concrete, 7,630 lb. reinforcing steel; rein.-con. skew slab superstructure and 1 mass concrete pier, on Sta. 330 plus 4[illegible] cu.yd. Class A, 77 cu.yd. Class B and [illegible] cu.yd. Class C concrete, 5,510 lb. reinfor[illegible] steel; rein.-con. slab superstructure a[illegible] mass concrete piers, over Piney Creek, Sta. 615 plus 00, 5.7 cu.yd. Class A, [illegible] cu.yd. Class B and 29.3 cu.yd. Cla[illegible] concrete, 11,050 lb. reinforcing steel; r[illegible] con. slab superstructure and 2 mass [illegible]crete abutments, on Sta. 525 plus 30, [illegible] cu.yd. Class A, 20.5 cu.yd. Class B [illegible] 58.4 cu.yd. Class C concrete, 2,480 lb. r[illegible]forcing steel; rein.-con. slab superstruc[illegible] on Sta. 1053 plus 75, 2.1 cu.yd. Class [illegible] and 93.4 cu.yd. Class B concrete, 7,200 [illegible] reinforcing steel; rein.-con. skew throu[illegible] girder superstructure and 3 rein.-con. pie[illegible] over Piney Creek, on Sta. 885 plus [illegible] 333 cu.yd. Class B and 137 cu.yd. Class [illegible] concrete, 45,800 lb. reinforcing steel; rein[illegible]con. slab superstructure on Sta. 616 plus 30, 2.1 cu.yd. Class A and 64.6 cu.yd. Cla[illegible] B concrete, 5,530 lb. reinforcing steel; rein[illegible]con. skew slab superstructure, on St[illegible] 1225 plus 25, 1.5 cu.yd. Class A, 13.4 cu.y[illegible] Class B and 27.5 cu.yd. Class C concre[illegible] 1,790 lb. reinforcing steel; rein.-con. slab superstructure and 2 mass concrete piers over Potters Creek, on Sta. 634 plus 0[illegible] 6.7 cu.yd. Class A, 157.9 cu.yd. Class B and 43.3 cu.yd. Class C concrete, 15,090 lb. reinforcing steel; rein.-con. slab superstructure and 2 mass concrete piers, over Berry Branch, on Sta. 773 plus 80, 5.7 cu.yd. Class A, 78.2 cu.yd. Class B and 50.1 cu.yd. Class C concrete, 9,260 lb. reinforcing steel. All above bridges on St. Louis-Springfield Rd., Federal Aid Project 90, Texas Co.

Tex., Austin—City defeated $25,000 bond issue to build bridges. New election will be held soon. C. E. Leonard, city engr. Noted Nov. 18.

Cal., Visalia—City voted $10,000 bonds to build concrete bridges.

BIDS DESIRED

Mass., Neponset (Boston P. O.)—Until Jan. 19, by Commonwealth of Massachusetts, Metropolitan Dist. Comn., 118 Tremont St., Boston, building 700 ft. bridge over Neponset River, involving 9,660 cu.yd. concrete, 1,600 cu.yd. stone masonry, 110,000 lin.ft. wood piling, 1,460 sq.yd. granite block paving, 35,000 ft. lumber, 410 tons stone and gravel ballast, 11,500 cu.yd. dredging, 8,000 cu.yd. earth approach and fill. Work will also include removal present bridge. Noted May 13.

Mass., Springfield—Until Jan. 20, by Rd. City Suprvs., Administration Bldg., furnishing, fabricating, erecting and painting the structural steel and fences for Indian Orchard Bridge, over Chicopee River between here and town of Ludlow, Hampden Co.; advertised in this issue.

Va., Houston—Until Jan. 11, by State Highway Comn., Richmond, building 540 ft. bridge over Bannister River, here.

Tennessee—See "Streets and Roads."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. H., Portsmouth—Piscataqua River Bridge Comn., City Hall, received bids Dec. 14 building superstructure for bridge over Piscataqua River between here and Kittery, Me., from Amer. Bridge Co., 120 Franklin St., Boston, $619,000; Bethlehem Steel Bridge Corp., 141 Milk St., Boston, $634,700. Noted Dec. 2.

Fla., White Springs—State Highway Dept., Tallahassee, received bid building steel truss, 228 ft. center to center pins on rein.-con. abutments, with 20 ft. clear roadway, from Pensacola Shipbuilding Co., Blount Bldg., Pensacola. About $57,100. Noted Nov. 18.

★Mich., Detroit—Wayne Co. Rd. Comrs., 312 Co. Bldg., let contract sinking pneumatic caissons through earth to rock a distance approxmiately 80 ft., furnishing all labor and material except cement for 4 caissons and substructure for double leaf bascule type bridge (substructure and foundations only included in this job), to Missouri Valley Bridge & Iron Co., Kansas City, Mo., $358,280. Noted Dec. 9.

Wis., Racine—City received bids Dec. 18, building 343 ft. steel and concrete double leaf bascule bridge, on State St., from Greiling Bros., 100 Blk. East Walnut St., Green Bay, $339,000; E. E. Gillen Co., 120 Wisconsin St., Milwaukee; A. Green Constr. Co., 154 North Pearl St., Green Bay, $381,500. Ketler-Elliott Co., 3153 South California Ave., Chicago, bid on superstructure only, $254,155. Noted Dec. 2.

★Minn., St. Paul—City let contract building concrete bridge on Cherokee Heights Blvd., to McManis & Tarnowski, 484 Endicott Bldg., $15,998. Noted Dec. 9.

Bridges (Continued)

Kan., Columbus—Cherokee Co., received bids building one 150 ft. rein.-con. arch bridge; also three 50 ft. girder spans, (alternate design), on Federal Aid Project 71, both designs for 18 ft. roadway, from Koss Constr. Co., 2818 5th St., Des Moines, (girder plan) $40,576, (arch plan), $45,381. Noted Nov. 18.

★**Tex., Ft. Worth**—Tarrant Co. let contract building bridge, to have 2 steel spans on concrete piers and abutments, over Trinity River on White Settlement Rd., also over Trinity River on Lake Worth Dam Rd., to Austin Bros. Bridge Co., 1815 Coombs St., Dallas, $42,700 each. Noted Nov. 11 and Dec. 2.

Tex., Nacogdoches—Nacogdoches Co. received bids Dec. 13, building (1) steel span bridges with wooden flooring on concrete piers on Highway 35, Garrison Rd., involving 821 cu.yd. Class "A" concrete, 425 cu. yd. wet and 425 cu.yd. dry structural excav., 18,400 ft. untreated lumber, 248,120 lb. structural and 36,123 lb. reinforcing steel, etc., (2) bridges on Highway 21, Cherino Rd., 1,188 cu.yd. Class "A" concrete, 482 cu.yd. wet and 482 cu.yd. dry structural excav., 25,510 ft. flooring, 344,740 lb. structural and 59,041 lb. reinforcing steel, etc., (3) bridges on State Highway 4, Douglas Rd., 577 cu.yd. wet and 577 cu.yd. dry excav., 23,410 ft. untreated timber, 1,200 cu.yd. Class "A" concrete, 375,644 lb. structural and 68,808 lb. reinforcing steel, etc., from Highway Iron Products Co., Legionere, Ind., represented by W. B. Hill and C. V. Joseph, (1) $56,385, (2) $85,479, (3) $89,-605; Austin Bros. Bridge Co., 1815 Coombs St., Dallas, represented by J. R. Moore and J. B. Templeton, (1) $58,632, (2) $82,339, (3) $87,605; Illinois Steel Bridge Co., Jacksonville, Ill., represented by F. T. Hughes and H. K. Wells, (1) $60,545, (2) $85,419, (3) $90,270. Noted Dec. 9.

Tex., Orange—Orange Co. received bids building 700 ft. steel span bridge, on concrete piers, 16 ft. roadway, over Cow Bayou, on Highway 3, from Houston Constr. Co., 2300 McKinney St., Houston, $84,400; Sherman Constr. Co., Mexia, $91,-000. Noted Nov. 18.

Streets and Roads

PROPOSED WORK

Mass., West Roxbury (Boston P. O.)—City plans to grade and drain 2 acres Mt. Hope Cemetery; work also includes excavating entire lot to dept of 6 ft. About $25,000. J. J. Murphy, 33 Beacon St., Boston, engr.

N. J., Toms River—Bd. Freeholders Ocean Co. plan to pave 1 mi. Washington St., concrete. J. M. Abbott, Toms River, engr.

Va., Roanoke—City receives bids in January paving various streets with vitr. brick. About $300,000. A. W. Morris, city engr.

N. C., Goldsboro—City will sell $227,000 bonds Jan. 3 to improve streets. J. G. Tyson, clk.

N. C., Raleigh—City plans election to vote on $100,000 bonds to curb and gutter various streets. J. B. Bray, comr. Pub. Wks.

N. C., Winston-Salem—Comrs. Forsyth Co. plan election in January to vote on $2,000,000 bonds to hard surface roads.

O., Columbus—City plans to grade, curb, lay water mains and pave 295 ft. Broad St. from Anson to Sandusky Sts., 55 ft. wide, asphalt; 1,340 ft. Main St. from Allen Ave. to Alum Creek, 55 ft. wide, asphalt; 3,555 ft. High St. from Cedar Alley to 5th Ave., 55 ft. wide, probably asphalt; 4,300 ft. Front St. from Town St. to Viaduct, 40 ft. wide. R. H. Simpson, City Hall, engr.

Wis., Alma—Buffalo Co. plans to grade, surface and drain various roads. About $53,656. J. Reinhart, Nelson, comr.

Wis., Chippewa Falls—Chippewa Co. plans to gravel surface roads. About $64,-557. P. O. Lokrantz, comr.

Wis., Jefferson—Jefferson Co. plans to grade and gravel surface various roads and build Portland Bridge in village of Waterloo. About $44,851. R. D. Royce, Ft. Atkinson, comr.

Wis., Oshkosh—City plans to pave South Main St. from 9th St. to South Park Ave.; Nebraska St. from Fox River to 6th St.; Ohio St. from South Park Ave. to 17th St.; 17th St. from railroad tracks to Ohio St.; South Park Ave. from railroad tracks to Ohio St.; Minnesota St. from Fox River to 6th St.; West Algoma St. from Algoma to Pearl Sts.; Frederick Ave. from Irving to Scott Sts.; Grant St. from Algoma to Vinland Sts.; Otter St. from Bowen to Rosalia Sts.; Liberty St. from New York Ave. to Grant St.; Monroe Ave. from Washington to Park Sts.; Marion St. from Jackson to Wisconsin Sts.; Reed St. from Elm to Spruce Sts.; Congress St. from Algoma to Elm Sts.; Grant St. from Vinland to Oakland Sts.; Jefferson Ave. from Irving St. to New York Ave. About $25,000. Bids will be received on concrete, brick, and other types of pavement. G. Randall, city engr.

Wis., Sparta—Monroe Co. plans to grade, gravel surface and build culverts on various roads. About $27,111. C. E. Millard, comr.

Wis., Stevens Point—Portage Co. plans to grade and gravel surface various roads. About $32,118. T. E. Cauley, comr.

Wis., Waupaca—Waupaca Co. plans to grade and gravel surface various roads. About $25,465. J. Huffcut, comr.

Ia., Anamosa—City plans to pave and resurface 50 blocks. About $100,000.

Ia., Lamont—City rejected bids received Dec. 15, paving 25 blocks, rein.-con., asphaltic concrete, bitulithic or brick. Project indefinitely postponed. Shockley Eng. Co., 801 Graphic Arts Bldg., Kansas City, Co., engrs. Noted Oct. 28.

Minn., Duluth—City receives bids about March 1, building 5 mi. Congdon Blvd., concrete. About $400,000. E. Coe, city engr.

Minn., Red Lake Falls—Red Lake Co. plans to build 9 mi. state roads. About $30,000. H. E. Palmer, Red Lake Falls, engr.

S. D., Sturgis—City plans to pave 6 blocks, 30 ft. wide. About $24,000.

Missouri—State Highway Dept., Greenville, received no bids Dec. 17, building 14.38 mi. Sect. A, Piedmont-Marble Hill Rd., Federal Aid Project 129, Wayne Co., involving 93,396 cu.yd. earth and 8,382 cu. yd. rock excav., 8,924 cu.yd. borrow, 57,930 cu.yd. per 100 ft. overhaul, 100,700 sq.yd. specification C gravel pavement, 653.2 cu.yd. Class B and 152.6 cu.yd. Class C concrete masonry, 31,741 lb. reinforcement for concrete masonry, etc. About $146,072.

Mo., Mexico—Audrian Co., c/o S. C. Groves, judge, plans to gravel 3.8 mi. North State Highway. About $57,000. Engineer not selected.

Tex., Austin—City defeated $50,000 bond issue to pave various streets. New election will be held soon. C. E. Leonard, city engr. Noted Nov. 18.

Tex., Eastland—Eastland Co. having plans prepared paving 10 mi. Eastland-Ranger Rd., State Highway 1, involving 105,661 sq.yd. 2 in. bitulithic. About $261,-500. W. R. Eccles, co. engr.

Tex., Franklin—Robertson Co. plans election to vote on $35,000 bonds to complete Kings Trail Highway from Bremond Precinct line on north to Brazos Co. line on south, running through here and Wheelock. L. Acker, Nacogdoches, engr.

Tex., Sierra Blanca—Hudspeth Co. having surveys made gravel surfacing and draining 73 mi. State Highway 1, from El Paso Co. line to Culberson Co. line, 16 ft. wide. About $200,000. H. Schroetter, co. engr.

Okla., Okmulgee—City soon receives bids resurfacing practically all streets in business district and laying 73 blocks of pavement in residential districts, brick and asphalt. About $1,000,000.

Cal., Palo Alto—City receives bids about Mar. 1, grading, paving and laying storm sewers in 2.8 mi. Forest Ave., Alma, Emerson, Cowper and Middlefield Sts., involving 59,680 sq.yd. 5 in. concrete, 6,220 lin.ft. curbing, 6,000 sq.ft. sidewalks, 10,250 cu.yd. excav., 36 catch basins, 20 manholes, 6,000 ft. 10-18 in. vitr. pipe. About $134,210. J. F. Byxbee, Jr., Palo Alto, engr.

Ont., London—Middlesex Co. having plans prepared and soon receives bids building 3 mi. Pipe Line Rd., concrete. About $80,000. C. Talbot, County Bldg., engr.

Ont., Walkerton—Town receives bids in March building concrete pavements on Main St. About $59,000. Address A. NacNab, mayor.

BIDS DESIRED

Louisianna—Until Jan. 10, by Bd. State Highway Engrs., Maison Blanche Annex, New Orleans, building .95 mi. Baton Rouge-New Orleans Highway, Sect. B, Ascension Parish, and 4.6 mi. New Iberia-Burke Highway Iberia Parish. D. Bule, state highway engr.

Tennessee—Until Jan. 17, by State Highway Dept., Nashville, building 12.76 mi., State Highway between Sta. 130 near Bearden and London Co. line, being Sect. B Federal Aid Project 41, Knox Co., involving 36,752 cu.yd. common excav., 2,123 cu.yd. solid rock excav., 8,015 cu.yd. borrow excav., 90,000 sq.yd. reconstructed base course, 44,760 sq.yd. modified Telford base course, 90,000 sq.yd. broken stone base course "C," 134,760 sq.yd. bituminous macadam surface course, 2 cu.yd. special concrete, 287 cu.yd. Class "A" concrete and 27 cu.yd. Class "B" concrete; concrete bridges over 20 ft. span, involving 14 cu.yd. special concrete, 109.88 cu.yd. Class "A" concrete and 267.71 cu.yd. Class "B" concrete, etc.

Tennessee—Until Jan. 17, by State Highway Comn., Nashville, building 15.28 mi. State Highway 32, between Fayetteville and Bedford Co. line, Lincoln Co., involving 70,414 cu.yd. common excav., 29,177 cu.yd. solid rock excav., 33,519 cu.yd. borrow excav., 144,604 sq.yd. bituminous macadam, 13.08 cu.yd. special concrete, 545.1 cu.yd. Class "A" concrete, 327.68 cu.yd. Class "B" concrete, etc. W. P. Moore, state highway engr.

Missouri—Until Jan. 24, by State Highway Dept., Linneus, building 1.95 mi. state road east and west of Brookfield, State Aid Project S 20.24, Linn Co., involving 29,218 cu.yd. earth excav., 48,863 cu.yd. borrow, 16.7 cu.yd. Class B and 3.4 cu.yd. Class C concrete masonry, 1,175 lb. reinforcement for concrete masonry, etc. About $32,161.

Washington—Until Jan. 3, by State Highway Comn., Olympia, grading 7.1 mi. Pacific Highway, near Mud Bay, Thurston Co. J. Allen, Olympia, state highway engr.

Oregon—Until Jan. 4, by State Highway Comn., Room 520 Multnomah Co. Court House, Portland, grading 9.2 mi. road unit 1, Felson-Huntington Sect., Old Oregon Trail, Baker Co., involving 161,000 cu.yd. excav.; paving 8.6 mi. Junction City-Monroe Sect. West Side Highway, Benton and Lane Counties; Portorford-Hubbard Creek Sect., Curry Co., 25,000 cu.yd. excav.; 6.2 mi. Roseburg-Dillard Sect. Pacific Highway, Douglas Co.; 5,700 ft. wood guard fence on Arlington Morrow Co. Line Sect. Columbia River Highway, Gilliam Co.; 6.3 mi. Walker Divide Sect. Lane Co., surfacing 25.3 mi. Lexington Gilliam Co. Line Sect., Oregon-Washington Highway, Morrow Co., 28,500 cu.yd. rock surface; 12.5 mi. gravel or rock surfacing on Seufert-Deschutes River Sect. Columbia River Highway, Wasco Co., 31,000 cu.yd. excav.

Cal., San Luis Obispo—Until Jan. 4, by Bd. Supervs. San Luis Obispo Co., paving 22 mi. Sect. B and C, Rd. 3, and Santa Rosa and Sycamore Sts., 5 in. concrete. W. B. Burch, San Luis Obispo, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Alabama**—State Highway Comn., Montgomery, let contract grading and installing drainage structures on 18.2 mi. Federal Aid Project 88, 24 ft. wide, Marshall Co., to W. T. Taylor Constr. Co., Wilsonville, $126,814.

★**Louisiana**—State Highway Dept., New Orleans let contracts building 5.21 mi. Tallulah-St. Joseph Highway, Sect. A, Madison Parish, to S. K. Jones, 1252 Herbert Ave., Memphis, Tenn., $34,968; 2.11 mi. Rayville-Monroe Highway, Sect. A-1, Richland Parish, to J. M. Bass & Co., Hazelhurst, Miss., $18,558; 13.26 mi. Rayville-Winnsboro Highway, Sect. C, Richland Parish, to A. E. Perry, Colfax, $158,471; 17.37 mi. Arcadia-Shreveport and Arcadia-Ruston Highways, Bienville Parish, to W. H. Smith, Alexandria, $331,903. Noted Dec. 9.

★**Ill., Glencoe**—Village let contract paving 6,300 sq.yd. Skokie Rd., concrete, to M. Foley & Co., Evanston. About $28,000.

★**Kan., Columbus**—Cherokee Co. let contract paving 2.95 mi. Joplin and Galena Rds., Federal Aid Project 71, Sect. A, 18 ft. wide, concrete, to Koss Constr. Co., 2818 5th St., Des Moines, Ia., $138,580. Noted Nov. 11.

★**Missouri**—State Highway Dept., California, let contract to E. C. Johnson, Jefferson City, building various sections of Southern Highway, State Aid Project S 20.14, Manitou Co., .98 mi. (Cole Co. line relocation), $10,359; .84 mi. (McKirk relocation), $3,025; .68 mi. (Sect. A Clarksburg Project), $3,240; .8 mi. (Sect. B Clarksburg Project), $3,557; .95 mi. (Brants relocation), $4,692. Noted Dec. 16.

Missouri—State Highway Dept., Farmington, received bids Dec. 10, building 3.25 mi. state road from Madison Co. line toward Libertyville, State Aid Project S 20.13, St. Francois Co., involving (1) 23,252 cu.yd. earth excav., (2) 1,415 cu.yd. rock excav., (3) 1,894 cu.yd. borrow, (4) 138.6 cu.yd. Class B concrete masonry, (5) 40.3 cu.yd. Class C concrete masonry, etc., from F. T.

Streets and Roads (Continued)

O'Dell, Farmington; (1) $0.58 per cu.yd., (2) $1.85, (3) $0.40, (4) $25, (5) $23; J. Richardson, De Soto, (1) $0.59, (2) $1.99, (3) $0.39, (4) $30, (5) $27.50; E. K. Hawn, Farmington, (1) $0.57½, (2) $2, (3) $0.40, (4) $30, (5) $27.50. Noted Nov. 25.

Missouri—State Highway Dept., Milan, received bids Nov. 27, building 1.4 mi. road east and west through Milan, State Aid Project S 20.15, Sullivan Co., involving (1) 23,259 cu.yd. earth excav., (2) 2,454 cu.yd. borrow, (3) 109.8 cu.yd. Class B concrete masonry, (4) 1.2 cu.yd. Class C concrete masonry, (5) 8,222 lb. reinforcing steel, etc., from Frazier-Davis Co., Arcade Bldg., St. Louis, (1) $0.68 per cu.yd., (2) $0.65, (3) $29, (4) $29, (5) $0.09; C. P. O'Reilly, St. Louis, (1) $0.75, (2) $0.70, (3) $30, (4) $25, (5) $0.10; C. Gidinsky, 4211 Holmes St., Kansas City, Mo., (1) $0.85, (2) $0.70, (3) $30, (4) $25, (5) $0.10. Noted Nov. 4.

★**Missouri**—State Highway Dept., Nevada, let contract to Moss & Schuedler, Nevada, building 2.06 mi. state road from Horton northwest, State Aid Project S 20.12, Vernon Co., involving 5,123 cu.yd. earth excav., cost $0.54 per cu.yd., 18,074 cu.yd borrow, $0.54, 34.1 cu.yd. Class B concrete masonry, $30, 2.8 cu.yd. Class C concrete masonry, $29, etc., total cost $15,467; rein.-con. skew slab superstructure on Sta. 280 plus 00, 2.1 cu.yd. Class A concrete, $60, 90.2 cu.yd. Class B concrete, $26, etc., total cost $4,461; rein.-con. slab superstructure on Sta. 270 plus 45, 2.1 cu. yd. Class A concrete, $60, 152.3 cu.yd. Class B concrete, $27, etc., $6,999, both on above project.

Tex., Canadian—Hemphill Co. received bids Dec. 13, grading, surfacing and draining 13.44 mi. State Highway 4 from here to Lipscomb Co. line, from A. H. Holt & Son, Canadian, $71,295; J. F. Hamer, Stop 6 Interurban, Ft. Worth, $82,300; McKnight & Howell, Amarillo, $95,353. Work involves 2.8 acres clearing and grubbing, 39,391 cu. yd. borrow, 48,721 cu.yd. earth, 1,866 cu. yd. solid and 829 cu.yd. loose rock excav., 28,302 lb. reinforcing steel, 11,307 cu.yd. clay surfacing, 157.2 cu.yd. Class "A," 280.9 cu.yd. Class "B," 32.2 cu.yd. Class "C" and 51.8 cu.yd. 1:2:3 concrete. Noted Dec. 2.

★**Tex., Center**—Shelby Co. let contract grading, gravel surfacing and draining 35.5 mi. State Highway 35, Federal Aid Project 224, to Smith Bros., Crockett, 474,054; including 10% for engineering and contingencies and gravel furnished by county, cost, $111,548. Work involves 105.68 cu.yd. Class A concrete, 4,522 lb. reinforcing steel, 186,559 ft. lumber, 9,644 lin.ft. treated timber, 144,031 cu.yd. earth, 101,189 cu.yd. earth borrow and 1,150 cu.yd. loose rock excav., etc.

Tex., Childress—Childress Co. received bids Dec. 13, clearing, grubbing, grading, surfacing and draining 10.11 mi. State Highway 4, from McKnight & Howell, Amarillo, $42,335; J. T. Rose & Son, Roaring Springs, $46,645; C. W. Burgess, 710 Haines Ave., Dallas, $50,881. Noted Dec. 2.

★**Tex., Dallas**—City let contract paving Ewing Ave. from southern city limits to southwest line of Jefferson Ave., 2 in. bitulithic wearing surface on 5 in. concrete base, to Texas Bitulithic Co., 1101-6 Prætorian Bldg., $184,192.

Tex., El Paso—El Paso Co. received bids Dec. 13, paving 12.61 mi. Fabens Rd., State Highway 1, (a) bituminous concrete with 2 in. wearing surface, (b) plain cement concrete base course, (c) course concrete pavement, (d) crushed stone and Class "C" concrete, from Lu-Moor Contg. Co., Two Republics Bldg., type (a) $306,321, type b, $285,012, (b) $163,815, (c) $396,885, (d) $207,776; El Paso Bitulithic Co., Piedras St., (c) $380,903. Noted Dec. 2.

★**Tex., San Antonio** — Bexar Co. let contract paving South Hackberry St. from Denver St. to Warwick Blvd., involving 10,800 sq.yd. rock asphalt or bitulithic pavement, to Southwest Bitulithic Co., Gunter Bldg., $39,915.

★**Tex., Sinton**—San Patricio Co. let contract grading, surfacing and building concrete and steel bridges and culverts on 12.5 mi. Corpus Christi Rd., State Highway 9, Rd. Dist. 5, from Defined Rd. Dist. 5, c/o Comrs. Benson, Caldwell and Vogel, at Sinton, $206,964; grading, surfacing and building concrete culverts on 15.06 mi. State Highway 9, Rd. Dist. 1, from Defined Rd. Dist. 1, c/o Comrs. Hurt, Williams and Harrison, at Sinton, $178,353; both including 10% for engineering and contingencies. Noted Dec. 16.

★**Tex., Waco**—McLennan Co. will gravel surface 5.16 mi. State Highway 7 from here to Tehuacana Creek, involving 22,703 gal. asphalt, 2,028 cu.yd. gravel and 45,400 cu.yd. bituminous cover material. Work will be done by day labor under supervision of J. P. Alexander, co. judge. Cost, $26,291; including 10% for engineering and contingencies. Noted Dec. 9.

★**Wash., Spokane**—Spokane Co. let contract paving 4 mi. Cheney Highway, concrete, to Moore Constr. Co., Spokane, $49,064.

Cal. Merced — Supervs. Merced Co. received bids building Le Grand Highway from Blumenkranz & Vernon, Stockton, $97,967; Graham & Jensen, Merced, $86,018. Above bids rejected. Work will be done by day labor under supervision of D. K. Thronton, rd. comr.

Railways

PROPOSED WORK

Michigan—Detroit, Toledo & Ironton Ry., Real Estate Exch. Bldg., Detroit, purchased 480 acre site in Flat Rock village, and having plans prepared for terminal yards and freight terminal. H. Ford & Co., River Rouge, engrs.

Minnesota — Minneapolis, Northfield & Southern Ry., 800 Hennepin Ave., Minneapolis, plans to build 12 mi. extension from Northfield to Faribault. About $125,000. H. E. Pence, pres.

Texas—See "Industrial Works."

Excavation and Dredging

PROPOSED WORK

Wis., Phillips — Ditch-Price Co. Farm Drainage Bd. having plans prepared building 3 mi. open ditch and laying 1 mi. 10 in. tile. Cost to exceed $15,000. R. Jakoubec, secy. L. M. Schindler, 721 Clark St., Appleton, engr.

BIDS DESIRED

Ia., Muscatine—Drainage—Until Jan. 12, by F. W. Johnston, aud. Muscatine Co., building drainage improvements in Sub-Dist. 1, D.D. 13. C. H. Young, c/o Central States Eng. Co., Muscatine, ch. engr.; advertised in this issue. Noted Dec. 9.

Minn., Bemidji—Ditch—Until Jan. 7, by A. D. Johnson, aud. Beltrami Co., and R. C. Fraser, aud. Koochiching Co. (International Falls) redigging Lateral 2, Judical Ditch involving 38,600 cu.yd. excav. About $25,000. W. M. Everts, Bemidji, engrs.

Minn., Granite Falls—Ditch—Until Jan. 4, by G. H. Wilson, aud. Yellow Medicine Co., and R. D. Houdersheldt, aud. Lyon Co., (Marshall), building Judicial Ditch 17, involving 4,313 cu.yd. open work, 28,280 ft. 6-20 in. tile. About $25,000. J. Leas, Cottonwood, engr. Noted Oct. 7.

Minn., Waseca—Ditch—Until Jan. 7, by Waseca Co. building Co. Ditch 21, involving 15,040 lin.ft. 6-26 in. tile, 8 surf water inlets, etc. About $23,412. G. Cox, Waseca, engr. Noted Dec. 23.

Mo., New Madrid — Ditches, etc. — Until Jan. 5, by C. L. V. Jones, clk. New Madrid Co., constructing Little Otter Slough Ditch, involving 179,768 cu.yd. excav. and 85.43 acres clearing; ditch along south line of St. Louis, Iron Mt. & Southern R.R., 12,102 cu.yd. excav.; Main Ditch, 452,060 cu.yd. excav. and 160.15 acres clearing; Little River Ditch, 102,388 cu.yd. excav. and 69.92 acres clearing. All above ditches in D.D 12.

Ont., L'Orignal—Drain—Until Feb. 15, by J. H. Menthol, R.R. 2, Vankleek Hill, for excav. and concrete work on O'Brian Drain, in Caledonia and Alfred Twps., for Prescott Co. Work involves 138,350 cu. yd. earth excav., 96½ cu.yd. concrete for culverts, etc. About $75,000. Magwood & Stidwell, Cornwall, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Mt. Pleasant**—Ditch—Henry Co. and Whiteside Co. (Morrison), Ill., let contract for open ditch work in Rock River Drainage and Leve Dist., involving 170,000 cu.yd. excav., to Matthews Bros., Erie, Ill., $14.96 per cu.yd.

Industrial Works

PROPOSED WORK

Mass., Worcester—Sleeper & Hartley, Inc., 335 Chandler St., preparing plans for 1 story, 60 x 200 ft. bill construction factory. About $50,000. Private plans.

N. Y., Brooklyn—Grasselli Chemic Guardian Bldg., Cleveland, O., pla build 1 story chemical plant ad rein.-con., brick and steel, rein.-con. ing, brick and concrete foundation. Newtown Creek, here. About $1 Lockwood-Green & Co., 101 Park Ave York City, archts. and engrs.

N. J., Millville — Whithall-Tatum Co. Barclay St., New York City, having prepared by R. W. Pollock, archt., Chestnut St. Phila., for 2 story, 35 x ft., glass ware factory, brick, here.

N. J., Newark—Butterworth-Ju Corp., Doremus Ave., had plans prep reconstructing 3 story factory. About $1 000. Private plans.

Pa., Hazleton—S. Liebowitz Sons, E. Mine St., plan to build 3 story, 30 x 1 shirt factory, on North Wyoming St. Ab $100,000. Architect and engineer not lected.

Md., Baltimore—General Chemical Co. Munsey Bldg., soon lets contract buildi 50 x 59 ft. concrete power house, on Ra and Winder Sts. J. G. White Corp., 4 Exchange Pl., New York City, archts.

Va., Winchester—C. L. Robinson plans to build 2 story, 70 x 200 ft. plant. Project will mature in spring.

Tenn., Etowah—Louisville & Nashville R.R., Knoxville, plans to construct repair shops and machinery building to replace those destroyed by fire. Loss, $150,000. W. H. Courtney, ch. engr.

O., Cincinnati—J. H. McGowan, 916 4th Natl. Bank Bldg., plans to build factory addition, on 2nd St. and Central Ave. About $190,000. Tietig & Lee, 901 4th Natl. Bank Bldg., archt.

O., Cincinnati—Herold Motor Car Co., 920 Race St., plans to build 87 x 95 ft., rein.-con. and brick service station, rein.-con. flooring, at 214 Webster St. About $60,000.

Ind., Indianapolis—Polar Ice & Fuel Co., 20th St. and Northwestern Ave., opens bids about Jan. 10, building 1 story, 30 x 70 ft., brick and steel storage plant, brick foundation. About $75,000. A. C. Bishop & Co., 427 Guardian Bldg., Cleveland, archts. and engrs.

Mich., Flat Rock—See "Railways."

Ill, Chicago—A. Batik, care of A. Charvart, archt., 2621 Millard Ave., had plans prepared for 3 story, 40 x 120 ft, ice plant, mill construction, concrete foundation. About $60,000.

Wis., Berlin—W. C. Russell Moccasin Co. had plans prepared 3 story, 40 x 130 ft., brick, rein.-con. and steel factory, rein.-con. flooring, brick foundation, on Main St. About $75,000. W. C. Russell, pres. Private plans.

Wis., Jefferson—A. Heilemann & Co. plans to convert brewery into ice cream factory, and build 3 story, 70 x 112 ft., brick, rein.-con. and steel addition, rein.-con. flooring, brick foundation, on Main St. About $75,000. Architect not selected, probably private plans.

Wis., Okauchee—W. Schradenbach plans to build 2 story, 50 x 110 ft., rein.-con., brick and steel garage and show room, rein.-con. flooring, brick foundation, on Main St. About $75,000. Architect not selected.

Wis., Reeseville—Reeseville Canning Co., c/o O. A. Sell, plans to build 4 story, 60 x 185 ft., brick, rein.-con. and steel factory, rein.-con. flooring, concrete foundation on Main St. About $75,000. Architect not selected.

Wis., Rice Lake—H. Ashlin, Reuter Ave., plans to build 3 story, 60 x 150 ft. mill construction factory, concrete foundation, on Reuter Ave. About $75,000 Architect not selected.

Wis., Rosendale—Rosendale Produce Co. plans to build 3 story, 50 x 210 ft., brick, rein.-con. and steel warehouse, rein.-con. flooring, concrete foundation. About $80,000. Architect not selected.

Minn., St. Paul—Farmers Consolidated Distributing Co., 935 Andrus Bldg., Minneapolis, plans to build 3 story, 75 x 125 rein.-con., brick and tile factory, on Prior Ave. and Montague Pl. About $350,000 Architect not selected.

Minn., South St. Paul—St. Paul Union Stock Yards Co., 631 Exch. Bldg., plans to build rein.-con., brick and stone stock pavilion. About $500,000. Architect not announced.

Industrial Works (Continued)

Tex., Amarillo—Ft. Worth & Denver Ry. Co., Bogard Bldg., Ft. Worth, plans to expend $200,000 to improve shops and yards. Project also includes new machinery, additional tracks, erection 5 engine stalls and power and electric light plant. F. E. Clarity, vice-pres. and genl. mgr.

Ont., Brantford—City receives bids about Jan. 15, building 75 x 120 ft. addition to electric station. About $80,000. Address A. MacBride, Mayor.

Ont., London—Canadian Vitex Feed & Milling Co., Toronto, plans to build rein.-con. feed mill, here. About $75,000.

Cal., Los Angeles—Atchison, Topeka & Santa Fe R.R., Kerckhoff Bldg., having plans prepared by W. H. Mohr, archt., 761 Kerckhoff Bldg., for 4 story, 85 x 275 ft. ice plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at Hobart Sta.

BIDS DESIRED

Va., Richmond—Crystal Ice Co., 525 Brooke Ave., receiving bids altering 3 story plant. About $50,000. R. H. Greene and W. P. Thurston, Merchants Natl. Bank Bldg., archts.

Fla., Bartow—Until Jan. 3, by B. C. Bonfoey, archt., Tampa, building 2 story, 50 x 75 ft. brick newspaper plant, concrete and Spanish tile flooring, brick foundation, here, for Polk Co. Record. About $75,000. J. G. Gallemore, editor.

Wis., Manitowoc—Manitowoc Shipbuilding Co., 16th St. and Manitowoc River, receiving bids building 1 story, 60 x 180 ft. round and power house, brick, rein.-con. and steel, rein.-con. flooring, brick foundation, on 8th St. About $75,000. Private plans.

Wis., Valders—Juul-Smith, archts., Imig Bldg., Sheboygan, receiving bids building 2 story, 34 x 150 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Main St., for W. F. Christel. About $75,000. Noted Dec. 9.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**R. I., Pawtucket**—Hope Webbing Co., 1005 Main St., let contract building 5 story, 80 x 190 ft. brick and steel addition to plant, also 1 story, 20 x 26 ft. boiler house, for Central Constr. Co., Slater Trust Bldg. About $300,000. Noted Dec. 2.

★**N. Y., Brooklyn**—W. Ulmer Brewery Co., 3 Belvidere Ave., will build 1 story, 100 x 195 ft., rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on Myrtle Ave. near Bway. About $75,000. Work will be done by day labor.

★**N. Y., Brooklyn**—S. Ageloff, 126 Reid Ave., will build 1 story, 100 x 200 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Myrtle Ave. near Lewis Ave. About $100,000. Work will be done by day labor.

★**N. Y., Brooklyn**—S. A. Werthein, c/o C. L. Sefert, archt. and engr., 206 West 76th St., New York City, will build 1 story, 100 x 175 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Grand St. near Morgan Ave. About $70,000. Work will be done by day labor.

★**N. Y., Brooklyn**—J. T. Aaron, 936 St. Marks Ave., will build 1 story, 230 x 245 ft., brick and steel garage, rein.-con. flooring, concrete foundation, on Pacific St. near Schenectady Ave. Work will be done by day labor.

★**N. Y., New York**—A. C. Chesley & Co., 277 Rider Ave., will build 2 story, 50 x 200 ft., rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on 132d St. and Cypress Ave. About $100,000. Work will be done by day labor. Noted Dec. 9.

★**N. Y., New York**—C. D. Nathan, c/o F. Savignano, archt. and engr., 6005 14th Ave., Brooklyn, will build 6 story, brick, steel and concrete factory, rein.-con. flooring, concrete foundation. About $100,000. Work will be done by day labor.

★**N. Y., New York**—J. Guarino, c/o D. Bleier, archt. and engr., 2366 Webster Ave., will build 1 story, 80 x 100 ft., brick and steel garage, rein.-con. flooring, concrete foundation, at 28-32 Hamilton St. About $75,000. Work will be done by day labor.

★**N. J., East Orange**—Jephson-Scott Body Co., 24 Sterling St., let contract building 2 story, 58 x 63 ft. factory, to C. R. Hedden Co., 763 Broad St., Newark. About $70,000. Noted Nov. 25.

★**O., Cleveland**—Mall Motor Co., 632 Superior Ave., let contract building 2 story, 130 x 160 ft., rein.-con., brick and steel garage, rein.-con. flooring, brick and concrete foundation, on Superior Ave. and East 12th St., to Lundoff-Bicknell Co., 5716 Euclid Ave. About $200,000. Noted Dec. 16.

★**Wis., Fond du Lac**—Latex Tire & Rubber Co. will build 2 story, 60 x 178 ft., rein.-con. and steel factory, rein.-con. flooring, concrete foundation, on East State St. About $40,000. Work will be done by day labor under supervision G. E. Mehner, archt., Fond du Lac.

Wis., Milwaukee—Sewerage Comn. received bids building and equipping electric power plant on Jones Island, (1) proposal 1, plant M-S, (a) alternate 1, (b) alternate 2; (2) proposal 2, M-S1, (a) alternate 1, (b) alternate 2, (c) alternate 3, (d) alternate 4, (e) alternate 5, (f) alternate 6; (3) proposal 3, plant M-S 2, (a) alternate 1; (4) proposal 4, plant P-F, (a) alternate 1; (5) proposal 5, plant P-F, (6) proposal 5, plant P-F 1, (a) alternate 1, (b) alternate 2, (7) proposal 6, plant P-F 2, (a) alternate 1, from Industrial Heating & Eng. Co., 143 Oneida St., (1) $309,000 (1a) $313,-100, (1b) $313,800, (3) $356,100, (3a) $356,-800, (5) $224,000, (7) $496,700; Edgemoore Iron Co., Edge Moor, Wilmington, Del., (1) $327,000, (1a) $332,000, (1b) $339,000, (4) $275,600, (4a) $287,600, (7) $512,000, (7a) $442,000; C. J. Fox, 1208 Grand Ave., (1) $330,500; W. A. Pope, 26 North Jefferson St., Chicago, Ill., (1) $344,400, (1a) $344,-400, (1b) $355,300, (7) $525,900, (7a) $464,-500; Downey Heating & Supply Co., 613 Clybourn St., (1) $358,187, (7) $564,832; Stephens-Adamson Mfg. Co., Ridgeway St., Aurora, Ill., (2) $60,763, (2a) $63,800, (2b) $65,300, (2c) $68,800, (2d) add $500 to alternates 1, 2 and 3, (2e) add $750 to alternates 1, 2 and 3; Phillips Lang Co., 342 South Dearborn St., Chicago, Ill., (2) $63,-290, (2a) $59,890, (2b) $60,495, (2c) $63,-600, (2d) $63,385, (2e) $66,775, (2f) $59,530; Chain Belt Co., 736 Park St., (2) $66,550, (2a) $69,950; Link Belt Co., 910 South Michigan Ave., Chicago, Ill., (2) $74,844, (2a) $67,602; Combustion Eng. Co., 38 South Dearborn St., Chicago, Ill., (6) $238,-535, (6a) $167,775, (6b) 5,000 additional; Bonnot Co., 722 Mulberry Rd., S. E., Canton, O., (6) $275,000; Allis-Chalmers Mfg. Co. West Allis (Milwaukee, P. O.), (6) $438,-230, (6a) $437,200. Noted Oct. 7.

★**Minn., Elk River**—Elk River Power & Light Co. let contract building addition to power house, to Siems, Helmers & Schaffner, 514 Guardian Life Bldg., St. Paul.

★**Ont., Toronto**—City will build 1 story, 80 x 100 ft. concrete and steel, concrete flooring and foundation, on Dundas St. About $50,000. Work will be done by day labor.

★**Ont., Toronto**—G. A. Morgan, 875 St. Clair Ave., let steel contract for 2 story, 60 x 80 ft. rein.-con. and steel garage, rein.-con. flooring, concrete foundation, on St. Clair Ave., to Hepburn & Desher, 18 Van Horne St.; concrete, to J. Harrop, 1414 Davenport Rd. Total cost about $50,000.

★**Ont., Windsor**—Universal Garage Co., 116 Chatham St. W., let contract building 2 story, 90 x 115 ft. rein.-con. and brick garage, rein.-con. flooring, concrete foundation, on Chatham St., to Wells & Gray, Ltd., Bank of Commerce Bldg. About $70,000.

Buildings

PROPOSED WORK

Me., Portland—Home—St. Joseph Roman Catholic Church rejected bids buiding 3 story, 40 x 150 ft. Will refigure in spring.

N. H., Groveton — Club House — Groveton-Paper Co., Inc., plans to build 2 story, 100 x 101 ft. brick and steel. Private plans.

N. H., Newington (Portsmouth P. O.)—School—School Com. having plans prepared by Dow, Harlow & Kimball, archts., 101 Tremont St., Boston, for brick school. About $75,000.

Mass., Boston —Office — Edison Electric Illuminating Co., 70 State St., plans to build 8 or 10 story, on Boylston St. Architect not selected.

Mass., Lynn — Schools — City plans to build high school, cost $400,000, elementary and primary schools, cost $50,000 each. Architect not selected.

Mass., Northampton—Club—Polish Naturalization Club had plans prepared by W. F. Pratt, archt., 229 Elm St., for 2 story, brick and steel, concrete foundation, on Main St. About $75,000.

Mass., Springfield — Church — Liberty Methodist Church, 4 Harvard St., having plans prepared by Howes & Howes, archts., 243 High St., Holyoke, for 1 story, brick on Carew, Liberty and Stockman Sts. About $75,000. Noted Dec. 16.

R. I., Providence — Hospital—Providence Lying-In Hospital, 96 State St., purchased large site on Pleasant Valley Parkway, and plans to build hospital. Architect not selected.

Conn., Hartford — Apartment — N. Carabillo, 210 Farmington Ave., plans to rebuild Jewell Court Aprtment. About $100,-000. Architect not announced.

Conn., Hartford—Apartment—D. Tramonte, 109 Edwards St., having plans prepared by H. H. Beckenstin, archt., 310 Albany Ave., for brick and concrete. Cost between $125,000 and $150,000.

Conn., Hartford—Club—Moose Bldg. Assn. Inc., 450 Asylum St., plans to build 2 story, brick, on High St. Architect not selected.

Conn., Hartford—Hospital—Hartford Hospital, 20 Hudson St., having plans prepared by C. J. Malmfeldt, archt., Professional Bldg., for 6 story, brick, steel and rein.-con. addition. About $500,000. Noted Jan. 29.

Conn., Hartford—Temple—Masonic Hall Assn., 51 Ann St., plans to build fireproof. Architect not selected.

Conn., Milford—School—Bd. Educ. having plans prepared by R. Williams, archt., 185 Church St., New Haven, for 2 story, brick and steel addition to Walnut Beach School. About $85,000.

N. Y., New York—College—Manhattan College, 131st St. and Bway., plans to construct several brick and stone buildings, brick foundations, on Spuyten Duyvil Parkway opposite Van Cortlandt Park. About $1,000,000. Architect not selected.

N. Y., New York—Institution—Seamens Church Institute, c/o Warren & Wetmore, archts. and engrs., 10 East 47th St., plans to build 100 x 125 ft. brick, stone and steel, concrete foundation, about 11 story, at 41 Front St.

N. Y., Randalls Island (New York P. O.)—Kitchen and Dining Hall—Dept. Pub. Welfare, Municipal Bldg., New York City, plans to build brick and stone, concrete foundation, here. About $150,000.

N. J., Haddonfield — Clubhouse — Tavistock Country Club, c/o V. Bennet, 2d and Cherry Sts., Camden, having plans prepared by C. R. Peddle, archt., 130 South 4th St., Phila., for 2 story, 50 x 100 ft., stone. About $75,000.

N. J., Newark—School—Bd. Educ., City Hall, had plans prepared by J. B. Allen, archt., 1091 Sanford Ave., for 3 story, 165 x 205 ft. school, on Grove Ave. About $800,000.

N. J., Old Bridge—Church—Our Lady of Victory Church, c/o Berry & Cummiskey, archts., Real Estate Trust Bldg., Phila., plans to build 1 story, 40 x 105 ft., brick and stucco, here. About $100,000.

Pa., Butler—Bank and Office—First Natl. Bank having plans prepared by Simon, Brittain & English, archts., Magee Bldg., Pittsburgh, for 3 story, 51 x 60 ft., brick and steel, rein.-con. flooring, concrete and brick foundation. About $75,000.

Pa., Chester—Hospital—St. James Catholic Hospital, c/o J. F. Dunn, 3rd and Lloyd Sts., plans to build 1 story, stone. About $100,000. F. F. Durang, 1220 Locust St., Phila., archt.

Pa., Hazleton—Bank—Hazleton Slavonic Bank, 41 North Wyoming St., plans to build 1 story, 30 x 100 ft., marble and brick, at 1 East Broad St. About $150,000. Architect and engineer not selected.

Pa., McKeesport — Synagogue — B'nai Israel Congregation having plans prepared by Jallad, Lindsey & Warren, archts. and engrs., 129 Lexington Ave., New York City, for brick and stone, brick and stone foundation. About $200,000.

Pa., Northumberland — Church—United Brethren Church, c/o W. H. Lee, archt., 32 South 17th St., Phila., plans to build 1 story, stone. About $100,000.

Pa., Scranton — Theatre — Comerford Amusement Co., 303 Lackawanna Ave., plans to build theatre on Wyoming Ave. Cost between $150,000 and $200,000. L. Pempherd, Rochester, N. Y., archt.

Del., Laurel—High School—Bd. Educ. soon receives bids building brick and stone. About $200,000. V. W. Torbet, 200 5th Ave., New York City, archt. and engr.

D. C., Wash.—Church and Sunday School—Takoma Park Baptist Church plans to build stone. About $100,000. A. P. Clark, Jr., 816 14th St., archt.

D. C., Wash.—College—Augustinian Order having plans prepared by J. J. Kennedy, archt., Ford Bldg., Wilmington, Del., for college. About $300,000. F. J. McShane, 1041 Lawrence St., Brooklyn, D. C., pastor.

Buildings (Continued)

D. C., Wash.—College—Howard University having plans prepared by W. A. Hazel, archt., c/o owner, for home economics building, brick, steel and rein.-con. About $200,000.

D. C., Wash.—Store and Office—G. N. Ray, archt., 1147 Connecticut Ave., N. W., preparing plans for 7 story, brick, limestone and rein.-con. About $100,000. Owners name withheld.

Va., Norfolk—School—Bd. Educ. having plans prepared by Calrow, Wrenn & Tazewell, archts., Norfolk, for Western Junior High School, 4 story, 150 x 310 ft., brick and terra cotta, on Spottswood Ave. and Washington Park. About $700,000.

N. C., Monroe—High School—City voted $200,000 bonds to build and equip high school. Noted Dec. 9.

N. C., Raleigh—College—North Carolina State College of Agriculture and Engineering plans to construct agricultural building on campus. About $150,000. J. A. Salter, Raleigh, archt.

Ga., La Grange—Hotel—C. R. Callaway soon receives bids building 6 story, rein.-con., brick and steel, concrete foundation. About $350,000.

Fla., Tampa—Home—Childrens Home Society, c/o A. Maas, pres., 601 Boulevard, plans to build 2 story, 100 x 150 ft., rein.-con. and brick, on Florida Ave. About $150,000.

Fla., Tampa—Sunday School—Hyde Park Methodist Church, c/o L. M. Broyles, pastor, 524 Platt St., plans to build 1 story, 50 x 90 ft. brick, rein.-con. flooring, on Cedar Ave. About $90,000. Architect not selected.

Miss., Rosedale—School—Bd. Educ. had plans prepared by Alsop & Callahan, archts., Memphis, Tenn., for brick and stone. About $100,000.

O., Cleveland—Hospital—St. Clair Hospital, 4422 St. Clair Ave., plans to build brick and steel addition, brick foundation. About $75,000. Architect not selected.

O., Columbus — Divinity Hall — Capitol University plans to build 1 and 2 story, probably rein.-con. and ordinary construction, on College Ave. and East Main St. About $150,000. Perkins, Fellows & Hamilton, 814 Tower Court, Chicago, archts.

O., Columbus—Schools—Bd. Educ. receives bids about Jan. 1, remodeling East, South, North High Schools, Mitchell, Bellows and Eastwood Aves. grade schools. Noted June 4.

O., Maple Heights (Bedford P. O.) — School—Bd. Educ. having plans prepared by C. W. Bates, archt., Natl. Bank Bldg., Wheeling, W. Va., for 3 story, 13 room, rein.-con., brick and steel addition, rein.-con. flooring, brick and concrete foundation, on Libby Rd. About $300,000. Noted Dec. 2.

O., Ravenna—School—Bd. Educ. having plans prepared by O. D. Howard, archt., 8 East Broad St., Columbus, for 3 story, 20 room, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $300,000.

O., Rocky River—Bank—Riverside Savings & Loan Co. having plans prepared by R. H. Hinsdale, archt., Bangor Bldg., Cleveland, for 2 story, 25 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, brick foundation. About $100,000. J. A. Spitzig, secy. Noted March 25.

O., Springfield — Courthouse — Comrs. Clark Co. open bids about Feb. 1, building 3 story, 100 x 156 ft. fireproof, on Limestone and Columbus Sts. About $250,000. W. K. Shilling, Fox Hollow Farm, R. 7, archt.

Ind., Bluffton—School—A. E. Hunt, trustee, R. R. 5, receives bids about Jan. 28, building 2 story, 80 x 108 ft., concrete and brick, in Lancaster Twp. About $110,000. O. Hoffman, Decatur, archt.

Ind., Hammond—Temple—H. G. Schmidt & Co., archts., 154 West Randolph St., Chicago, soon lets contract building 3 story, 184 x 218 ft., rein.-con., brick and stone, here, for Masonic League. About $350,000.

Mich., Gladstone — School — School Bd. opens bids in February, building 2 story, 63 x 130 ft. and 60 x 80 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation. About $140,000. G. Arntzen, Escanaba, archt.

Ill., Chicago—Church—Buena Memorial Presbyterian Church, 4241 Sheridan Rd., plans to build church on Sheridan Rd. and Bway. About $250,000. I. V. Naess, 64 East Van Buren St., archt.

Ill., Chicago—Hospital—G. Bass, 6055 Euclaire Ave., plans to build hospital at 460 East 32nd St. About $1,000,000.

Ill., Chicago—Hotel—A. R. Jones Syndicate purchased site on Jackson Blvd., Canal and Clinton Sts., and plans to build large hotel. Marshall & Fox, 721 North Michigan Blvd., archts.

Wis., Antigo—Theatre—H. E. Hanson, c/o Palace Theatre, plans to build 2 story, 60 x 110 ft., brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on 5th Ave. About $100,000. Architect not selected.

Wis., De Pere—High School—Bd. Educ. having plans prepared by Foeller & Schoebber, archts., 123 North Washington St., Green Bay, for Union High School, 4 story, 60 x 210 ft., brick, rein.-con. and stone, rein.-con. flooring, brick foundation, on Main St. About $150,000. N. Van Sustine, secy. Noted Sept. 23.

Wis., Fond du Lac—High School—Bd. Educ. had plans prepared by Childs & Smith, archts., 64 East Van Buren St., Chicago, Ill., for Senior High School, 3 story, 110 x 115 ft., tile and brick, rein.-con. flooring, concrete foundation, on Linden St. About $275,000 A. M. Hunter, secy.

Wis., Fond du Lac—Temple—Loyal Order of Moose plans to build 5 story, 80 x 82 ft., brick and terra cotta. About $143,000. B. E. Mehner, 6 East Division St., archt.

Wis., Kellnersville—School—Joint Dist. 9, c/o W. Hynek, clk., R. D., Cato, plans to build 1 story, 50 x 105 ft., concrete and brick, brick foundation, near here. About $75,000. Architect not selected.

Wis., Manitowoc—Hotel—North House, 426 North 9th St., plans to remodel hotel and build large unit, 2-3 story, 80 x 140 ft., rein.-con. and brick, concrete foundation, on Jay St. A. D. Killian, proprietor. Architect not selected.

Wis., Manitowoc—Memorial—H. A. Kelley, atty., 717 North 7th St., soliciting subscription to raise $250,000 funds to build 4-5 story, concrete, brick and stone, brick foundation. Architect not selected.

Wis., Manitowoc—Training School—Manitowoc Co. Bd. plans to build 2 story, 60 x 110 ft., brick, rein.-con. and stone, brick foundation, on 8th St. About $75,000. A. Schroeder, clk. Architect not selected.

Wis., Mayville—High School—Joint Free High School Dist. having plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, for 4-5 story, 65 x 210 ft., brick, rein.-con. and stone, brick foundation, on Main St. About $100,000. Noted Oct. 28.

Wis., New Holstein — Church — Zion Lutheran Church having plans prepared by Leiser & Holst, archts., Brumder Bldg., Milwaukee, for 1½ story, 60 x 88 ft., brick, rein.-con. and tile, concrete foundation, on Main St. About $75,000. A. Halboth, pastor.

Wis., Oconto Falls—School—Bd. Educ. having plans prepared by Juul & Smith, archts., Imig Bldg., Sheboygan, for 1 story, 76 x 100 ft. high and grade school, concrete, brick and tile, brick foundation, on Main St. About $100,000. G. Krohn, secy.

Wis., Okauchee — Showroom, etc. — See "Industrial Works."

Wis., Reedsburg—High School—Bd. Educ. plans to build 2 story, rein.-con., brick and tile. About $100,000. A. B. Olson, principal. Architect not announced.

Wis., Sheboygan—Clinic—Clinic Bldg. Co., 1135 Michigan Ave., having plans prepared by E. A. Stubenrouch, archt., 1439 Maryland Ave., for 2 story, 80 x 90 ft., brick and stone, brick foundation, on 8th and Ontario Sts. About $125,000. J. Junck, secy. Noted Aug. 12.

Wis., Stevens Point—Hotel—F. L. Body, secy. Stevens Point Hotel Co., opens bids about March 1, building 5 story, 60 x 140 ft., brick, rein.-con. flooring, concrete foundation, on Main St. About $150,000. Architect and engineer not selected. Noted Dec. 2.

Wis., Tisch Mills—Bank and Office—Tisch Mills State Bank plans to build 2 or 3 story, 36 x 85 ft., concrete, brick and tile, concrete foundation, on Main St. About $80,000. Architect not selected.

Wis., Watertown Junction—Depot, Hotel, etc.—Chicago, Minneapolis & St. Paul Ry. Co., c/o J. T. Kellick, genl. mgr., Ry. Exch. Bldg., Chicago, preparing plans for 2-3 story, 60 x 105 ft., depot, hotel, restaurant, etc., brick and stone, concrete foundation, here. About $100,000. Private plans.

Wis., Waukesha — Hospital—Municipal Hospital, 831 Grand Ave., plans to build brick or stone and concrete, rein.-con. flooring, concrete foundation. About $150,000. V. Tichenor, pres. Bd. Dirs. Architect and engineer not selected.

Ia., Decorah—High School—City election Jan. 10, to vote on $150,000 bonds to build 2 or 3 story, rein.-con. and brick. Cost, $250,000. C. F. Barfoot, secy. Bd. Educ. Architect not announced.

Ia., Sioux City — Temple — H. Holmes, archt., 30 North Michigan Ave., Chicago, preparing plans and receives bids in March, building 4 story (ultimately 10 story) 1[illegible] x 250 ft., rein.-con. and steel, rein.-con. flooring, concrete foundation, on 12th St. between Jackson and Nebraska Sts., for Masonic League, here. Beuttler & Arnold, Grain Exch. Bldg., associated archts. Noted July 1.

Minn., Hardwick — School—Consolidated School Dist, c/o Headley, supt. Rock Co. Luverne, plans to build 2 story, rein.-con. brick and tile, here. About $75,000. Architect not selected.

Minn., Hugo—School—Bd. Educ. having plans prepared by Foss & Foss, archts. St. Cloud, for 2 story, rein.-con. brick and tile. About $75,000.

Minn., Minneapolis—Hospital—State Bd. Control, Capitol, St. Paul, plans to build 3 or 4 story, rein.-con., brick, tile and stone on State University campus, here. About $400,000. C. M. Johnston, 715 Capitol Bank Bldg., St. Paul, archt.

Minn., Minneapolis—Store, etc.—P. Hein, archt., 548 Builders Exch. Bldg., preparing plans for 2 to 3 story, 93 x 110 ft., rein.-con., brick and stone. About $100,000. Owner's name withheld.

Kan., Richmond—High School—Bd. Educ. having plans prepared by T. Williamson & Co., archts., 418 Central Natl. Bank Bldg., Topeka, for 2 story, rein.-con., steel and brick, rein.-con. flooring, rock foundation. About $75,000.

Neb., Norfolk — School — Bd. Educ. receives bids in February, building 2 story, 145 x 208 ft., fireproof. About $450,000. J. C. Stitt, Norfolk, archt. Noted Nov. 18.

S. D., Rutland—School—Bd. Educ. plans to build 2 story, rein.-con. brick and tile. About $75,000. W. L. Freed, Watertown, archt.

S. D., Vermilion—High School—Bd. Educ. receives bids about Feb. 1 building 3 story, 56 x 78 ft., rein.-con. and brick addition. About $75,000. W. E. Hulse & Co., 320 Grain Exchange Bldg., Sioux City, archts.

S. D., Winfred—School—Bd. Educ. plans to build 2 story, rein.-con., brick and tile. About $75,000. W. H. Beddow, pres. Architect not selected.

Mont., Lewistown — School — Bd. Educ. plans to build 2 story, rein.-con., brick and tile. About $125,000. A. A. Franzke, supt. Architect not announced.

Mont., Miles City—High School—Bd. Educ., c/o O. Lovett, supt. schools, had plans prepared for 3 story, rein.-con., brick stone and tile. About $400,000. Architect not announced.

Mont., Missoula—Library—University of Montana, University Ave., plans to build rein.-con. brick, stone and tile on campus. About $600,000. E. O. Sisson, pres. Architect not announced.

Mo., Kirkwood—School—City voted $205,000 bonds to build school. E. C. Harper, clk. Architect not selected. Noted Dec. 23.

Mo., St. Louis—Hotel and Mercantile—Syndicate c/o F. Obear, Arcade Bldg., plans to construct 110 x 150 ft. hotel and mercantile building, on Delmar and De Baliviere Sts. About $500,000. Architect not selected.

Mo., St. Louis—Sales—P. J. Bradshaw, archt., International Life Bldg., soon receives bids building 1 story, 100 x 210 ft., brick, concrete, stucco and terra cotta, on West Pine and Vandeventer Sts., for Vesper-Buick Auto Co., Grand and Lindell Aves. About $100,000

Mo., Springfield—Church—Campbell St. Methodist Church, South, plans to build 2 story, brick. About $100,000. W. F. McMurry, pastor. Architect not selected.

Col., La Junta—High School—School Dist. election Jan. 20, to vote on $200,000 bonds to build school.

Cal., Merced—Hotel—J. I. Mitrovich, archt., 542 46th Ave., San Francisco, preparing plans for 5 story, 130 x 320 ft. rein.-con., on L St. between 19th and 20th Sts. About $500,000. Owner's name withheld.

Cal., Oakdale—School—Grammar School Dist. plans election about Jan. 20 to vote on $135,000 bonds to build 2 story, brick or rein.-con. W. H. Weeks, 75 Post St., San Francisco, archt.

Cal., San Francisco — Theatre—Lowe, Ackerman & Harris having plans prepared by Reid Bros., archts., 105 Montgomery St., for rein.con. and steel, on Post and Powell Sts.

Ont., Toronto—Schools—Bd. Educ. plans to build following schools in 1921: St. Clair Ave. W., 8 rooms; east of Prospect Cemetery, 8 rooms; Sunnyside School, 8 rooms; Ryerson School, 18 rooms; Monarch Park

Buildings (Continued)

6 rooms; and Woodbine School, 6 rooms, cost $800,000; also additions to Dufferin St. School, 6 rooms; Hester How School, Glenholme Ave. School, Wilkinson School, and Gledhill School, all 4 rooms, cost $400,000.

B. C., Prince Rupert—Court House—Provincial Government, Victoria, rejected bids building 4 story, here. New bids will be received when prices become stabilized. H. Whitaker, Pub. Wks., Dept., Victoria, archt.

BIDS DESIRED

Mass., Jamaica Plain (Boston P. O.)—Theatre—W. A. Dykeman, archt., 120 Tremont St., Boston, receiving bids building superstructure for 1 story, 85 x 120 ft. rein.-con., brick and steel, rein.-con. flooring, on Centre St., for Jamaica Amusement Co., 37 Tremont St., Boston. About $100,000. Noted Nov. 4.

Mass., Plymouth—Memorial Hall—Town Memorial Comn. receiving bids building 2 story, 127 x 250 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Court St. About $250,000. Little & Russell, 45 Bromfield St., Boston, archts. Noted June 10.

Conn., Hartford — Hotel — Lockwood, Greene & Co., archts., 60 Federal St., Boston, receiving bids altering Heublein Hotel, 98 Wells St., 6 story, brick and steel. About $75,000. Noted Dec. 16.

Conn., New London—Hospital—D. S. Donnelley, archt., Plant Bldg., receiving bids constructing 3 story, 46 x 98 ft. maternity building and 4 story, 48 x 86 ft. addition to main building, brick, rein.-con. flooring, concrete foundation, on Ocean and Montauk Aves., for Lawrence Memorial Hospital. About $100,000.

N. Y., Buffalo—Schools—Until Jan. 19, by Bd. Educ., building P. S. 21, 3 story, 186 x 450 ft., on Parklake Ave., cost $500,000; P. S. 9, 2 story, on Poplar Ave. and Doat St., $350,000; P. S. 21, 3 story, on Hertel and Camden Aves., $500,000, all rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundations. Associated Architects, Inc., 232 Delaware Ave., archts. and engrs. Noted July 8.

Pa., Butler—Station—Harmony & Short Line Co., Pittsburgh, receiving bids 2 story, 35 x 77 ft., concrete, brick and steel, rein.-con. flooring, on Cunningham St., here. About $75,000. W. G. Wilkens Co., Westinghouse Bldg., Pittsburgh, archts.

Pa., Phila.—Store—B. Miller, 607 South 2d St., receiving bids building 4 story, 27 x 60 ft., brick and steel, at 106 North 2d St. About $75,000. I. W. Levin, Mutual Life Bldg., 10th and Chestnut Sts., Phila., archts.

Pa., Pittsburgh—Office—Until Jan. 3, by J. T. Windrim, archt., Commonwealth Bldg., Phila., building 3 story, 60 x 125 ft., concrete, brick and steel, here, for Bell Telephone Co., 12th and Arch Sts., Phila. About $200,000.

O., Bedford—High School—Until Jan. 15, by Bd. Educ. building 2 story, 100 x 185 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation. About $400,000. Former bids rejected. Noted Dec. 2.

O., Coshocton—Museum—J. H. Johnson receiving bids building 3 story, 42 x 84 ft., brick and steel, brick and concrete foundation, on 3d and Mulberry Sts. Cost between $75,000 and $90,000. Mills, Rhines, Bellman & Nordhoff, 1234 Ohio Bldg., Toledo, archts.

O., Prospect—High School—Until Feb. 8, by Bd. Educ., building 2 story, 60 x 114 ft., brick and concrete. About $125,000. O. D. Howard, 8 East Broad St., Columbus, archt. Noted July 22.

O., Springfield—School—Until Feb. 15, by Bd. Educ., building 2 story, 110 x 128 ft., brick and concrete, on Burnett Rd. About $225,000. O. D. Howard, 8 East Broad St., Columbus, archt. Noted Oct. 21.

Mich., Channing—School—Until Feb. 1, by chairman School Bd., building 2 story, 90 x 100 ft., brick, rein.-con. flooring, concrete foundation. About $75,000. F. E. Parmelee, Iron Mountain, archt.

Wis., Two Rivers — High School — Bd. Educ. receiving bids building 3 story, 115 x 199 ft., brick, rein.-con. and steel, brick foundation. About $400,000. J. D. Chubb, North Dearborn St., Chicago, archt.

Minn., Renville—School—Until Jan. 18, by Bd. Educ. building 2 story, 146 x 273 ft. rein.-con., brick and tile. About $280,000. Croft & Boerner, 1066 Marquette Ave., Minneapolis, archts. Noted Oct. 28.

Neb., Norfolk—Hospital—Until Jan. 10, by E. B. Fairfield, c/o State Hospital Comn., Capitol Bldg., Lincoln, constructing 2 story, 55 x 113 ft. brick and concrete, rein.-con. flooring, at State Hospital for Insane, here. About $75,000.

S. D., Harrold—School—Until Jan. 18, by Bd. Educ., building 2 story, rein.-con., brick and tile. About $100,000. A. E. Groethe, secy. U. L. Freed, Watertown, engr. Noted Oct. 28.

S. D., McIntosh—School—Until Jan. 24, by Bd. Educ., building 2 story, rein.-con., brick and tile. About $150,000. E. J. Geers, clk. G. Issenhuth, Huron, engr.

Mont., Malta—Courthouse—Until Feb. 8 by Phillips Co. building 3 story, rein.-con., brick, tile and stone. About $200,000. F. F. Bossonet, Havre, archt. Noted May 20.

N. M., Albuquerque—Bank and Office—Until Feb. 1, by 1st Natl. Bank, 2nd and Gold Aves., constructing 8 story, 100 x 142 ft. About $500,000. Trost & Trost, 1817 Mills Bldg., El Paso, Tex., archts and engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**R. I., Pawtucket**—Restaurant—J. and P. Coats, Inc., 366 Pine St., let contract building 2 story, 91 x 225 ft. with 41 x 80 ft. ell, concrete, brick and steel, rein.-con. flooring, concrete foundation, on Lonsdale Ave., to A. F. Smiley, Oak Hall Bldg. About $715,000. Noted Dec. 16.

★**N. Y., Ossining**—Prison—State Prison Bd., Albany, let contracts for construction work for addition, here, to G. Colon & Co., 81 East 125th St., New York City, $224,892; heating, to A. B. Barr Co., 6 River St., Yonkers, $21,500; plumbing, to J. J. Kenny Co., 236 West 20th St., New York City, $30,000. Noted Dec. 2.

★**Pa., Chambersburg**—School—Bd. Educ. let contract constructing 3 story, 50 x 120 ft. administration building and 3 story, 39 x 157 ft. dormitory, to have two 37 x 181 ft. wings, brick, at Penn Hall School, to C. E. Cump, Chambersburg. About $250,000. Noted Oct. 28.

★**Pa., Pittsburgh**—Office—Upper Union Mills, 33d St. and Pennsylvania Ave., let contract altering present building and constructing 3 story, 34 x 50 ft., rein.-con. addition, on Smallman St., to Taupet, Bell & Conley, 5814 Ellsworth Ave. About $75,000.

★**O., Lakewood** (Cleveland P. O.)—High School—Bd. Educ. let general contract building 3 story, 110 x 165 ft., rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Jackson Ave. and Clifton Blvd., to Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $287,850; plumbing, to Weiss Plumbing & Heating Co., Cedar Ave., Cleveland, $21,714. Noted Dec. 23.

★**Ill., Anna**—Nurses Home—E. D. Martin, state archt., Springfield, let contract to Robinson Bros., Anna, building 2 story, 45 x 100 ft., concrete and brick, concrete foundation, for Anna State Hospital, here. About $90,000. Noted Dec. 23.

★**Ill., Chicago**—Post Office—H. M. Smith and B. W. Frank, 327 South La Salle St., let contract building 1 story, 100 x 109 ft., concrete and brick, concrete foundation, to Erickson-Johnson Co., 7147 Evans Ave. About $80,000.

★**Ill., Chicago** — School — Bd. Educ. let general contract building 2 story, 60 x 100 ft. rein.-con. addition to Woodrow Wilson School, 23rd St. and 57th Ave., to Cermak & Novotny, 6211 West 22nd St. About $100,000.

★**Ill., Cicero**—School—Bd. Educ. let general contract building 2 story, 60 x 100 ft., rein.-con. addition to D. H. Burnham School, 58th and West 18th Sts., to Schmidt Constr. Co., 133 West Washington St., Chicago. About $100,000. Noted Dec. 16.

★**Wis., Milwaukee**—Bank—Marshall & Illsby Bank, 374 Natl. Ave., let contract building 1 story, 30 x 40 ft. and 25 x 100 ft., rein.-con. and stone additions, rein.-con. flooring, concrete foundations, to Kroening Constr. Co., 221 Grande Ave. About $75,000.

★**Wis., Milwaukee** — Theatre — Saxe Amusement Co., 160 5th St., will remodel 2 story, concrete and brick, on Grand Ave. About $100,000. Work will be done by day labor. Noted Nov. 11.

★**Wis., Wautoma**—High School—School Dist. let contract building 2 story, 30 x 80 ft. and 40 x 80 ft. brick and timber additions, concrete foundations, to C. M. Radley, Wild Rose. About $75,000; cost plus percentage basis.

★**Wis., West Bend**—Church—St. Peter & Paul Roman Catholic Church let contract building 53 x 134 ft., rein.-con and brick, to O. Neitge, Mankato, Minn. About $80,000; cost plus percentage basis.

★**Minn., Ontonagon**—Bank—First Natl Bank let contract building 2 story, 30 x 70 ft. concrete and brick, rein.-con. flooring, concrete foundation, to A. Moorman & Co., 501 Minnesota St., St. Paul. About $75,000. Noted Dec. 16.

★**Neb., Omaha**—Church—West Minister Presbyterian Church, 29th and Mason Sts., let contract building 1 story, 75 x 125 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, to Kleiette Bros., Omaha. About $150,000.

★**Neb., Omaha** — Film Exchange — Home Builders, 18th and Dodge Sts., having plans prepared by J. T. Allen, archt., 224-26 Brandeis Theatre Bldg., for 8 story, 70 x 132 ft., rein.-con., on 18th and Davenport Sts. About $300,000. Work to be done by day labor.

★**Mo., St. Louis** — Hospital — Lutheran Hospital, 3500 Ohio Ave., let contract building 5 story, 40 x 120 ft., brick, concrete and steel addition, to M. C. Bartels Constr. Co., 4208 Gravois Ave. About $130,000. Noted June 10.

★**Okla., Talihina**—Sanitarium—State Bd. Public Affairs, Oklahoma City, let contract constructing 2 story sanitarium for tuberculosis, here, to include administration building, ward building and 2 cottages, to Manhattan Constr. Co., 3d and Fondulac Sts. Muskogee, $91,500. Noted Sept. 16.

★**Okla., Tulsa**—High School—Bd. Educ., 6th and Cincinnati Sts., let general contract building 4 story, 130 x 260 ft., rein.-con., steel and brick, rein.-con. flooring, to J. W. Van Horn, 214 C. C. Cole Bldg., $284,250. Noted Dec. 2.

Cal., Los Angeles—Hospital—Los Angeles Orthopaedic Foundation, Auditorium Bldg., let contract building 2 story, 85 x 104 ft. rein.-con., on Brockman Court, to Richards-Neustadt Co., Trust & Savings Bank Bldg. About $100,000. Noted Jan. 22.

Cal., Piedmont (Oakland P. O.) — High School—Bd. Trustees received bids Dec. 13, building 2 story, rein.-con., from C. Christensen & Son, 353 12th St., Oakland, $139,990; F. J. Westlund, 2207 10th Ave., Oakland, $140,500; Anderson & Ringrose, San Francisco, $148,188.

★**Ont., Toronto**—Synagogue—Beth Jacob Congregation, Manning Chambers, let brick contract for 1 story, brick and stone, rein.-con. flooring, concrete foundation, to Dominion Valley Brickworks, Dominion Bank Bldg.; masonry, to Ontario Bricklaying Co., 223 Palmerston Ave. Total cost about $100,000.

Federal Government Work

PROPOSED WORK

D. C., Wash.—Centrifugal Pump, etc.—U. S. Engineer, 305 Southern Bldg., rejected bids received Nov. 10, furnishing and installing electrically driven centrifugal pump, etc., at filtration plant. Noted Oct. 28.

BIDS DESIRED

N. Y., Brooklyn—Crane Run for Steel Storage—Spec. 4251—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building at Navy Yard, here.

Va., Quantico — Guard House General Service Building, etc.—Spec. 4334—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing at Marine Flying Field, here. Noted Dec. 9.

Tenn., Memphis — Stern-Wheel — Until Jan. 18, by Mississippi River Comn., 1st and 2nd Dists., Custom House, furnishing stern-wheel, steel steamboat "Luther L. Griffith"; advertised in this issue.

Ga., Tybee Island—Quarters—Spec. 4344—Until Jan. 12 by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing quarters and operating building, at Naval Radio Compass Station, here. Noted Dec. 16.

O., Cincinnati—Constructing Steel Hull—Until Jan. 20, by U. S. Engr., War Dept., 2nd Dist., Custom House, constructing or fabricating steel hull for snag boat "Kentucky"; advertised in this issue.

Mich., Grand Rapids—Mailing Vestibule, Extending Driveway, etc.—Until Jan. 10, by Treas. Dept., Wash., D. C., building mailing vestibule and extending driveway, here. J. A. Wetmore, superv. archt.

Mo., St. Louis—Return-Flue Boilers—Until Jan. 17, by Secretary Mississippi River Comn., 1311 International Life Bldg., furnishing 6 return-flue boilers for steamboat; advertised in this issue.

Tex., El Paso—Remodeling Custom House and Court House—Until Jan. 11, by Treas. Dept., Wash., D. C., remodeling, here. J. A. Wetmore, superv. archt.

Tex., Galveston—Dredging—Until Jan. 20, by U. S. Engineer, dredging Houston ship channel; advertised in this issue.

Federal Government Work (Continued)

N. M., Santa Fe—Post Office—Until Jan. 27, by Treas. Dept., Wash., D. C., building U. S. Post Office, here. J. A. Wetmore, superv. archt.

Ore., Astoria — Radio Building — Spec. 4351—Until Jan. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing here. Noted Dec. 16.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Me., Bar Harbor—Electric Distribution System—Spec. 4341—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids Dec. 22, installing at Radio Station, Otter Cliffs, here, (1) work complete, from E. S. Downs Co., 9 Campbell St., Newark, N. J., $18,951 (180 days); G. E. Eng. Co., 22 Laight St., New York City, $20,813 (180 days); J. R. Proctor Co., 74 Courtlandt St., New York City, $21,620 (180 days). Noted Dec. 9.

D. C., Wash.—Remodeling and Altering Building—Bureau Yards & Docks received bids remodeling and altering Building "F," from Skinker & Garrett, 1415 G St., $14,000; W. E. Mooney, Evans Bldg., $15,750; Loehler Co., Franklin Natl. Bank Bldg., $15,850.

D. C., Wash.—Separation of Water Drainage System—Treas. Dept. received bids Dec. 22, building water drainage system and separating sanitary from water system in Auditors Bldg., from Federal Heating Co., 310 13th St., N. W., $17,597 (80 days); I. Freund, 1315 7th St., N. W., $17,899 (60 days); W. Wilby, Selma, Ala., $19,245 (150 days). Noted Dec. 9.

D. C., Wash. — Mechanical Equipment—Treas. Dept. received bids Dec. 22, furnishing in Mt. Alto Pub. Health Hospital, from Federal Heating Co., 310 13th St., N. W., $87,327; S. W. Rittenhouse, 1316 Harvard St., N. W., $91,226; Standard Eng. Co.,

Pa., Phila.—Dredging—U. S. Engineer, Room 815, Witherspoon Bldg., 1321 Walnut St., received bids Dec. 20, dredging in Delaware River, in lower part of Phila. Harbor, involving 600,000 cu.yd. excav., scow measurement, from Amer. Dredging Co., Marine & Merchants Bldg., $0.29 per cu.yd.; Great Lakes Dredge & Dock Co., Greenwick Piers, $0.68½.

★Mich., Kalamazoo—Remodeling Post Office, etc.—Treas. Dept., Wash., D. C., let contract remodeling and building mailing vestibule and driveway at Post Office, here, to W. MacDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $16,931. Noted Dec. 16.

★Cal., San Diego—Refrigerating Equipment—Spec. 4303—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in Marine Barracks, at Naval Base, here, to York California Constr. Co., 308 3rd St., Los Angeles, $50,725 (120 days). Noted Dec. 9.

Miscellaneous

PROPOSED WORK

Playground—Dorchester (Boston P. O.) Mass.—City plans to excavate and grade 5 or 6 acres ground on Adams St., for playground. About $25,000. J. J. Murphy, 33 Beacon St., Boston, engr.

Equipment—New York, N. Y.—M. Hulbert, comr. docks, Pier "A," ft. of Battery Pl., North River, rejected bids received Dec. 9, furnishing and installing freight handling equipment on pier at ft. of East 5th St. East River. Contr. A, cargo beams and fittings; Contr. B, electric work; Contr. C, winches. Work will be readvertised. Noted Dec. 16.

Bicycle Stadium—Newark, N. J.—Books & Saddlemire, Inc., 41 Liberty St., New York City, having sketches made by Litchfield & Rogers, archts. and engrs., 477 5th Ave., New York City, for brick, stone and rein.-con. on Frelinghuysen Ave. near Dayton Ave. About $250,000.

Stadium—Nashville, Tenn.—Vanderbilt Athletic Assn. plans to build rein.-con. stadium on Kinsington Pl. About $100,000. Architect not selected.

Park—Columbus, O.—City having tentative plans prepared for park along east bank of Scioto River between Town and Broad Sts. About $150,000 appropriated for project. R. H. Simpson, city engr.

Road Machinery — La Crosse, Wis.—La Crosse Co. vetoed $51,000 bonds to purchase road machinery, to include 1 oiler truck, 1 roller, 2 crushers, heavy grader and tractor and power equipment for quarry. J. Hintgen, comr.

Patrol Machinery — Ladysmith, Wis. — Rusk Co. voted $1,500 bonds to purchase patrol machinery for 1921. P. Koehler, comr.

Dam and Transmission Lines—Ashland, Wis.—L. E. Myers Co., Ashland, plans to build concrete dam across Flambeau River between Ladysmith and Park Falls, also install transmission lines to serve light and power to upper state cities. About $3,000,000. L. E. Myers, Monadnock Bldg., Chicago, pres.

Machinery, etc.—Sheboygan, Wis.—Sheboygan Co. appropriated $50,000 to purchase machinery and equipment for gravel pits and $5,000 for road machinery. G. W. Ubbelohde, Court House, comr. Private plans.

Incinerator—Austin, Tex.—City defeated $25,000 bond issue to build garbage incinerator. New election will be held soon. C. E. Leonard, city engr. Noted Nov. 18.

Swimming Pool—Austin, Tex.—City defeated $20,000 bond issue to build swimming pool. New election will be held soon. C. E. Leonard, city engr. Noted Nov. 18.

Dam—Pomona, Cal.—City plans to build loose rock and earth fill flood control dam, 55 ft. concrete wall, 15 ft. below and 35 ft. above stream bed, at junction of Palmers and Cabel Canyons. About $348,500. Engineer not selected.

Wharf, Transit Shed, Etc.—San Francisco, Cal.—State Harbor Comn., Ferry Bldg., having plans prepared for 100 x 1,000 ft. wharf, 6 story, 100 x 800 ft. rein.-con. warehouse and transit shed, double platform on water side with traveling cranes and served with 3 tracks of Belt Line R.R., also reclaiming 5 acres between 3rd St., Channel St. and Pier 46, involving 250,000 cu.yd. earth fill. About $2,500,000. F. G. White, Ferry Bldg. engr.

Road Roller—Hamilton, Ont.—Barton Twp. plans to purchase steam road roller. About $6,000. A. J. Bryant, Hamilton, clk.

BIDS DESIRED

Crib—Trenton, N. J.—Until Jan. 4, by Bd. Freeholders Mercer Co., building stone and timber crib for protection to draw span of Olden Ave. bridge over Delaware and Raritan Canal. H. F. Harris, co.-engr.; advertised in this issue.

Laundry Equipment, etc. — Binghamton, N. Y.—Until Jan. 12, by State Hospital Comn., Capitol, Albany, for laundry machinery and electric elevator, for State Hospital, here. E. S. Elwood, secy.; advertised in this issue.

Plumbing and Drainage Brooklyn, — N. Y.—Until Jan. 6, by Dept. Pub. Welfare, 10th floor, Municipal Bldg., Manhattan, furnishing labor and material to complete Contr. No. 48379 (Dept. of Finance) which is for Contr. 2, plumbing and drainage work for erection of New Cumberland St. Hospital, Brooklyn. B. S. Coler, comr.

Asphalt Wearing Surface Sand, etc.—New York, N. Y.—Until Jan. 6, by H. H. Curran, pres. Manhattan Boro., furnishing and delivering, (Contr. 1) 7,000 cu.yd. asphalt wearing sand, (Contr. 2) 3,000 cu.yd. binder stone, (Contr. 3) 1,200 cu.yd. coarse aggregate for concrete, (Contr. 4) 400 tons coal tar paving cement, (Contr. 5) 400 tons asphaltic paving cement, (Contr. 6) 2,000 tons limestone dust, (Contr. 7) 2,000 cu.yd. paving sand, (Contr. 8) 1,500 cu.yd. paving grits, (Contr. 9) 10,000 bags Portland cement, (Contr. 10) 300,000 gal. refined asphalt, (Contr. 11) 200,000 gal. wood paving block.

Clay, Cement and Broken Stone, etc.—New York, N. Y.—Until Jan. 6, by G. A. Whalen, comr. Plant & Structures, Room 526, Municipal Bldg., furnishing and delivering (1) clay, cement, broken stone, sand, lime and plaster for Depts. of Parks in Manhattan, Brooklyn and Queens, Pub. Welfare & Water Supply, Gas & Electricity; (2) steel stringers; (3) girders to Dept. Plant & Structures.

Cast Iron Pipe, Valves, etc. — Douglas, Wyo.—Until Jan. 7, by E. R. Rouse, town clk., furnishing c.i. pipe valves and special castings, also furnishing labor and material for constructing c.i. collecting system and suction well. Prince & Nixon, Peters Trust Bldg., Omaha, Neb., engrs.

Culverts—Ontario—Until Jan. 10, by W. A. McLean, deputy minister of public highways, Toronto, building concrete structures on Provincial Highway in following townships: Contr. 192, Gloucester; Contr. 193, Cumberland; Contr. 194, Clarence; Contr. 195, North Plantagenet A; Contr. 196, North Plantagenet B; Contr. 197, Alfred, Longueuil and L'Orignal; Contr. 198, East and West Hawkesbury; Contr. 199, East Hawkesbury; Contr. 212, Toronto; Contr. 213, Toronto and Trafalgar; Contr. 215, Nelson; Contr. 216, Nelson and East Flamboro; Contr. 217, Toronto and Chinquacousy; Contr. 218, East and West Flamboro; Contr. 219, West Flamboro, Beverly, and Waterloo; Contr. 220, Waterloo, Guelph and Puslinch; Contr. 241, Ellice, Hibbert, Logan and Fullerton; Contr. 242, Hullett, McKillop, and Tuckersmith; Contr. 243, Hullett and Goderich; Contr. 244, Goderich; Contr. 246, Warwick Sect. B; Contr. 247, London and Buddulph; Contr. 248, London; Contr. 306, East Williams; Contr. 307, West Williams; Contr. 252, Barton and Glanford; Contr. 253, Glandford and Seneca; Contr. 254, Oneida; Contr. 255, Oneida and Walpole; Contr. 249, Louth and Grantham; Contr. 250, Niagara Sect. C; Contr. 251, Niagara and Stamford; Contr. 256, Stamford and Thorold; Contr. 257, Crowland and Wainfleet; Contr. 258, Wainfleet; Contr. 259, Moulton and Canboro; Contr. 260, Canboro; Contr. 261, Walpole; Contr. 178, Pittsburg Sect. C; Contr. 179, Pittsburg Sect. D; Contr. 180, Pittsburg Sect. E; Contr. 181, Leeds, Sect. D.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Dock Wall—Buffalo, N. Y.—E. S. Walsh, supt. Pub. Wks., Capitol, Albany, let contract building dock wall around Ohio Basin, here, Terminal Contr. 53-A revised, to Great Lakes Dock & Dredge C., Morgan Bldg. About $435,000. Noted Nov. 18.

★Pier Fender, etc.—New York, N. Y.—G. A. Whalen, comr. Plant & Structures, Municipal Bldg., let contract repairing pier fender, southeast timber bulkhead and pile clusters, at Greenpoint Ave. Bridge over Newton Creek, to A. M. Spooner & Son, Pier 11, North River, $24,465. Noted Dec. 2.

Pavilions—Randalls Island (New York P. O.), N. Y.—Dept. Pub. Welfare, Municipal Bldg., New York City, received bids Dec. 20, altering (1) Tredgold Pavilion (2) Nightingale Pavilion, (3) combined, from Ansahr Constr. Co., (1) $26,860; Bertwin Constr. Co., 103 Park Ave., New York City, (1) $31,750, (2) $33,000, (3) $64,750; W. W. Constr. Co., (1) $33,950, (2) $32,950, (3) $65,800; S. Smith, Jr., 150 East 51st St., New York City, (1) $33,483, (2) $34,110, (3) $67,593. Noted Dec. 16.

★Hydraulic and Electric Machinery—St. John, N. B.—Water Power Comn. let contracts furnishing hydraulic machinery, to Morgan Smith Co., St. John, $93,056; electric machinery, to Canadian General Electric Co., 107 Park St., Peterboro, $162,000.

★Pipe—Vancouver, B. C.—City let contract furnishing 2,650 ft. 16 in. steel riveted pipe, to Vulcan Iron Wks., Granville Island, Vancouver, $5.15 per ft.

Applications before the Federal Power Commission, Washington, D. C., from November 27 up to and including December 18.

122. City of Los Angeles, Dept. of Pub. Serv., 603 Knickerbocker Bldg., Los Angeles, Cal. Preliminary permit for dam and reservoir, conduit and power house on South Fork, Kings River, just above location of Project 98, City of Los Angeles, for public utility.

123. City of Los Angeles, Dept. of Pub. Serv., 603 Knickerbocker Bldg., Los Angeles, Cal. Preliminary permit for dam and storage reservoir, diversion dam, conduits and power houses at Owens River Gorge, in Mono and Inyo Counties, Cal., for public utility.

124. Southern Sierras Power Co., c/o W. L. Huber, First National Bank Bldg., San Francisco, Cal. Preliminary permit to divert water from North Fork to South Fork of Whitewater River, second diversion dam and 12-mi. conduit to power house on main river in Sec. 5, T. 2 S., R. 3 E., S.B.M. Third diversion dam and 12-mi. conduit to second power house on Whitewater River in Sec. 26, T. 2 S., R. 3 E., in San Bernardino and Riverside Counties, Cal., for public utility.

125. Southern Sierras Power Co., c/o W. L. Huber, First National Bank Bldg., San Francisco, Cal. Preliminary permit for three diversion dams and 7-mi. conduit and power house at headwaters San Gabriel River, Los Angeles County, Cal., for public utility.

126. John R. Love and G. A. von Brecht, c/o J. D. Fisher, Colorado Springs, Col. License for dam, diversion, tunnel, power house, tailrace, transformer house and transmission line, Salmon River, Custer County, Idaho, for mining and milling.

127. Goodwin M. Trent, 317 Sharon Bldg., San Francisco, Cal. Preliminary permit for dam and reservoir, sec. 25, T. 11 N., R. 18 E., M.D.M., 13½-mi. pipe line, power house in Sec. 27, T. 12 N., R. 19 E., East Fork Carson River, Alpine County, Cal., for mining, reclamation, public utility.

128. City of Los Angeles, Dept. of Pub. Serv., 603 Knickerbocker Bldg., Los Angeles, Cal. Preliminary permit for dam, storage reservoir, conduit and power house, South Fork of Kern River, Tulare County, Cal., for public utility.

129. William R. Rust, 1208 Fidelity Bldg., Tacoma, Wash. Preliminary permit for small diversion dam, 2,000-ft. pipe line and power house with 250-hp. capacity in Cann Creek, 1 mi. from Lisianski Inlet, Sitka Mining District, Alaska, for mining purposes.

Volume 85 December 30, 1920 Number 27

Engineering News-Record

A CONSOLIDATION OF ENGINEERING NEWS AND ENGINEERING RECORD
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Earth in Foundations Considered as an Elastic Solid 1268
BY LAZARUS WHITE.
DEDUCTIONS FROM ANGLE of repose theory disputed—Earth not to be regarded as non-cohesive and granular—Tests cited to support new theory.
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INDIANA'S PRACTICE.
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UNDER INTERNATIONAL AGREEMENT flow of St. Mary and Milk Rivers systematically shared by Montana and Provinces.
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Factors Influencing Ultra Violet Light Water Treatment 1283
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Terms of New Cost-Plus Contract of Hetch Hetchy Tunnel Work 1285
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Test of Trent Activated-Sludge Devices at Pasadena 1286
BY R. V. ORBISON.
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GUIDE to estimating construction equipment expense, prepared by A. G. C. Committee on Methods.
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Three Sites Considered for San Francisco Naval Base 1290
ENGINEERING CONSIDERATIONS govern in selection of location for large plant to cost from $25,000,000 to $50,000,000.
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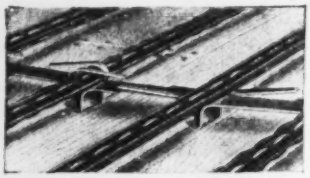
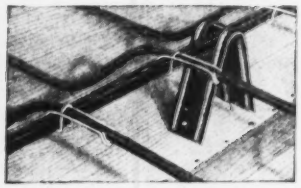
ROUND NOSE CURB-BAR



SLAB BAR-SPACER

For supporting and spacing bars in the slab.



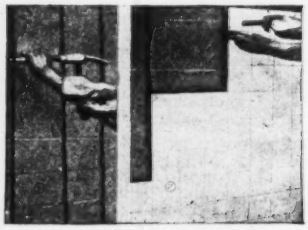
HY-CHAIR

For supporting head rods over columns and over direct bands in flat slab and bent up bars over beams in beam and girder construction.

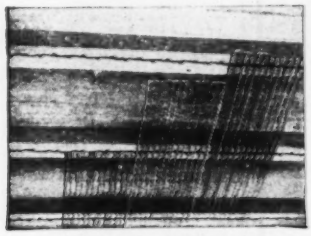
BEAM BAR-SPACER

For supporting and spacing bars in beams and girders.

BRICK VENEERING



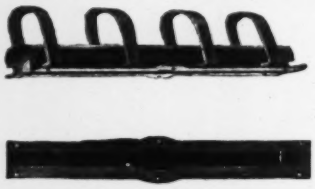
TILE WAINSCOTING



STEEL TILE CEILING

SECURITY-ANCHOR

FOR BONDING BRICK VENEER, TILE, ETC., HOLDING SUSPENDED CEILINGS, FLOOR SCREEDS, ETC.



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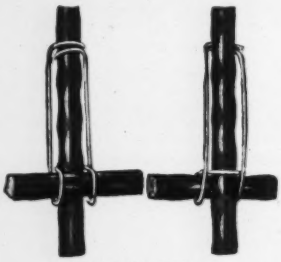

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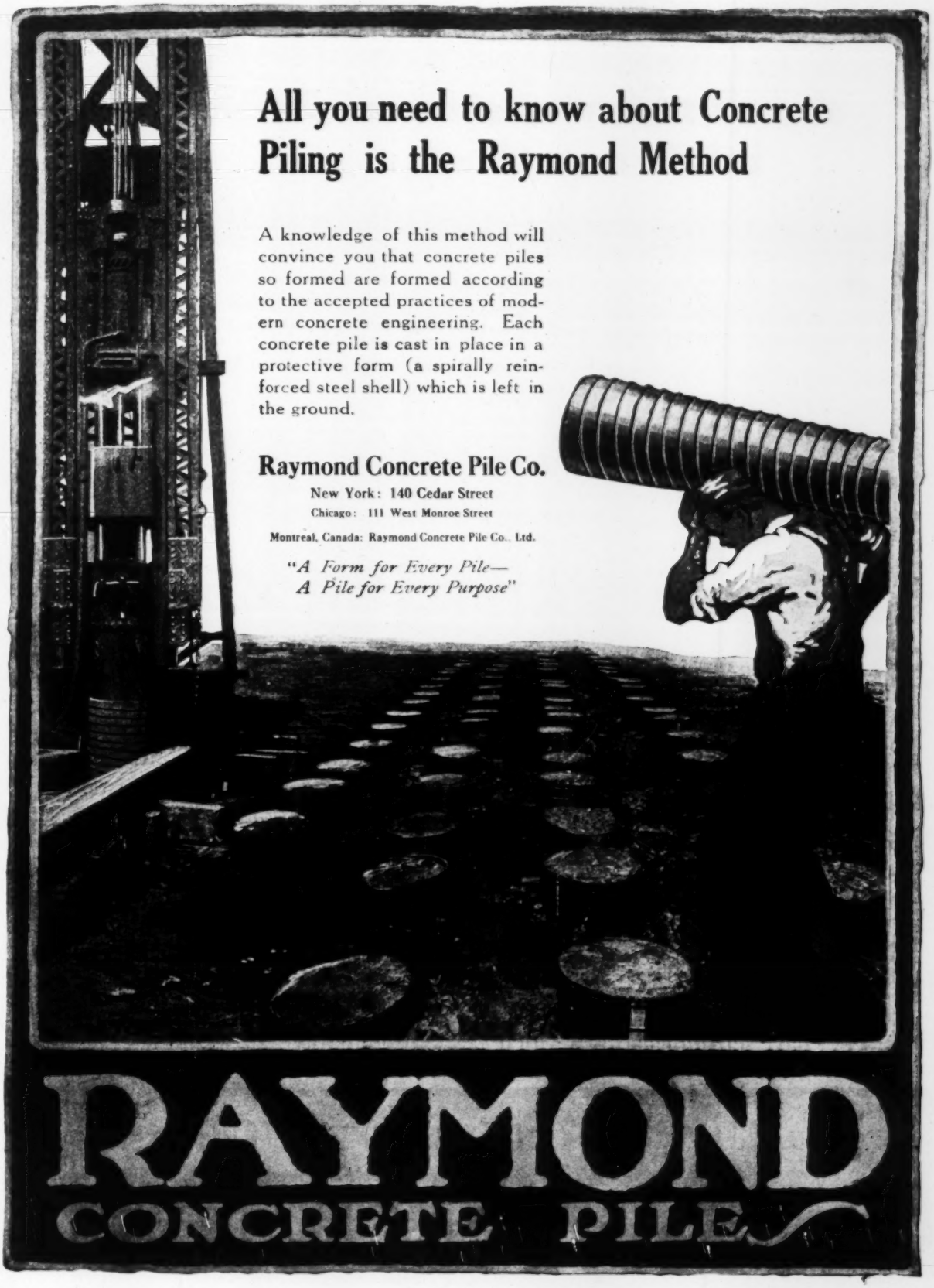
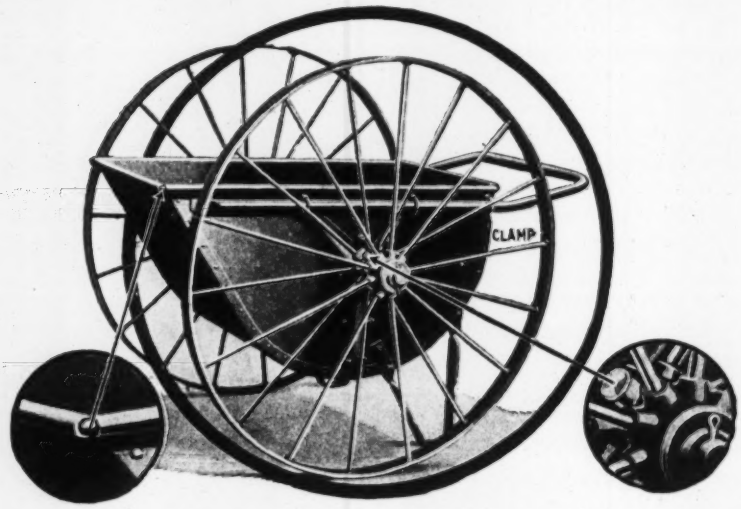

All you need to know about Concrete Piling is the Raymond Method
A knowledge of this method will convince you that concrete piles so formed are formed according to the accepted practices of modern concrete engineering. Each concrete pile is cast in place in a protective form (a spirally reinforced steel shell) which is left in the ground.
Raymond Concrete Pile Co.
New York: 140 Cedar Street
Chicago: 111 West Monroe Street
Montreal, Canada: Raymond Concrete Pile Co., Ltd.
"A Form for Every Pile—
A Pile for Every Purpose"
RAYMOND
CONCRETE PILE

Sterling

STERLING ON A WHEELBARROW MEANS MORE THAN STERLING ON SILVER



Sterling Concrete Carts

Sterling Carts Are Always on the Job

Pushing along day after day with larger loads and making better time the Sterling Concrete Cart proves it's in a class by itself.

The longer you wheel 'em the easier they wheel—they stand up under the roughest toughest service you can put them to and you will never get even a squeak out of a Sterling.

They have self-lubricating 42-inch wheels—a heavy 12 gauge tray, reinforced with a solid continuous ½- inch rod—the handles extend the full length of the tray and are clamped on not bolted.

Any gang of men will wheel larger loads and make more trips with a Sterling Concrete Cart because they are better balanced and easier to push than any other cart on the market.

Sterling Wheelbarrow Company

NEW YORK BOSTON CLEVELAND — MILWAUKEE, WIS. — DETROIT CHICAGO ST. LOUIS

EXPORT DEPARTMENT
ALMACOA ALLIED MACHINERY COMPANY OF AMERICA ALMACOA

Light Weight Construction for Light Loads

Does it not seem uneconomical to design a floor construction which weighs nearly as much as the load it supports? Yet this is what must be done with many types of fireproof construction to support loads such as occur in apartment houses, schools, hotels, office buildings, etc. A great part of the materials of construction is thus used to support itself.

The light weight of Truscon Pressed Steel makes it ideal for light-occupancy buildings. The beams are light in weight and correspondingly easy to handle, while only a minimum of materials is required for the floor and ceiling. All members are shop fabricated, saving field labor. Merely set the beams in place, attach Hy-Rib Lath and apply plaster and concrete. No centering nor forms are required.

Truscon Pressed Steel Construction is fireproof and permanent and economical in all respects. It is the ideal construction for apartment buildings, schools, stores, hotels, etc. Endorsed by successful users in many important buildings.

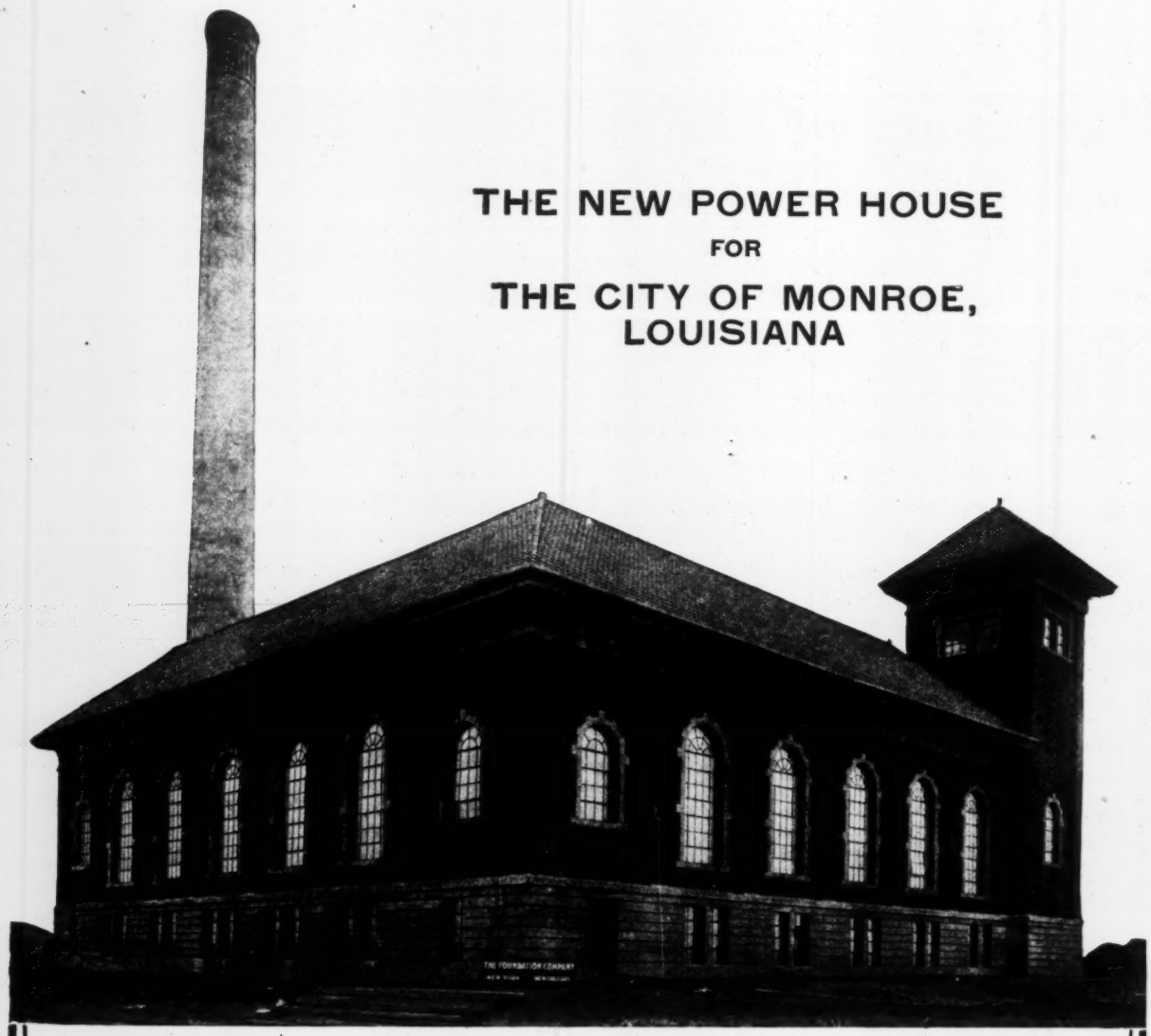
On request, we will gladly furnish complete information, catalog, etc.
Structural Pressed Steel Dept.

TRUSCON STEEL COMPANY
(FORMERLY TRUSSED CONCRETE STEEL CO.)
YOUNGSTOWN, OHIO.
WAREHOUSES AND REPRESENTATIVES IN PRINCIPAL CITIES
Reinforcing Steel Metal Lath, Steel Windows, Steel Buildings, Pressed Steel, Cement Tile, Etc.

Truscon Pressed Steel Joists and Studs

TRUSCON STEEL CO.
TRUSCON
BUILDING PRODUCTS

THE NEW POWER HOUSE
FOR
THE CITY OF MONROE, LOUISIANA



The economical construction of any moderate sized plant such as the Power House for the City of Monroe depends largely upon the contractor's ability to man the job with an aggressive, well-trained organization.

Such an organization can be had only by the contractor who offers his men continuous employment. Eliminate the intangible but costly "drag" by employing the contractor whose forces have other good jobs awaiting them when yours is completed. This all important requirement is fully met by

THE FOUNDATION COMPANY
CITY OF NEW YORK

ATLANTA
NEW ORLEANS
CHICAGO

SAN FRANCISCO
PITTSBURGH
DETROIT

VANCOUVER, B. C.
MONTREAL, CANADA
PARIS, FRANCE

LIMA, PERU
HAVANA, CUBA
TAMPICO, MEXICO

BUILDERS OF **SUPERSTRUCTURES** AS WELL AS **SUBSTRUCTURES**

The P & H Excavator-Crane

AS A DRAGLINE

The P & H excavator-crane is a super standard dragline machine. It has a 30-foot boom ½ yard dragline bucket with a 9,500 pound dragline pull,—an operating speed of 100 feet per minute and non-clogging corduroy traction.

AS A BACKFILLER

Equipped with a self acting scraper bucket an operator (not a licensed engineer) and one man can backfill large quantities of material in a day. Operating expense is low. All steel construction and careful supervision reduce breakdowns to a minimum.

AS A CRANE

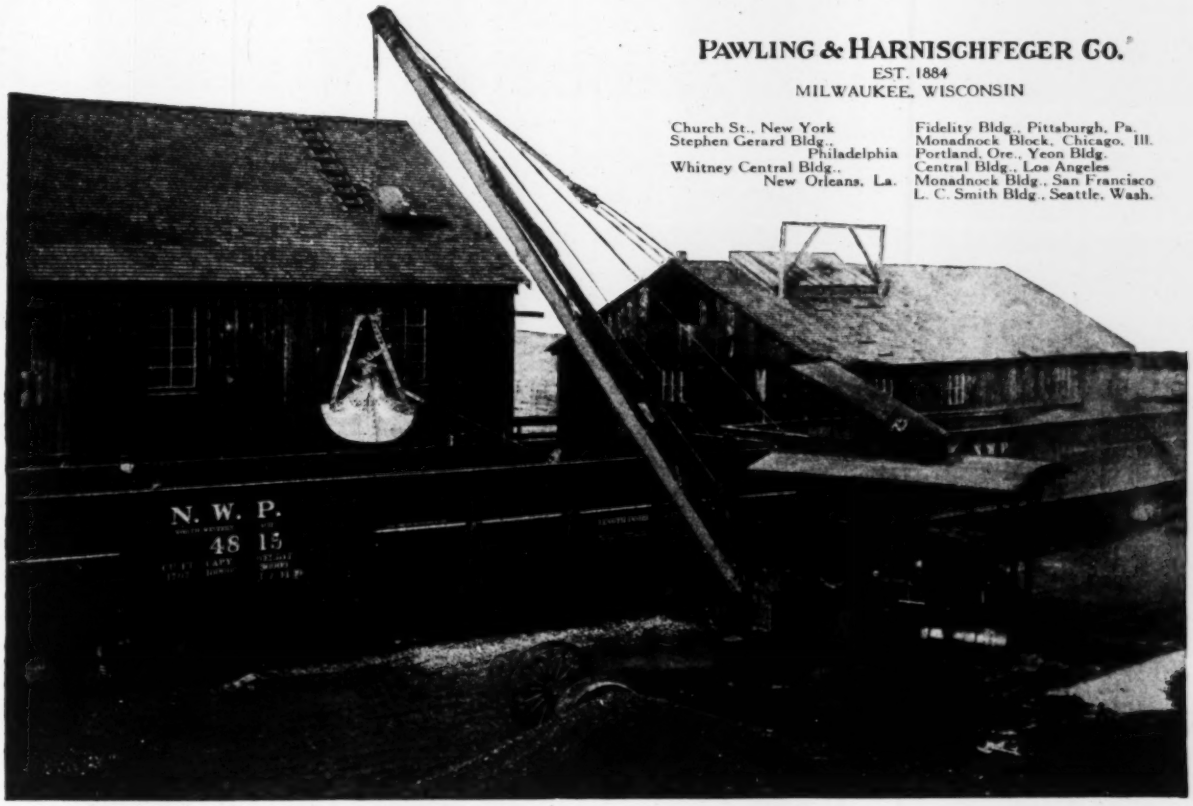
Equipped with a hook or other grappling device the P and H instantly becomes a handy man on any job. It has ample power and does not require a licensed operator to run it.

AS A CLAM SHELL

For convenience and economy the P and H excavator crane equipped as a clam shell is in a class by itself For handling any loose material you have a machine that you will recognize at once as being efficient and economical.

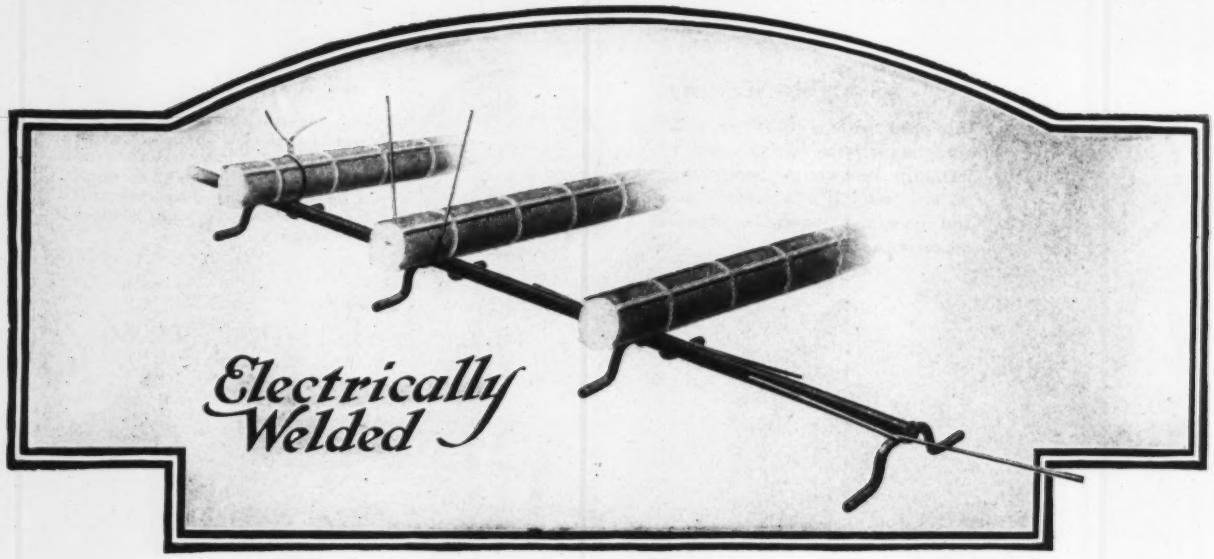
PAWLING & HARNISCHFEGER CO.
EST. 1884
MILWAUKEE, WISCONSIN

Church St., New York
Stephen Gerard Bldg., Philadelphia
Whitney Central Bldg., New Orleans, La.
Fidelity Bldg., Pittsburgh, Pa.
Monadnock Block, Chicago, Ill.
Portland, Ore., Yeon Bldg.
Central Bldg., Los Angeles
Monadnock Bldg., San Francisco
L. C. Smith Bldg., Seattle, Wash.



P&H — excavators — back-fillers - tampers

KALMAN SLAB SPACERS



Spacers That Stand Up

Stiff steel rods with strong wire legs at bar locations to support and hold slab reinforcement exactly where it belongs.

Tie wires attached for rapid fastening of bars.

Made for SERVICE, in lengths and spacings to correctly carry out your design.

These spacers will NOT tip over, dig into forms, collapse when stepped on or obstruct flow of concrete.

Made Straight *Shipped Straight* *Reach the Job Straight*

KALMAN GRIP BARS
SHOP BENDING
SPIRALS

KALMAN SERVICE

BEAM CHAIRS
RIB CHAIRS
BAR CLIPS

PAUL J. KALMAN COMPANY INC.

REINFORCING STEEL AND CONCRETE ACCESSORIES

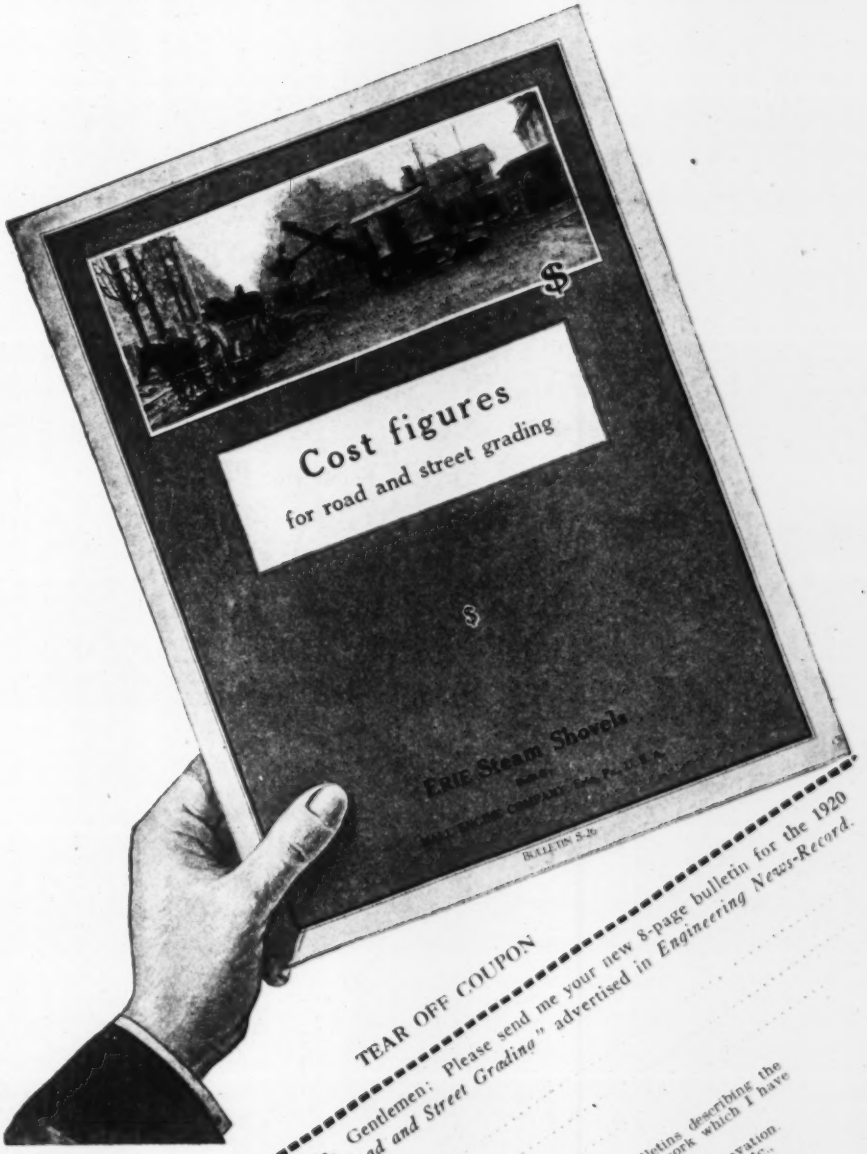
22 West Monroe St. Chicago, Ill.

KANSAS CITY MILWAUKEE MINNEAPOLIS ST. PAUL

1920 Edition—
Cost Figures
for Road and Street Grading

JUST off the press

A new 8-page bulletin giving costs (1920 Season) on sub-grade excavation. Also costs of handling road materials—figured on 1920 basis



WE will be glad to send you a copy without any obligation on your part. Write your name on coupon and ma to

BALL ENGINE CO., Erie, Pa., U. S. A.

Builders of ERIE Steam Shovels, Locomotive Cranes, ERIE Railway Ditchers.

ERIE Revolving Shovels BALL

TEAR OFF COUPON

Ball Engine Co., Erie, Pa. Gentlemen: Please send me your new 8-page bulletin for the 1920 Season: "*Cost Figures for Road and Street Grading*" advertised in *Engineering News-Record*.

Name .....

Address .....

Also please send me special bulletins describing the ERIE Shovel on the classes of work which I have checked below:

☐Trench digging ☐Cellar excavation
☐Handling gravel, sand, stone, etc., with clam-shell bucket.
☐Excavating sand and gravel clay and shale, etc.
Coal Stripping.

WHITLOCK Guaranteed CORDAGE

AMERICAN INDUSTRY MUST LOWER ITS OPERATION AND PRODUCTION COSTS. THEREFORE BUYERS OF ROPE FOR FACTORIES, FARMS AND STEAMSHIP LINES ARE DEMANDING WHITLOCK CORDAGE. THEY KNOW IT IS STRONGER, LASTS LONGER, AND ACTUALLY COSTS LESS BECAUSE IT HAS GREATER LENGTH PER POUND. THEY VISIT THE DEALER WHO CAN SUPPLY THEIR NEEDS.

The Rope that Endures
WHITLOCK
ALL-MANILA

Let us tell you rope facts you should know

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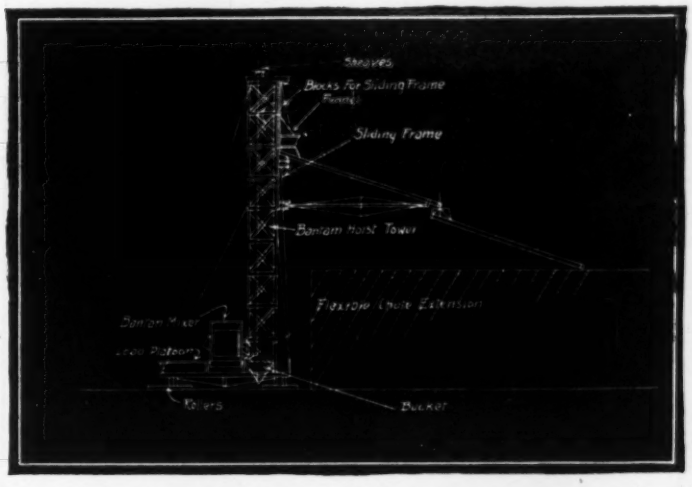
46 South Street, New York

FACTORY AND WAREHOUSES: JERSEY CITY, N. J.

Branches: CHICAGO, BOSTON, HOUSTON and KANSAS CITY

A Portable Plant for a Housing Project



Bring Your Concrete Problems to Ransome

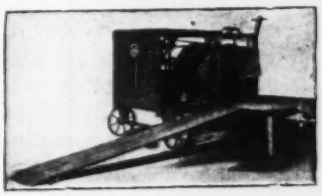
It's a Ransome Engineer's job to solve plant problems.

Here's one of the famous Ransome Bantam Mixers mounted on a platform, together with a Ransome Bantam Hoist Tower, Bantam Hoist Bucket and Ransome High Carbon Steel Chutes, the entire plant moving on rollers.

The contractor for whom this layout was made had a whole block of one-story houses to build. Ransome Engineers knew the "big little Ransome Bantam" was the most economical mixer to use and planned the plant on that basis.

It's another case where the fact that Ransome makes every kind of concrete machinery enabled Ransome Engineers to select the equipment best suited to the job, rather than to have to try to fit the job to a limited range of equipment.

Get the Ransome Bantam Bulletin—No. 103



7-8 Ransome Improved Bantam Mixer —With Platform and Runways.

RANSOME

Ransome

CONCRETE MACHINERY CO.

1750 SECOND ST. DUNELLEN NEW JERSEY.

Manufacturers of Mixers, Pavers, Pneumatic Mixers, Chuting Plants, Hoist Buckets, Bins, Cars, Carts, etc

31-175

Decking the roof of St. Louis Malleable Castings Company's Plant, St. Louis, Mo., with 70,000 sq. ft. of 5-foot Long Span Lap Joint Channel Type Pyrobar Tile; Frank D. Chase, Inc., Engineers

2,000,000 Square Feet of U.S. PYROBAR Roof Tile

Do you think that Frank D. Chase, Inc., Engineers, would have used a total of 2,000,000 square feet of Pyrobar in three years if Pyrobar did not give absolute satisfaction?

Roof decks on industrial plants have a difficult task to perform, and these engineers have recognized by their repeated specification of Pyrobar Tile that Pyrobar meets the general and special requirements better than any other roof decking material.

They will tell you that Pyrobar's light weight saves a big percentage of its cost in steel framing and erection labor. They will testify that Pyrobar is fireproof, that it stops condensation, and that it insulates against heat and cold. And because of its low conductivity it saves a considerable sum both in initial heating installation and in fuel costs.

Pyrobar with its white, light-reflecting undersurface is used on every type of industrial roof—monitor, sawtooth, steep pitch and flat.

We erect Pyrobar. Consult with us on your roof decking problems, and let us submit an estimate. Bulletins on the different types of Pyrobar are sent on request.

UNITED STATES GYPSUM COMPANY

World's Largest Producers of Gypsum Products

General Offices: Dept. J, 205 West Monroe Street, Chicago, Illinois

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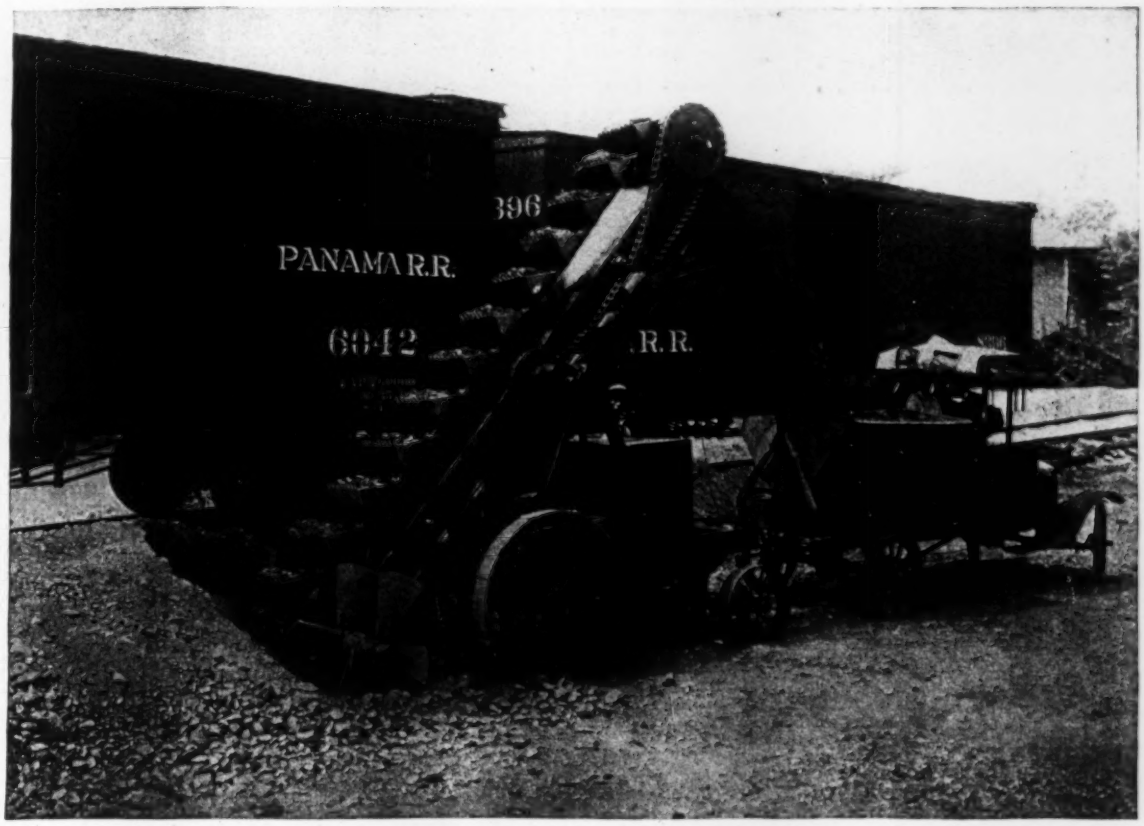
New York, N. Y., Buffalo, N. Y., Boston, Mass., Washington, D. C., Philadelphia, Pa., Pittsburgh, Pa., Cleveland, Ohio, Cincinnati, Ohio, Detroit, Michigan, Milwaukee, Wisconsin, Minneapolis, Minnesota, St. Louis, Missouri, Kansas City, Missouri, Omaha, Nebraska, Denver, Colorado, Los Angeles, California.

MINES AND MILLS

Oakfield, N. Y., Plasterco, Va., Cleveland, O., Gypsum, O., Genoa, O., Detroit, Mich., Alabaster, Mich., Grand Rapids, Mich., Milwaukee, Wis., Fort Dodge, Ia., Blue Rapids, Kansas, Southard, Okla., Eldorado, Okla., Piedmont, South Dakota, Loveland, Colorado, Denver, Colorado, Arden, Nevada, Amboy, Calif.



FIRST SEE THE DIFFERENCE!

IF you buy a wagon loader, your object for doing so will be to save labor, aid labor, increase your output, get more efficiency from your trucks and other equipment, and last but not least, to make better profits for yourself. But do you believe that in purchasing *any* machine called a "wagon loader" you will succeed in attaining these desirable aims?

Discouraging sincere and hopeful persons is anything but pleasant—yet they must be told—facts from experience—that they will surely make sorry mistakes, and poor investment of their capital if they buy ANY wagon loader.

Make a little effort and learn for yourself why there is so *much difference* between *any* wagon loader and the

HAISS "Path Digging" Wagon Loader

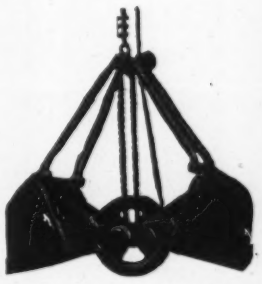
There is not space to explain all the differences, but these are the principal ones:

1. The patented Feeding Propellers are compelled to load fully, each passing bucket on the elevator.
2. The same Propeller Blades cut out a clean "path" into the material pile for the slow "crowding" and advancing loader wheels.
3. The "crowding" motion is developed by power drive, and may be in a straight or curved line.
4. No men are needed to shovel to the buckets.
5. The output is steady—at a speed of 1 cu. yd. per minute.
6. The power cost is less than 1c. per cu. yd. handled.
7. The Haiss Loader is Self-Propelled in both directions, and is equipped with the steering mechanism as on large auto trucks.
8. Built with engines from 10 to 30 hp. and with clearance heights under the loading chutes from 8-ft. 0-in. to 16-ft. 0-in.

Therefore, with every important operation on the "Path Digging" Wagon Loader accomplished by machinery and power, your own reasoning will convince you that efficiency and profits will be a reality and not a disappointment when a Haiss "Path Digging" Wagon Loader is operating at your plant.

New Booklet No. 820 is free; it tells how to solve a Problem in Profits. Write for it on your business stationery.

HAISS
Clam Shell
DIGGING BUCKETS

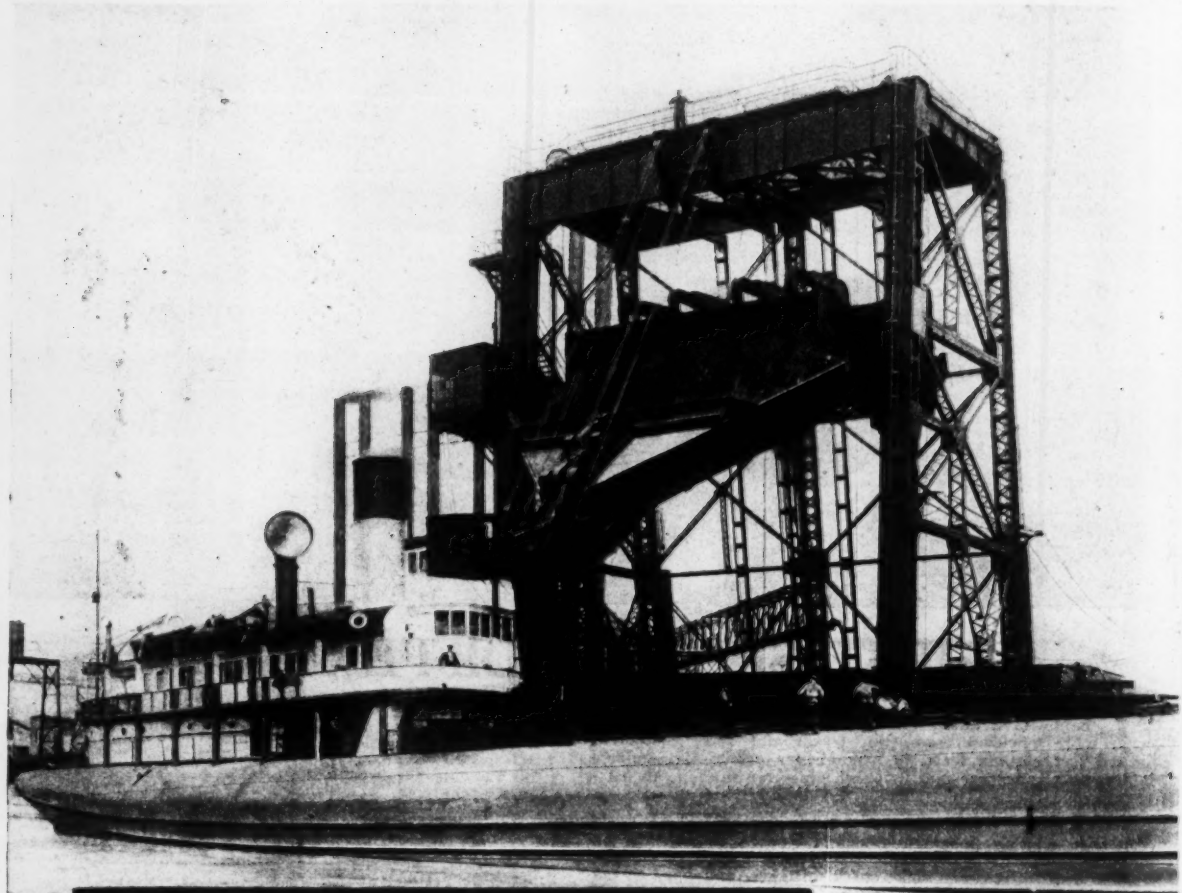


For Every Purpose:

Unloading barges, R.R. cars, reclaiming from ground storage, excavating, dredging, filling in, transferring. Handle coal, sand, gravel, crushed stone, coke, ashes, chemicals, lime, fertilizers, earth, ores, and similar materials. Haiss buckets are built of cast steel, steel plate, bronze bushings, and steel flat link side chains. Used by the largest corporations and the Federal Government. Write for Booklet No. 719.

The Geo. Haiss Mfg. Co., Inc.
140th St. and Rider Ave., New York City

LOCOMOTIVE CRANES
CLAM SHELL BUCKETS - SHIPBUILDING CRANES
CAR DUMPERS PILE DRIVERS
THE McMYLER INTERSTATE CO.
CLEVELAND OHIO



A Picture for Crane Buyers

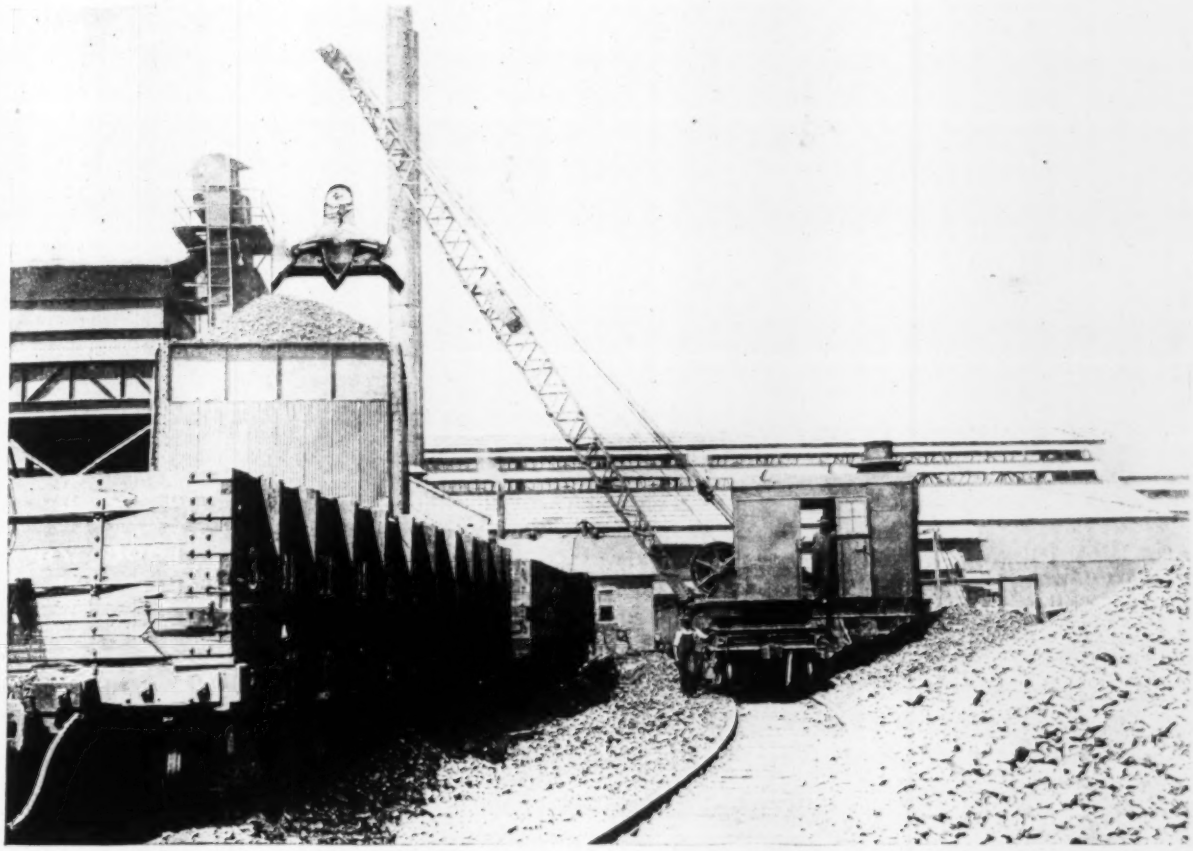
At first glance you may not see the connection between this big car dumper and the small standard locomotive crane. But when you come to purchase a crane—and remember that behind it are the brains and skill and facilities that built the *above*—you can readily see that you can invest with confidence. We build cranes of all sizes and all types. At it for years. That is why you can depend upon McMyler Interstate Products. Write for Catalog.

The McMyler Interstate Company

Cleveland, Ohio

BRANCH OFFICES: New York City, 1756 Hudson Terminal Bldg.; Chicago, Ill., 812 Edison Bldg.; Seattle, Wash., Hoge Bldg.; Denver, Colo., 18th and Wazee Sts.; San Francisco, Calif., 407 Merchants' Exchange Bldg.; New Orleans, La., Howard St.; Birmingham, Ala., Brown-Marx Bldg.

CD10



Are you interested in handling costs?

BROWNHOIST

Products Include:

Locomotive Cranes
Grab Buckets
Drag-Line Buckets
Electric Hoists
Tramrails and Trolleys
Overhead Tr. Cranes
Pillar and Jib Cranes
Heavy Dock Machinery
Suspended Concrete Bins

Write for Catalogs

If you have bulk or heavy material to handle around your plant or in the yard, you are, no doubt, interested in equipment which will save you time and money on this work. Brownhoist locomotive cranes are playing an important part in cutting handling costs for many companies handling materials which are similar to yours.

The great flexibility of a Brownhoist locomotive crane enables it to fit into almost every kind of a handling job. The crane, shown above, is handling coal from cars into an overhead coal bin. This is only one of the many jobs it is doing at this plant. Many cars are switched each day and a good deal of hook work is handled in addition to this bucket work.

We have just completed our new catalog K on locomotive cranes. This book gives some very interesting illustrations and shows Brownhoist cranes on various kinds of work. We will be glad to send you a copy on request.

The Brown Hoisting Machinery Company

40 Years in Crane Business **Cleveland, Ohio, U. S. A.**

Engineers and Manufacturers of Heavy Dock Machinery, Bridge Cranes, etc., as well as smaller Cranes and Hoists

Branch Offices in New York, Pittsburgh, Chicago and San Francisco
European Rep., H. E. Hayes, 12 Rue de Phalsbourg, Paris

OSGOOD 120

LARGE OR SMALL—
You can't make a better shovel investment

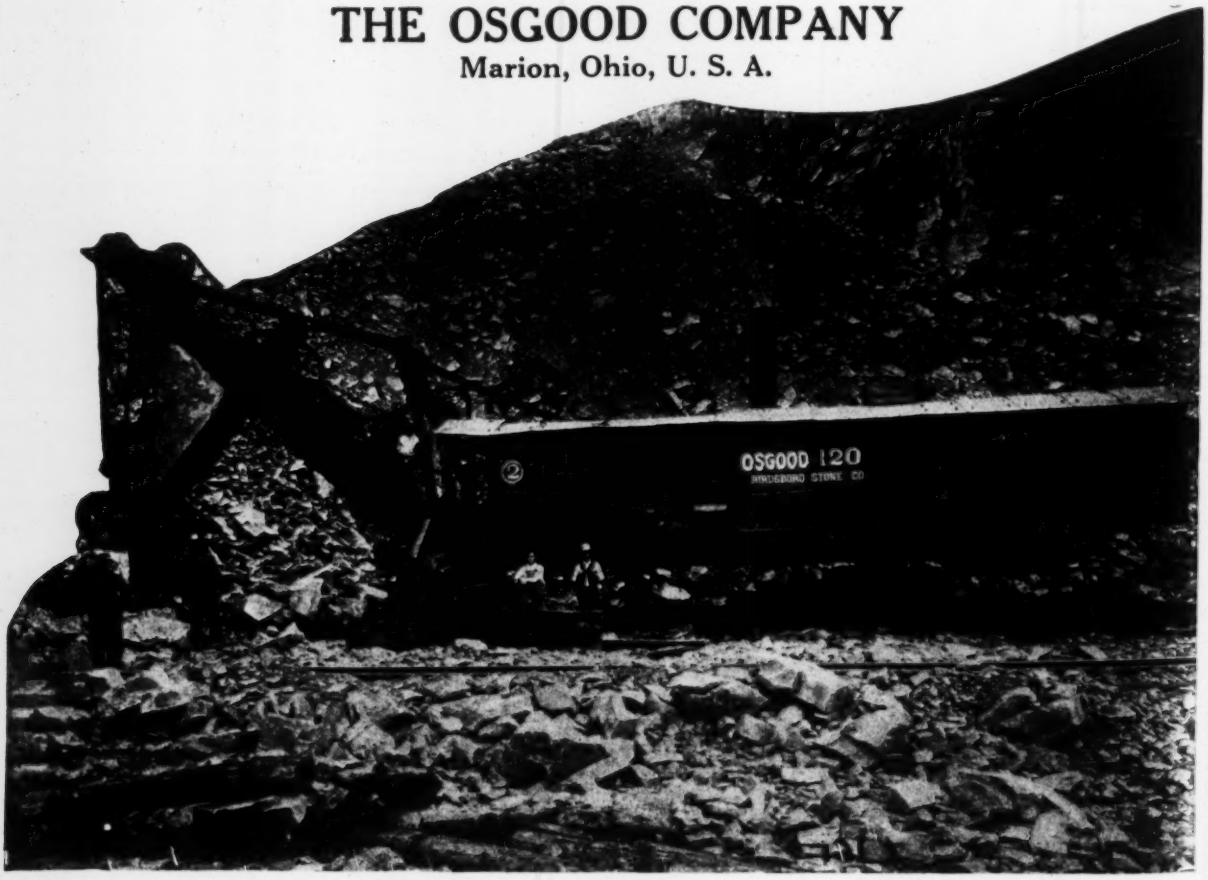
Whether it is to meet the requirements of quarry work, where the largest crushers are used, for handling ores where large capacity is required, for excavating shale, etc., without blasting or for the general every-day use on contracting work. You buy the greatest amount of shovel satisfaction in every way when you buy an OSGOOD—large or small.

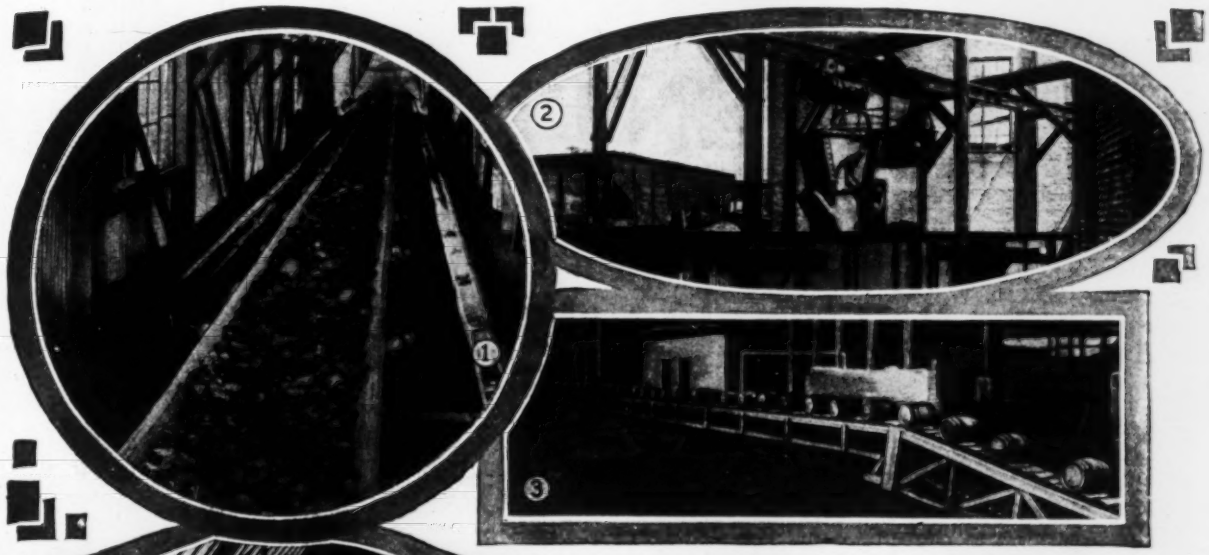
We willingly help you solve your excavating problem in a way that will materially reduce yardage cost.

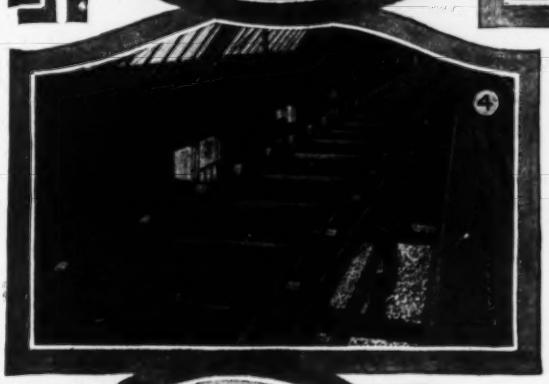
Revolving and Railroad types ¾ to 6 cu. yds.

Write us today for Catalog A-1

THE OSGOOD COMPANY
Marion, Ohio, U. S. A.







Reduce Expenses

WHENEVER you permit a crew of men to handle material that could be better handled by machinery, you are robbing yourself of profits that should be yours.

Link-Belt labor saving elevating and conveying machinery has increased the efficiency of manufacturing plants in nearly every line of industry.

The equipment shown herewith represents only a few of the various types of Link-Belt elevators and conveyors that make up the Link-Belt line. Write us about your individual problems. Let our engineers tell you how to save time and money in the handling of materials.

Catalogs and full particulars on request.

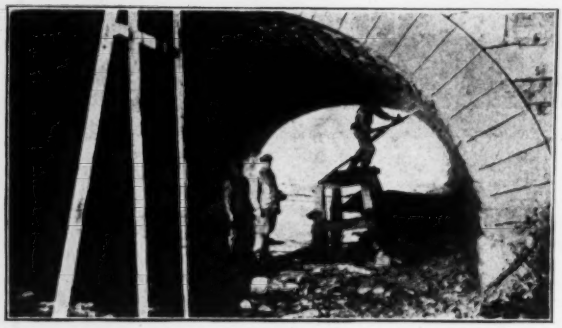
1. Belt Conveyor handling coal. Also used for many other kinds of material.
2. Link-Belt Electric Hoist handling coal and ashes. Can be used for any hoisting service.
3. Link-Belt Barrel Conveyor. We also furnish other types for handling all products.
4. Peck Carrier for handling coal, ashes, etc.
5. Link-Belt Wagon Loader, loads coal, sand, stone, gravel, etc. A ton a minute.

LINK-BELT COMPANY
PHILADELPHIA CHICAGO INDIANAPOLIS
OFFICES IN PRINCIPAL CITIES

LINK-BELT
ELEVATING AND CONVEYING EQUIPMENT

CEMENT-GUN
TRADE MARK

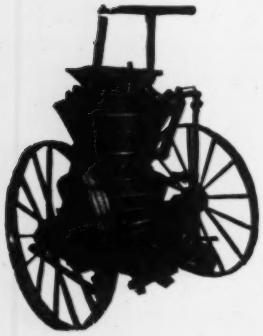
Gunite Means Economy



THESE photographs show the work being done by the Pennsylvania State Highway Department in reconstructing the old arches near Clark's Ferry, Pa., described in *Engineering News-Record* of October 21, 1920.

The Engineers of the Highway Department report that the entire cost of a "Cement-Gun" and compressor was saved on this job alone over the estimate for repairing by ordinary methods.

We have many interesting facts on record regarding the performances of the "Cement-Gun." Let us show you the economy of its use. Write.



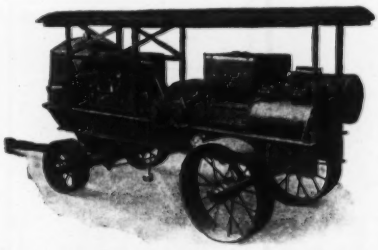
CEMENT-GUN CO., INC.

Cornwells, Bucks Co.

PENNSYLVANIA

New York Office, 30 Church St.; Chicago Office, 904 Chamber of Commerce Bldg.; Pittsburgh Office, 211 Fulton Bldg.; Los Angeles Office, Citizens' National Bank Bldg.; Spokane Office, 612 Mohawk Block; Richmond Office, 812 Virginia Railway and Power Bldg.; General Supply Co., Ltd., Winnipeg and Ottawa, Canada, 2; Kansas City Office, 204 R. A. Long Bldg.

Agencies in all principal foreign countries



"We sell Traylor Contractor Type Compressors."

PAVER
DRAGLINE
TRENCHER
LOADER
MIXER
LOCOMOTIVE
CLAMSHELL
SKIMMER
DITCHER
BACKFILLER
SHOVEL
THE faster trucks can be loaded the more trips they can make per hour. The Austin Wagon Loader keeps them moving at full efficiency. Operated by one man, it loads 6 cubic yards of material in 6 minutes at an average cost of 7½ cents per yard. To do the job by hand would require 20 minutes of 8 men's time. And the approximate cost would be 45 cents per yard.
This loader is the result of 40 years' experience. Send for Wagon Loader booklet U3.
Austin Machinery Corporation
(F. C. AUSTIN CONSOLIDATION)
Chicago Office: Railway Exchange Building
New York Office: 30 Church Street
Atlanta Office: 10 W. Harris Street
AUSTIN
MACHINERY
MOVES THE EARTH—
MIXES THE CONCRETE
REG. U.S
PAT. OFF

SUCH clay as you see here will test the strength and staying qualities of the sturdiest shovel. The teeth-marks tell their own story—indicating the heavy, stubborn material so common in clay pits.

The "Marion" 36 is built to withstand just such service. Its strong manganese dipper is capable of "biting" into the toughest clay or the hardest shale. Powerful engines and ample boiler capacity insure steady performance even when working under severe and adverse conditions.

Steady output will be assured at your plant if a "Marion" does the digging. Your order should be placed now for early spring delivery.

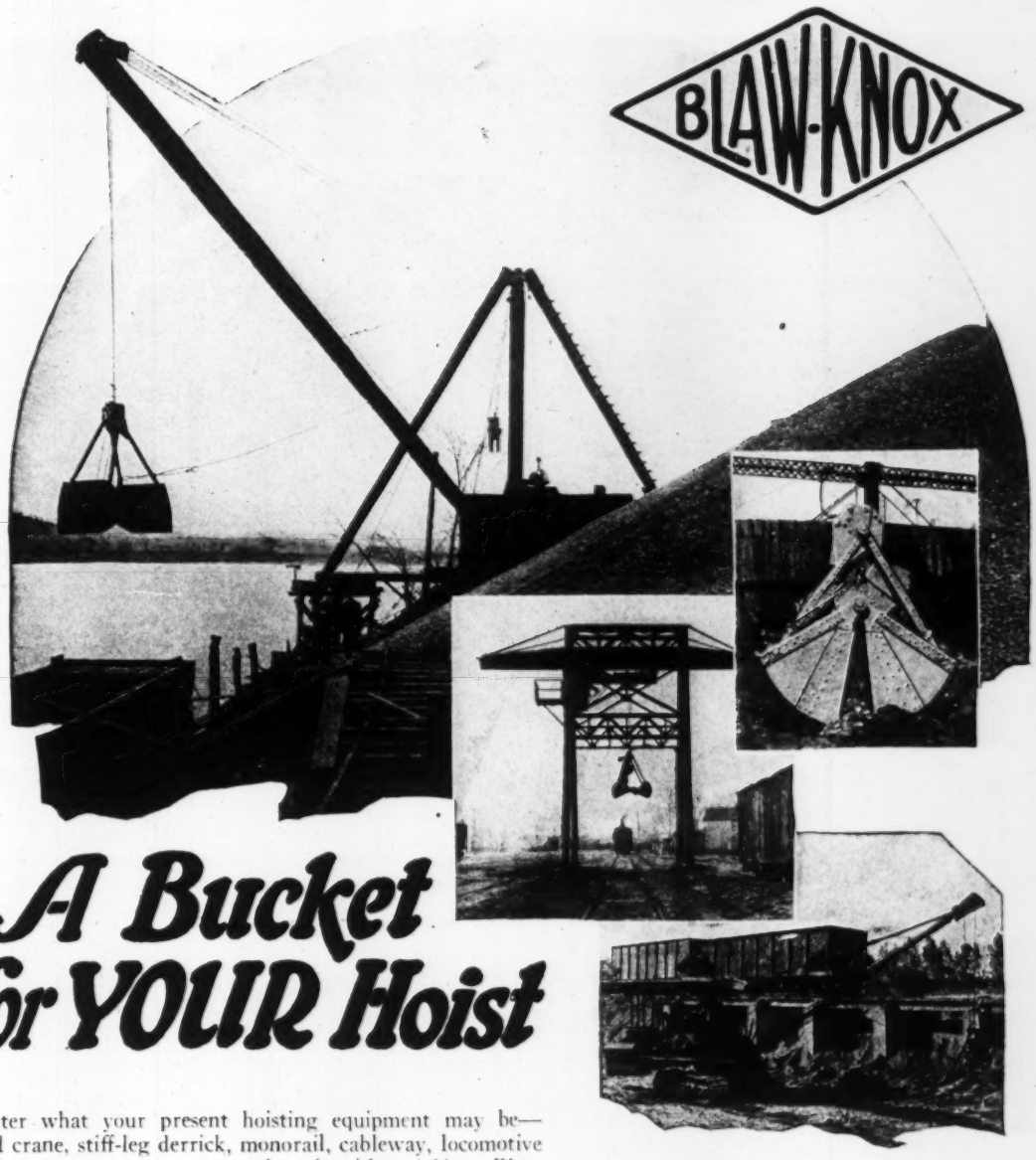
THE Marion STEAM SHOVEL CO.

Established 1884 **Marion, Ohio**

New York Chicago Atlanta San Francisco

Boise, Idaho, - Clyde Equipment Co.
Billings, Mont., F. B. Connelly Co.
Dallas, - F. B. Wright, Bush Bldg.
Denver, - - - H. W. Moore & Co.
Detroit, W. H. Anderson T. & S. Co.
Vancouver, - - - - - - - - - - - Vancouver Machinery Depot, Ltd.
Montreal, Toronto, - - - - - - - - - - - - F. H. Hopkins & Co., Ltd.
Philadelphia, H. L. Cox, 13 & Cherry
Pittsburgh, - - - J. W. Patterson
Portland, - - Clyde Equipment Co.
Salt Lake City, H. W. Moore & Co.
Seattle, - - Clyde Equipment Co.

EVERYWHERE RELIABLE THE Marion STEAM SHOVEL CO. ESTABLISHED 1884



A Bucket for YOUR Hoist

No matter what your present hoisting equipment may be—overhead crane, stiff-leg derrick, monorail, cableway, locomotive or traction crane—we are prepared to furnish *quickly* a Blaw Bucket which is exactly suited to your requirements.

Blaw Buckets are manufactured in all sizes and in many standard types—Four Line; Dredger; Foundry; Power-Wheel; Bulldog; Dreadnaught; Speedster and Single Line—for every kind of rehandling or excavating on which a grab bucket can be used at all.

They are economical in price, operation and maintenance.

All this—with an engineering service which assures you getting exactly the bucket which you need.

Remember *Blaw Buckets* when in the market for rehandling equipment—and write us.

NOTE—The following products are built and trade-marked by Blaw-Knox Company: Steel Forms for Concrete Construction—Clamshell Buckets—Fabricated Steel Specialties—Water Cooled Appliances for High Temperature Furnaces—Pressed, Riveted and Welded Plate Work—Standardized Sectional Steel Buildings

BLAW-KNOX COMPANY

PITTSBURGH, PA.
601 Farmers Bank Bldg.

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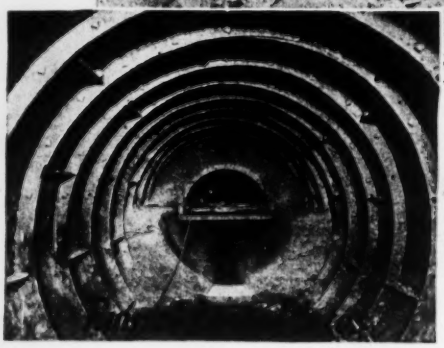
BLAW-KNOX

Travelling Forms for Tunnels



Allow Un-interrupted Traffic

Blaw Travelling Tunnel Forms are designed and built by engineers experienced in every phase of tunnel construction.

This knowledge of construction requirements was applied to the building of a form for the Monongahela Southern R. R. Tunnel at Clairton, Pa.—a collapsible, travelling form which permitted continuous concreting work without interfering with traffic schedules.

The picture illustrates this form, and depicts an engineering triumph in tunnel construction which is in conformity with the high standard of engineering service which is infused into all Blaw-Knox Products.

Blaw-Knox Engineering Service is at your disposal on concrete construction projects of all kinds. Write us.

NOTE—The following products are built and trade-marked by Blaw-Knox Company: Steel Forms for Concrete Construction—Clamshell Buckets—Fabricated Steel Specialties—Water Cooled Appliances for High Temperature Furnaces—Pressed, Riveted and Welded Plate Work—Standardized Sectional Steel Buildings

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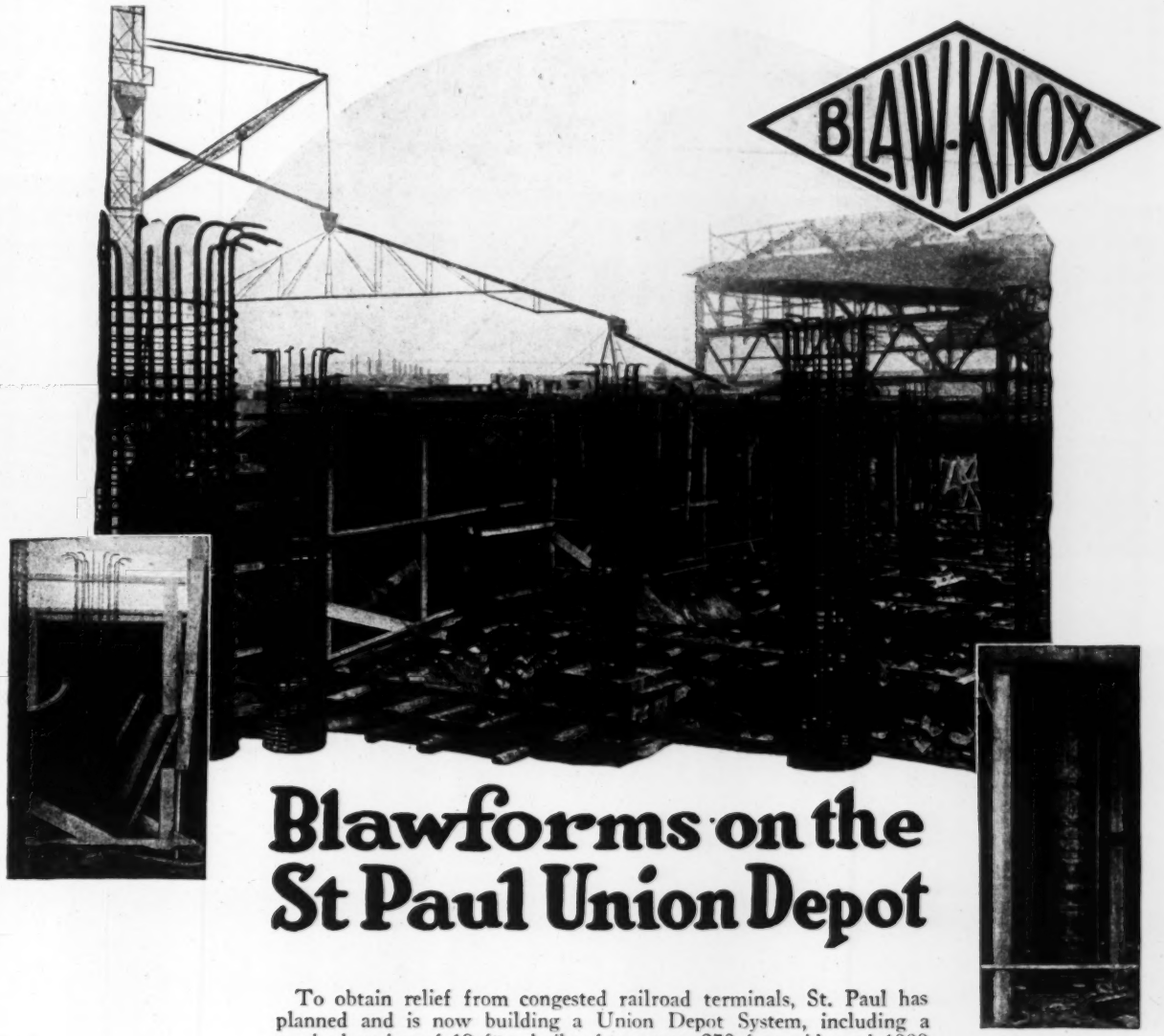

Blawforms on the St Paul Union Depot

To obtain relief from congested railroad terminals, St. Paul has planned and is now building a Union Depot System, including a track elevation of 19 feet, built of concrete, 270 feet wide and 1000 feet long—serving the nine big roads operating through St. Paul—for which Blaw-Knox Company has furnished and is superintending the erection and operation of Blaw Column Molds for building the supporting columns, and a specially designed travelling Blawform for casting the concrete floor slab.

The St. Paul track elevation is a proof of Blaw-Knox Engineering Service—our engineers are ready to render their services on construction projects of any kind.

Send us blue-prints or a detailed description of any job you have in mind, or ask for one of our men to come and investigate it—we will save you money.

Note — These products are built and trade-marked by Blaw-Knox Company: Steel Forms for Concrete Construction—Clamshell Buckets—Fabricated Steel Specialties—Water Cooled Appliances for High Temperature Furnaces —Pressed, Riveted and Welded Plate Work.

BLAW-KNOX COMPANY

PITTSBURGH, PA.
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FROM STOCK
A Complete Building in a Single Shipment

Blaw-Knox Prudential Steel Buildings in all widths from 8 to 50 feet, and in any required length.

Standardized, portable construction enables you to erect the building in a very short time with a few men—windows, doors, etc., are interchangeable and can be placed wherever desired.

Blaw-Knox Prudential Steel Buildings are universal in application, filling the needs of industrial plants as light manufacturing buildings or for storage and warehousing—and just as well adapting themselves to service as bunk houses, tool sheds, pump houses, field offices, garages, in fact, every conceivable use.

Weatherproof, fireproof and staunch — ***permanent structures***— not temporary buildings.

Write, wire or phone our nearest office.

NOTE—The following products are built and trade-marked by Blaw-Knox Company: Steel Forms for Concrete Construction—Clamshell Buckets—Fabricated Steel Specialties—Water Cooled Appliances for High Temperature Furnaces—Pressed, Riveted and Welded Plate Work—Standardized Sectional Steel Buildings

BLAW-KNOX COMPANY

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ROAD MULTI FOOTE PAVER

TRADE MARK REGISTERED

EVERY FOOTE A MIXER

General Agents

Foote Concrete Machinery Co., 1241 Mich. Ave., Chicago, Ill.
Edward R. Bacon Co., 51 Minna St., San Francisco, Cal.
Wilcox Brothers, Inc., 30 Church St., New York, N. Y.
F. J. McHarg & Co., 3 Crandall St., Binghamton, N. Y.
Made by Foote Co., Inc., Nunda, N. Y.

MANKATO MINN. RED OAK, IOWA

J. S. McLAUGHLIN & SONS
PAVING CONTRACTORS
ADDRESS ALL CORRESPONDENCE TO
GENERAL OFFICE,
FIRST NATIONAL BANK BLDG.
MANKATO, MINN.

Nov. 17, 1920

Foote Concrete Machinery Co.
1241 South Michigan Ave.
Chicago, Ill.

Gentlemen:

We have just closed our tenth paving season since we purchased our first Foote Paver and have reviewed the progress of evolution in the manufacture of concrete mixers with great interest to ourselves and think that it may be interesting to your concern to hear from us, therefore, we take this occasion to advise you that the season of operations which has just closed has been a pleasure in so far as the actual mixing and placing the concrete base and concrete for reinforced concrete pavements.

We have used Foote mixers during this period because we thought the Foote to be the best end discharge paving mixer.

We are so well pleased with the Multi-Foote Tread that we can't help telling you that the Multi-Foote Tread has caused our troubles in moving over wet, soft and slippery ground to disappear, since our operators have learned to handle the machine they can turn same around in a space but little greater than the length of the machine. Our repairs during 1920 have been negligible.

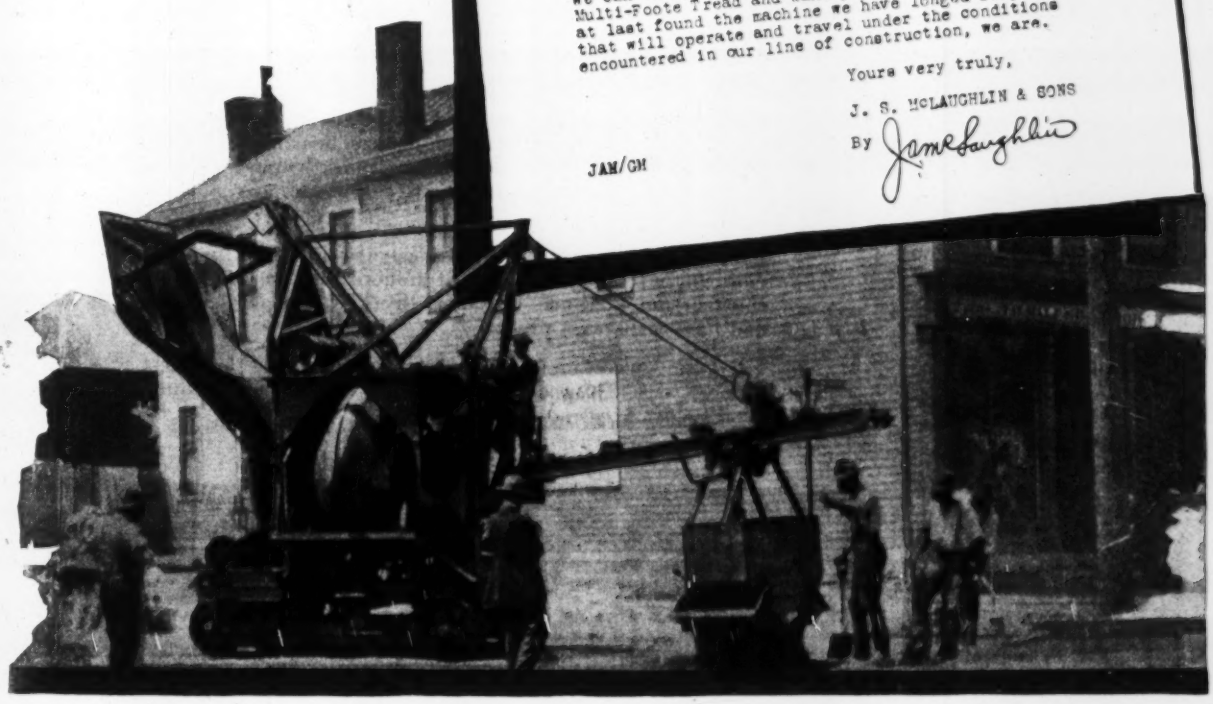
We can't say too much for the new mixer with the Multi-Foote Tread and want you to know that we have at last found the machine we have longed for, one that will operate and travel under the conditions encountered in our line of construction, we are.

Yours very truly,

J. S. McLAUGHLIN & SONS

By Jas McLaughlin

JAM/GM



Rex 7-S Concrete Mixer working on a foundation job. The portability of this machine allows it to be easily moved around on the job—an important time-saving factor

How Rex Mixers Increase Profits

Every dollar cut out of the cost of mixing and pouring concrete is a dollar for the profit side of the ledger. The contractor who makes the most money is the contractor who lays the most concrete at the least cost.

Rex Concrete Mixers and Pavers are enabling hundreds of contractors to make more money through continuous, trouble-free operation, speedy mixing, and long life.

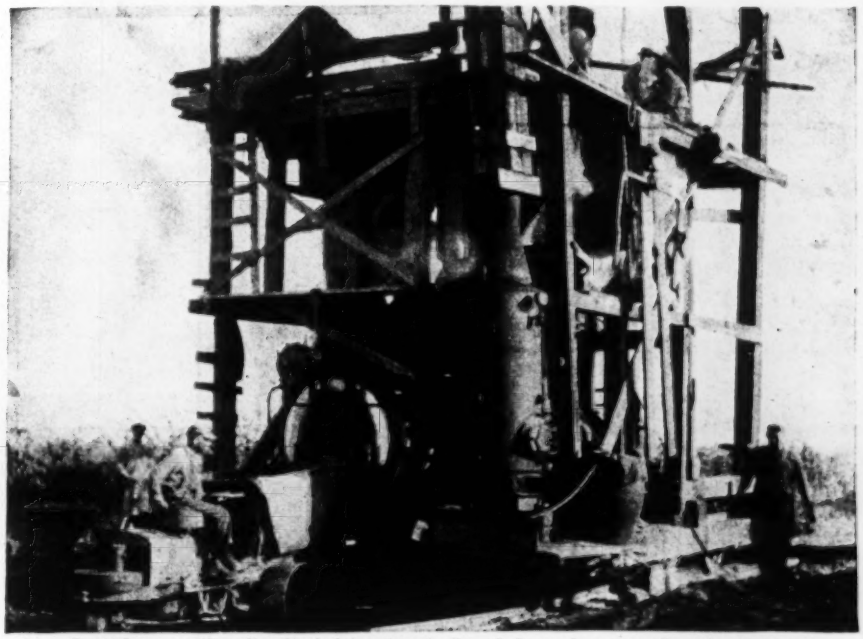
The life of a Rex cast semi-steel mixing drum is easily ten years. The drum rollers and bronze bearings are heat-treated for hardening and there are many examples where they have lasted under continuous service for seven, eight and even more years.

Every other feature of a Rex is designed and built to meet enduringly the requirements of modern building and road-construction methods. That is why Rex Concrete Mixers and Pavers increase profits.

For your pocketbook's sake you should have the latest catalogs describing these machines. They cost nothing. Send today.

REX MIXERS

Rex Chains, Rex Traveling Water Screens
Rex Sprockets, Rex Elevators and Conveyors



Rex 14-S Concrete Mixer No. 654 which has given the Bates & Rogers Construction Co. eight years' steady service at an average yearly repair cost of only $10.34—and still has its original important parts

Eight Years — $10.34 — and Rex Mixer No. 654

In 1912 the Bates & Rogers Construction Company, Chicago, owners of 7 Rex Concrete Mixers, bought a Rex 14-S—machine No. 654—and shipped it into Canada to work on the Grand Trunk Railway extension.

Although this mixer has been operating ever since on important jobs in Canada and the United States it is still in excellent condition.

It still has its cast semi-steel drum—it is rare that a Rex Drum wears out in 10 years—rollers and bronze bearings, and the repairs for the eight years' service total only $82.71, an average of $10.34 a year.

Wherever Rex Mixers are used, contractors are obtaining big yardage and uninterrupted operation at minimum cost. They can do the same for you.

All Rex Pavers and Rex Building Mixers Nos. 7-S, 14-S, 21-S and 28-S are chain driven with all-steel chain —Rex Chabelco Chain.

AND PAVERS

CHAIN BELT COMPANY, MILWAUKEE

Branch Offices and Representatives in Principal Cities in the United States and Abroad

It's Always on Job and Keeps Small Crew Busy

For foundations, sidewalk construction and floor building, Lansing Mixer No. 7 is increasing the profits of contractors everywhere.

It has power side loader and water tank, is a well balanced machine and handles a bag of cement at each batch. It is deservedly popular on small and medium sized jobs where the expense of moving and operating a larger mixer is prohibitive.

Lansing Mixer No. 7 is first choice of contractors because of its wide range of usefulness, low first cost and small expense of maintenance.

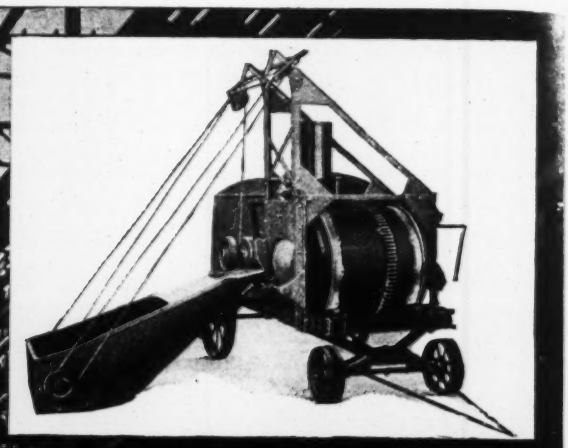
It's the right size mixer for contractors interested in making money.

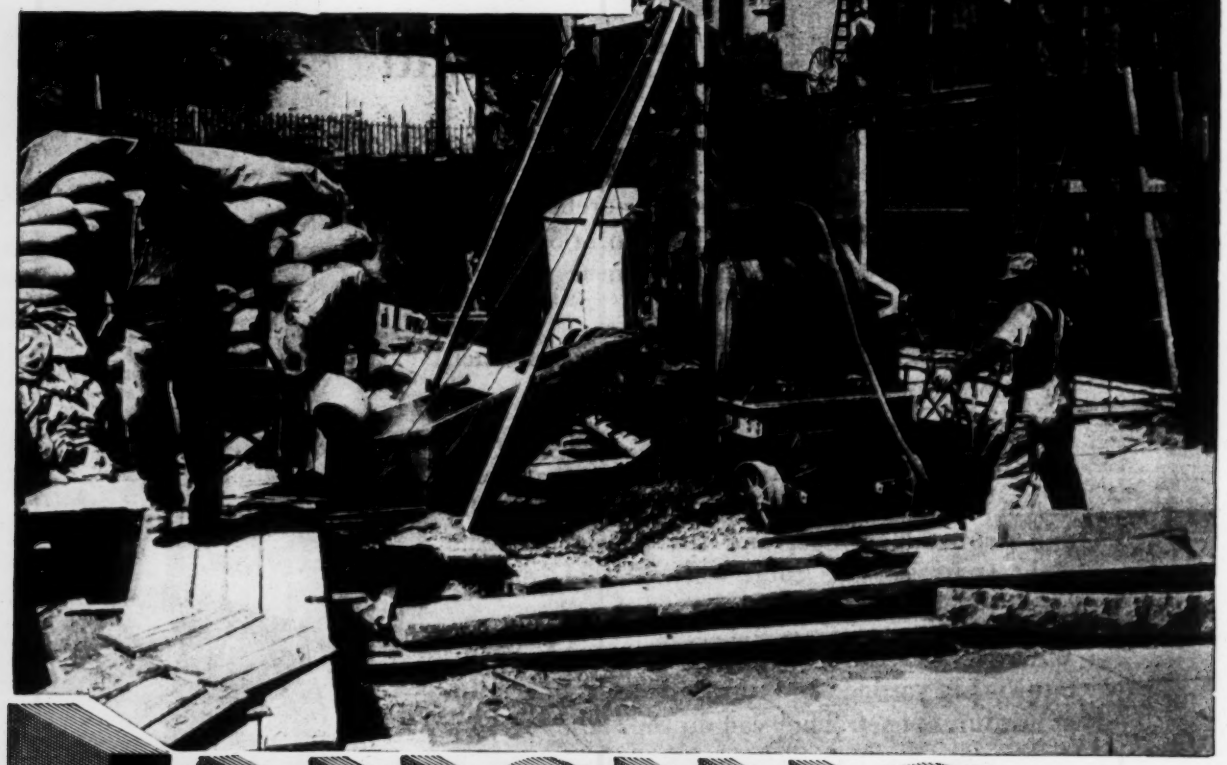
Let us send you complete information about Lansing Mixer No. 7, as well as our line of contractors' equipment. Nearly 40 years of manufacturing experience peculiarly fits us to cooperate with contractors intelligently. Write for our 50-page mixer catalog.

LANSING-COMPANY

26 North Cedar Street Lansing, Mich.

BRANCHES: New York Philadelphia Boston Chicago Minneapolis Detroit Kansas City San Francisco



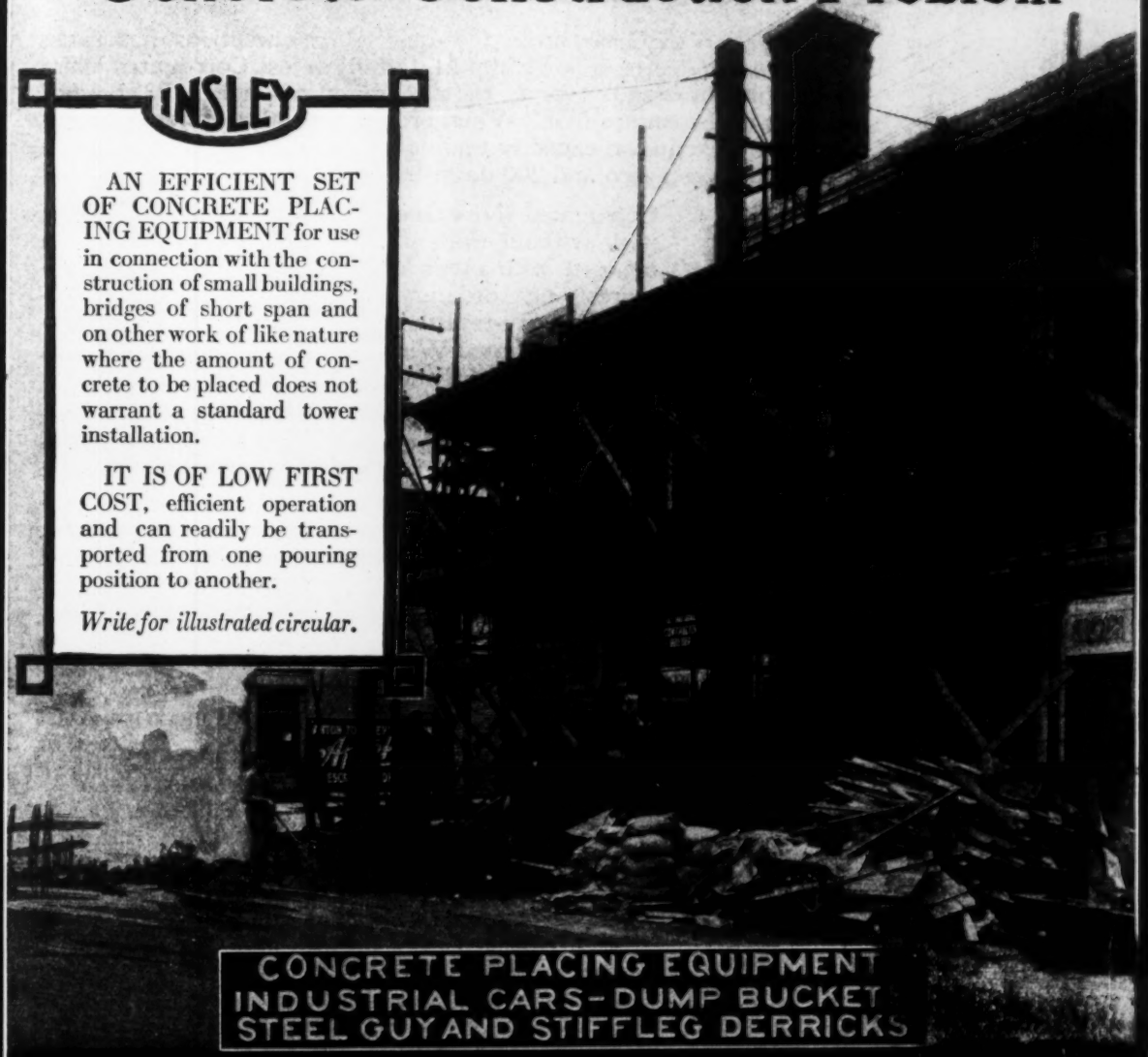


LANSING COMPANY

CONCRETE MIXERS - CONTRACTORS' EQUIPMENT

THE INSLEY MAST HOIST BUCKET PLANT

Solves the small Concrete Construction Problem



INSLEY

AN EFFICIENT SET OF CONCRETE PLACING EQUIPMENT for use in connection with the construction of small buildings, bridges of short span and on other work of like nature where the amount of concrete to be placed does not warrant a standard tower installation.

IT IS OF LOW FIRST COST, efficient operation and can readily be transported from one pouring position to another.

Write for illustrated circular.

CONCRETE PLACING EQUIPMENT
INDUSTRIAL CARS-DUMP BUCKET
STEEL GUY AND STIFFLEG DERRICKS

INSLEY MANUFACTURING CO.

Engineers INDIANAPOLIS, INDIANA. Manufacturers

CORRUGATED WIRE GLASS

Light In Every Nook and Corner—Without Shadows

FROM the standpoint of greater efficiency, increased production and decreased possibility of accidents, a well day-lighted industrial building has proved its necessity. That is why executives who are responsible for the erection of such structures always demand "*plenty of light.*" It is to make possible a better day-lighted building that Corrugated Wire Glass was introduced.

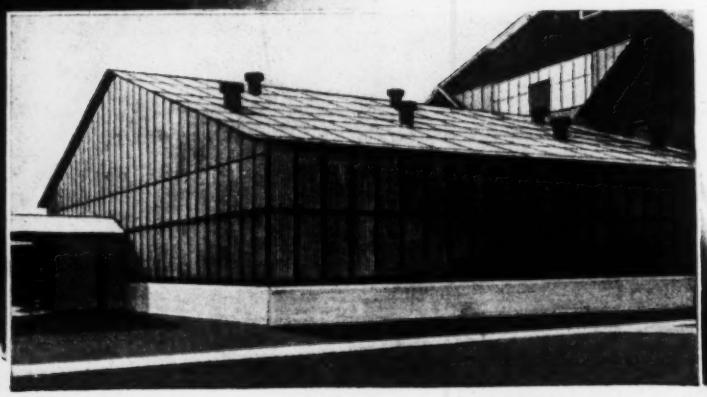
Corrugated Wire Glass, under the most severe conditions, has satisfactorily exhibited its superiority. In a strength test, Corrugated Wire Glass will withstand, over a clear span of 60 inches, 73 pounds pressure to the square foot. When properly installed it has *twenty* times more expansion capacity than is necessary with temperatures varying between zero and 200 degrees.

Corrugated Wire Glass is easily erected. It supports itself without the aid of special roof members, can be used with other corrugated materials and requires only ordinary labor to install it. Glare-diffusing, fire-retarding, self-cleaning and weather-tight Corrugated Wire Glass is suitable for all kinds of side walls, roof and sky light construction.

We maintain a staff of competent engineers who stand ready to work with architects and builders and give them the benefit of their practical knowledge of the best method of adapting Corrugated Wire Glass to different constructions. Our interesting folders go into a more detailed discussion of installation, and the advantages in selecting Corrugated Wire Glass.

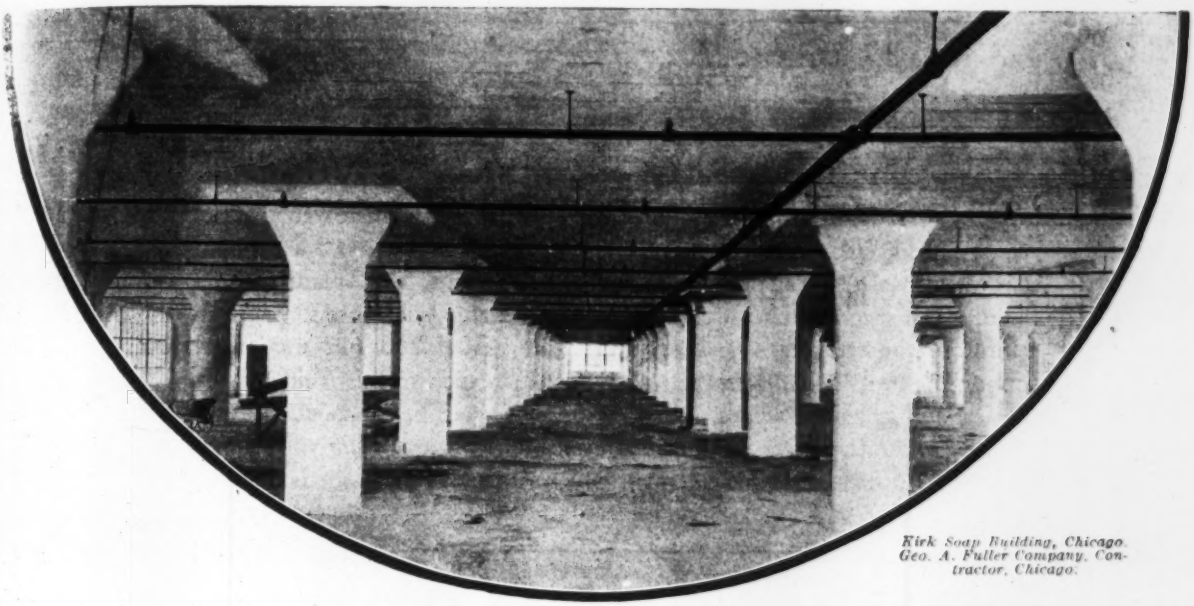
Write for them.

Pennsylvania Wire Glass Company
1511 Chestnut Street
Philadelphia, Pa.



CORRUGATED WIRE GLASS

PENNSYLVANIA WIRE GLASS CO. SOLID WIRE GLASS



Kirk Soap Building, Chicago. Geo. A. Fuller Company, Contractor, Chicago.

On Time!

For smooth, true columns—Hydraulic Steel Column Forms. Standardized—quickly erected—rapidly removed—perfect fit—they help to get the job done *on time* and mean a big saving in time and also labor costs.

90% of America's leading building contractors are using Hydraulic Steel Forms.

Forms shipped from stock—leased on an economical basis.

THE HYDRAULIC STEELCRAFT COMPANY
of THE HYDRAULIC STEEL COMPANY
CLEVELAND, OHIO

Manufacturers of Standardized Steel Buildings; Wall, Column, Sewer, Tunnel, House, Arch Pan and Flat Slab Forms; and Column Guards.

Branch Sales Offices:

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HYDRAULIC

Hydraulic System

The Industrial Work of Stone & Webster

A SURVEY of the industrial work of Stone & Webster, completed or in progress, shows buildings of brick and steel, stone and reinforced concrete, machine shops and foundries, steel mills, factories, warehouses and chemical works, industrial service buildings, power stations large and small, power distributing systems in towns and cities, water works, roads, railways and sewers, water power developments, gas plants, transmission lines and substations. Our methods are tested and our men are proven. Our experience is valuable from the time you begin to shape your plans, and we work *with* you as well as *for* you until your plant is done.

STONE & WEBSTER
INCORPORATED

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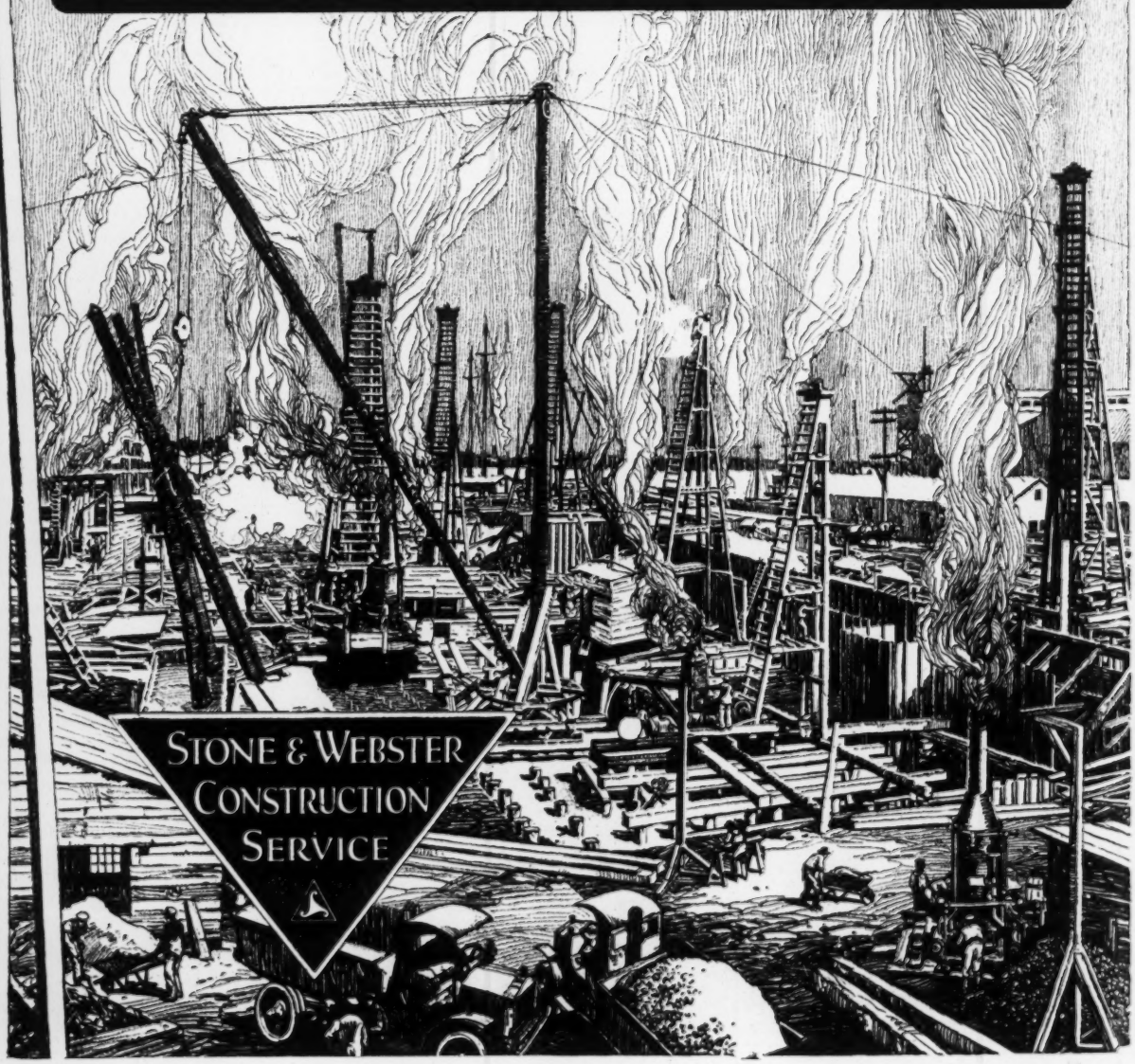
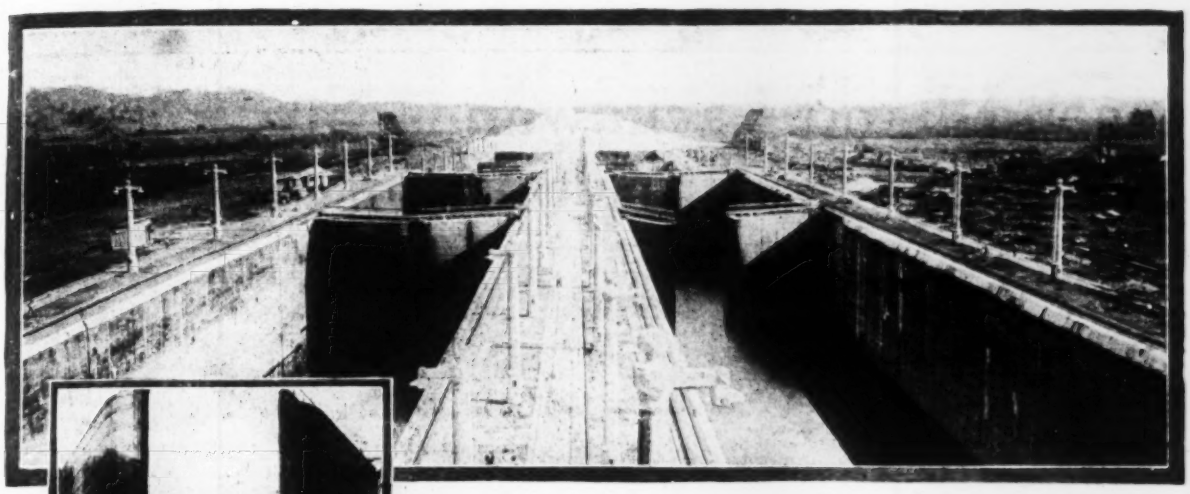
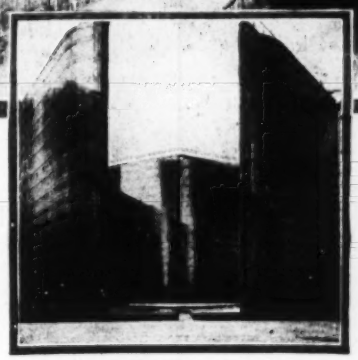




Lock Gates at Gatun—Panama Canal
Looking Toward Atlantic Ocean



46 Gates—92 Leaves—60,000 Tons of Steel Work

We Design,
Manufacture and Erect
Steel Structures for
Industrial Buildings
Bridges and Girders
Power Plants
Viaducts
Lock Gates
Foundries and Machine Shops
Train Sheds
Warehouses
Crane Runways
Office and Store Buildings
Etc.
McClintic-Marshall

The Worth of a Service

AN efficient organization developed during twenty years of designing, manufacturing, and erecting steel structures, enables McClintic-Marshall to build the largest steel structures in the world. Exactness of design and manufacture, plus carefulness of erection, has been characteristic of this organization since its inception. The facilities of seven large shops, capable of fabricating over 400,000 tons of steel annually, the proven knowledge of skilled workers, and the cumulative experience of capable engineers, all stand ready to assist those who contemplate new construction.

Whether your requirements are large or small, we are prepared to offer you our services.

Write for booklet C 205.

McClintic-Marshall Company

General Offices: 1201 OLIVER BUILDING, PITTSBURGH, PA.

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DETROIT, MICH., Book Building
NEW YORK CITY, 50 Church Street
PHILADELPHIA, PA., Morris Building
POTTSTOWN, PENNSYLVANIA
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SEATTLE, WASH., Coleman Building
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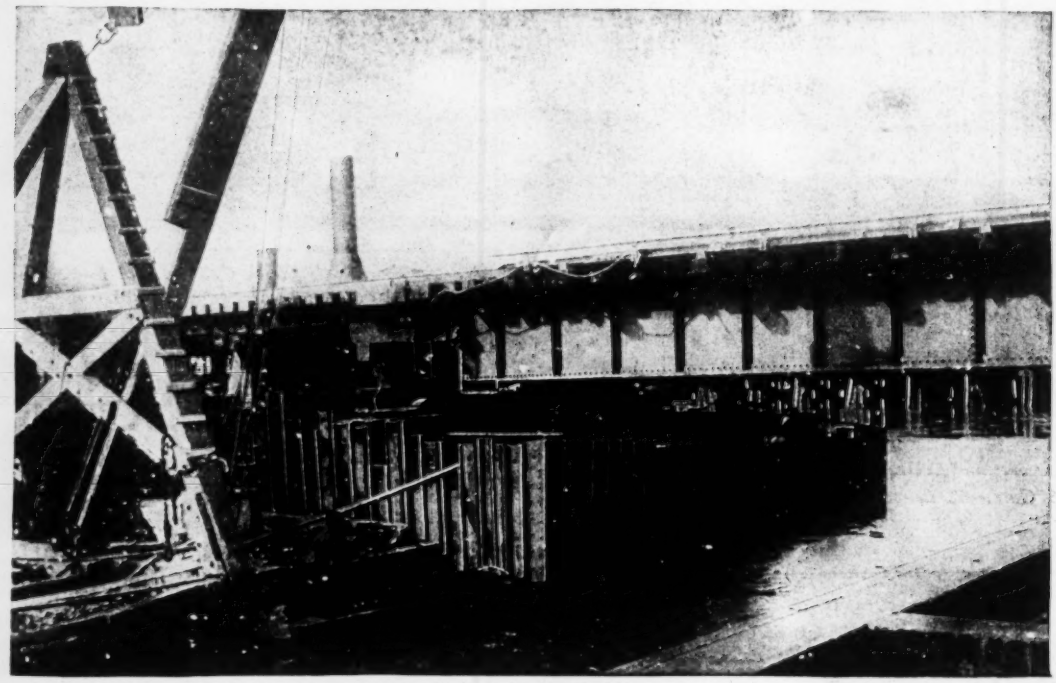
Foreign Contract Dept.: 50 Church St., New York City, U. S. A.

McClintic-Marshall
Steel Construction

Second-hand Lackawanna Steel Sheet Piling used in difficult driving conditions



Bridge repairs on the West Jersey and Seashore Division of the Pennsylvania Railroad at Atlantic City have necessitated the driving of a number of Lackawanna Steel Sheet Piling cofferdams.

The one shown for repairing pier of a swing bridge was built with Lackawanna 14-inch Arched-Web sheet piling sections which had seen much previous use. In this particular cofferdam the sheet piling sections had to be driven through the large boulders that were placed above the base of the old piers to give them stability. In spite of its previous use and the severe driving conditions, this Lackawanna Steel Sheet Piling drove to a very even line.

Mr. Amos Rogers, who is in charge of the work for Brann & Stewart, reports that this cofferdam driven through a bed of boulders can be pumped out with two 6-in. pumps in forty minutes. Lackawanna Steel Sheet Piling is perfectly adaptable to so many different conditions that it is a good standby for almost any kind of bridge or building foundation work. The proof of this is in the fact that many contractors carry a stock of Lackawanna Sheet Piling constantly for regular and emergency jobs.

If you nave any subsurface work requiring retaining walls, curtain walls, or the exclusion of water during excavation, ask Lackawanna engineers to suggest the most suitable form of steel sheet piling construction.

Lackawanna Steel Company

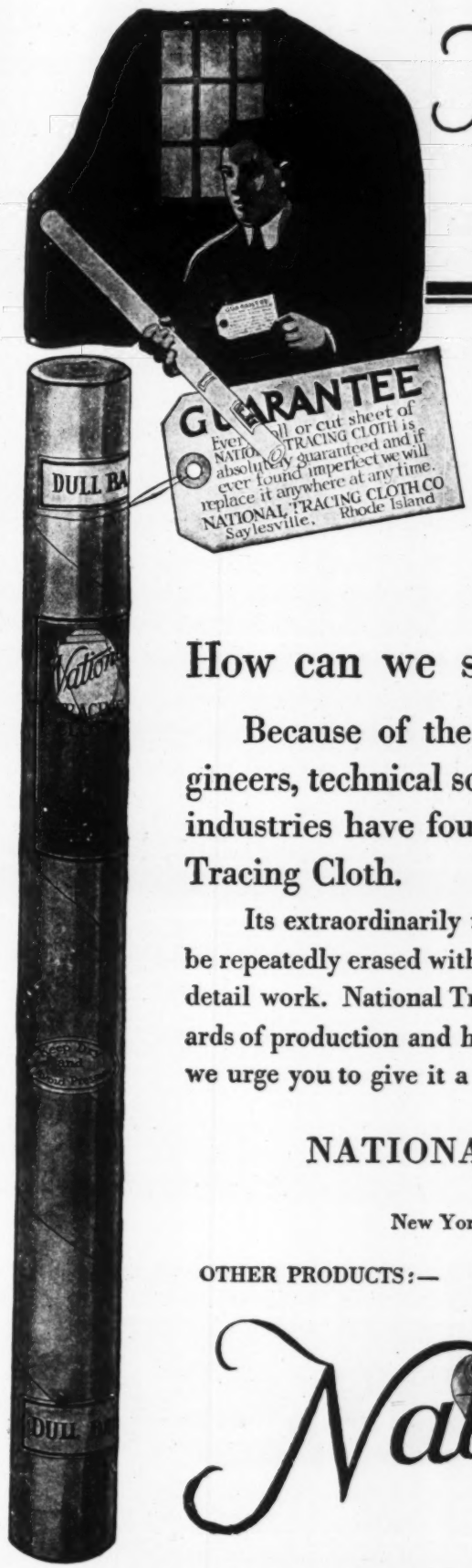
General Sales Office and Works, Lackawanna, N. Y.

Boston	Chicago	Cincinnati	New York	St. Louis
Buffalo	Cleveland	Detroit	Philadelphia	San Francisco

Licensees for the manufacture of Lackawanna Steel Sheet Piling: For Great Britain and British Colonies in the Eastern Hemisphere: Cargo-Fleet-Iron Co., Ltd., Middlesbrough, England. For France, Italy, Spain, French Colonies and Protectorates, Italian Colonies and Spanish Colonies in the Eastern Hemisphere; Cie. Des Forges & Aciéries de la Marine et d'Homecourt, Paris, France.

Sole Exporter for other countries: Consolidated Steel Corporation, 165 Broadway, New York.

516



A remarkable guarantee

To all users of tracing cloth we say:

"Every roll or cut sheet of NATIONAL Tracing Cloth is absolutely guaranteed, and if found imperfect in any way, we will replace it anywhere at any time."

To Dealers we add:

"Likewise, if any roll or cut sheet of NATIONAL Tracing Cloth is found unmerchantable because of an imperfection of any kind, we will gladly replace it at our expense."

—NATIONAL TRACING CLOTH CO.

How can we sign such a broad guarantee?

Because of the unequaled satisfaction architects, engineers, technical schools, and many of the world's leading industries have found in the uniform quality of National Tracing Cloth.

Its extraordinarily uniform texture and unexcelled surface, that can be repeatedly erased without harm, permits of the finest and most exacting detail work. National Tracing Cloth is the result of closely guarded standards of production and has no superior. Send for a free sample sheet, and we urge you to give it a thorough test.

NATIONAL TRACING CLOTH CO.
SAYLESVILLE, R. I.

New York Office 72 Leonard Street

OTHER PRODUCTS:— **National Vellum Cloth** **National Blueprint Cloth** **National Tracing Paper** **National White Pencil Cloth**

National TRACING CLOTH

167-6

-IR-"Jack

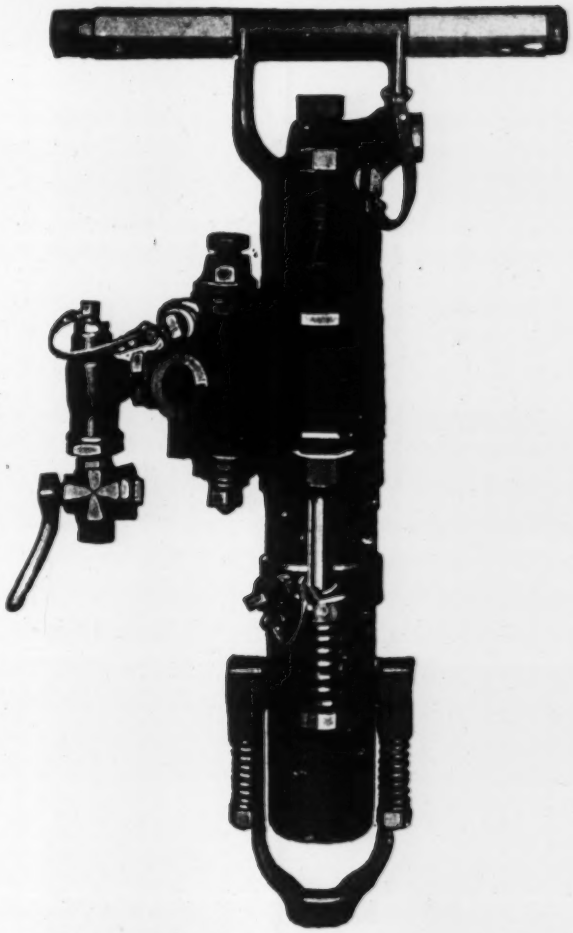
Ingersoll-Rand "DDR-13 JACKHAMERS" sinking a 70° incline-shaft at the Replogle Mine of the Wharton Steel Company, Wharton, N. J.

Let us tell you why "DDR-13 JACKHAMERS" were specified.

Ingerso

hamers"

Shaft Sinking



Getting down to facts, you want to lower the cost per foot of sinking your shaft. Hundreds of others have been up against this same problem and found the solution in "DDR-13 JACKHAMERS."

Shaft sinking is their special job. The "DDR-13" is only one of five types and thirteen patterns of "Jackhamers" which range from 21½ to 70 lbs. making "A Jackhamer for every rock drilling condition."

"DDR-13 JACKHAMERS" are rapid drillers. Weighing 70 lbs., they are heavy enough for their strenuous work, yet sufficiently light to be easily handled by one man. They are economical of air and they *stay on the job.*

All steel construction
All bolted construction
Automatic rotation
Leyner water device
"Heartbeat" oiler
"Spool Butterfly" Valve

The DDR-13 Jackhamer is described in Bulletin No. 4142

Ingersoll-Rand Company

General Offices: 11 Broadway, New York

Offices the World over

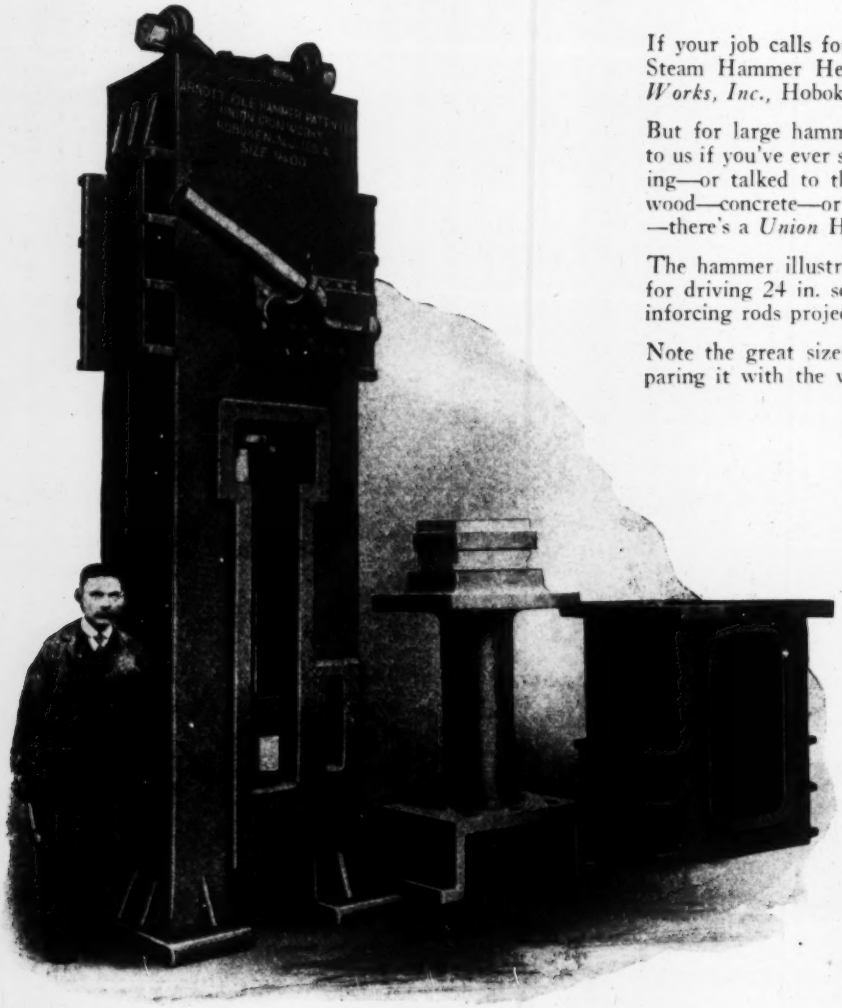
240-JD

11-Rand

UNION NO-00

The Largest Hammer Made

Strikes 80—55,000 ft.-lb. blows per minute!



If your job calls for a heavy hammer—come to Steam Hammer Headquarters—the *Union Iron Works, Inc.*, Hoboken, N. J.

But for large hammers or small you will come to us if you've ever seen a *Union* Hammer working—or talked to the man who has used one—wood—concrete—or steel piles—small or large—there's a *Union* Hammer for every need.

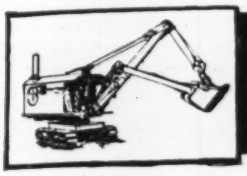
The hammer illustrated has follower and guide for driving 24 in. square concrete piles with reinforcing rods projecting 24 in. from heads.

Note the great size and massive build by comparing it with the workman standing alongside.

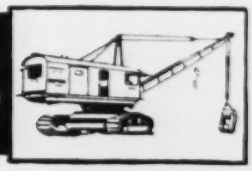
Write for YOUR catalog today.

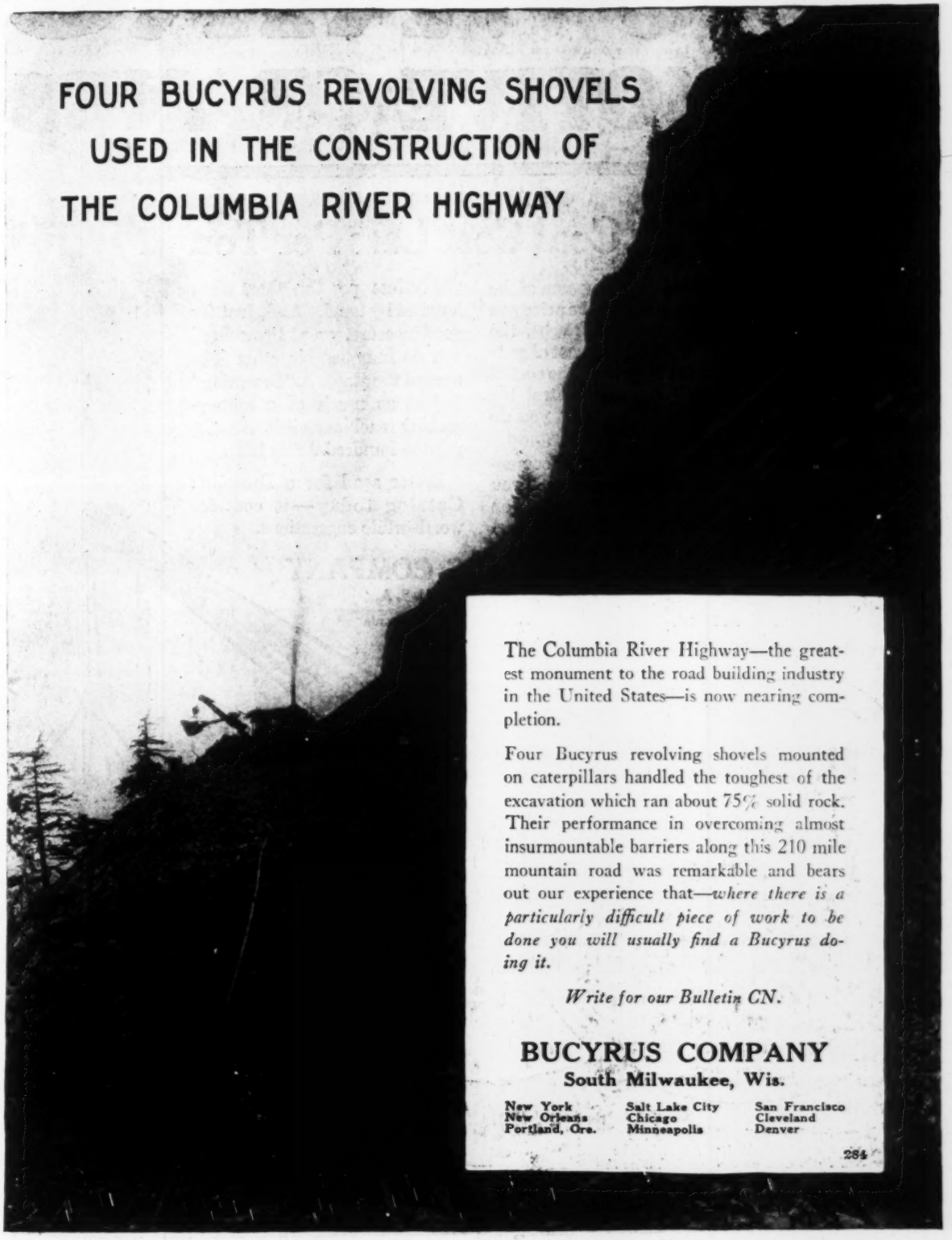
UNION IRON WORKS

Hoboken, N. J.



BUCYRUS





The Columbia River Highway—the greatest monument to the road building industry in the United States—is now nearing completion.

Four Bucyrus revolving shovels mounted on caterpillars handled the toughest of the excavation which ran about 75% solid rock. Their performance in overcoming almost insurmountable barriers along this 210 mile mountain road was remarkable and bears out our experience that—*where there is a particularly difficult piece of work to be done you will usually find a Bucyrus doing it.*

Write for our Bulletin CN.

BUCYRUS COMPANY
South Milwaukee, Wis.

New York	Salt Lake City	San Francisco
New Orleans	Chicago	Cleveland
Portland, Ore.	Minneapolis	Denver

284

BROWNING
LOCOMOTIVE CRANES

Making Coal Cost Less Per Ton

YOUR coal cost is the sum of the following items:—the price you pay the dealer, the freight, the cost of unloading, the cost of putting it in the fire room, the cost of firing it. You can't control the price or the freight, but you do control the cost of handling.

If you use a Browning Locomotive Crane to handle your coal you will find that your coal—laid on your grates—will cost you appreciably less per ton than when handled by hand. And, just for good measure, your "Browning" will do innumerable other jobs around the plant. A "Browning" is just as much of a money-making machine as if it actually printed hundred-dollar bills.

Better send for a Browning Catalog today—it contains worth-while suggestions.

THE BROWNING COMPANY
CLEVELAND, OHIO, U. S. A.

SALES OFFICES: New York, Chicago, Seattle, Portland, Salt Lake City, Birmingham, Los Angeles, San Francisco, Montreal, Washington, D. C.

This Browning Locomotive Crane does the coaling for the entire plant of the Interlake Paper and Pulp Co., as well as handling the pulp wood. The change from bucket to wood grapple and vice versa is an easy matter.

"Suppose a boiler tube bursts—there'll be no shutdown—thanks to my

Angle, Globe or Elbow Pattern

GOLDEN-ANDERSON

Patented Automatic Double-Cushioned Triple Acting and Non-Return Valves"

"All boiler connections between the nozzle and header are equipped with them—I *know* that my boilers are protected against the sudden reversal of steam flow!" Among the MANY features of these valves are the following:

1. They are the only valves that can be tested in service from the boiler room floor. Opening a small hand valve will give complete assurance that the big valves are faithfully on guard against disaster.
2. They automatically cut out a damaged boiler and prevent the back pour of steam from the other boilers through the rupture. That means no shutdown.
3. They automatically equalize the pressure between all boilers and positively prevent steam from entering a cold boiler in which the engineer may be at work.
4. The double Corliss Dash Pot gives absolute relief from pounding, sticking and chattering. It protects the valve and you.
5. The valves can be closed instantly from distant points by steam or electricity.
6. When fitted with our patented safety latch they may also be opened by hand like an ordinary stop valve.

Also made in the triple acting style that works "both ways" causing instant automatic closure of the valves on every boiler in case a steam pipe lets go.

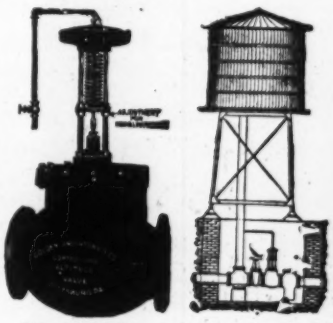
1960 used by U. S. Steel Corporation after making thorough tests of all well known makes.

"Life and Property Insurance Valves"
"Always Ready"—"Work Both Ways"

GOLDEN-ANDERSON
Patent Automatic Cushioned Controlling Altitude Valves

Hold an absolutely uniform water level in tanks, reservoirs and standpipes. No floats or fixtures required. Three ways of closing:

1. Automatically by increasing water pressure.
2. By electricity from distant points.
3. By hand like stop valves.



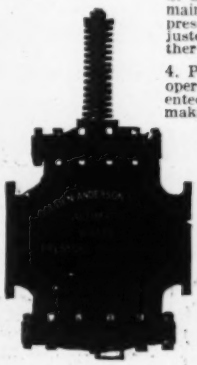
Sizes to 24 in.

"Hosts of References"
"Every Valve with an Absolute Guarantee"

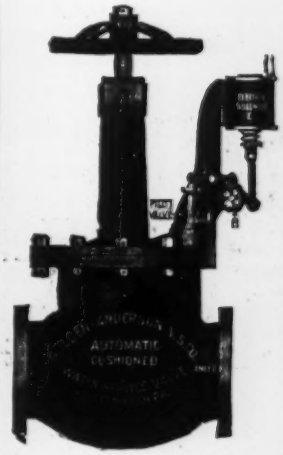
GOLDEN-ANDERSON
Patent Cushioned Water Pressure Regulating Valves

1. Insure perfect control of reduced water pressure, regardless of fluctuations in the initial pressure.
2. Contain no small water passages or complications. No danger of clogging.
3. Easily adjusted to maintain the desired pressure and stay adjusted without further attention.
4. Positively safe in operation. The patented safety piston makes the accidental equalization of high pressure side impossible.
5. Cushioned by water and air.
6. Can be operated electrically from distant points.

Sizes to 24 inches.



GOLDEN-ANDERSON
Patent Cushioned Electric Water Service Valves



1. Give instant control of the water distribution from the pumping plant in case of fire or other emergency.
2. Can be opened or closed by electricity by closing a small switch for a few seconds only. Thus no current is wasted.
3. Can be provided with either D. C. or A. C. solenoid as circuits require.
4. Cushioned in opening and closing both water and air. Positively operate without water hammer, surging, sticking or other trouble.
5. Can be closed by hand like any ordinary valve.

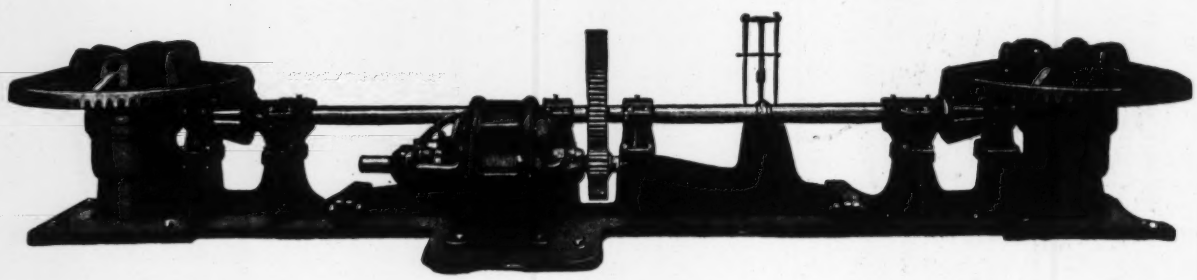
GOLDEN-ANDERSON VALVE SPECIALTY COMPANY

1202 Fulton Bldg. ***Water and Steam Specialties*** **Pittsburgh, Penna.**

COFFIN VALVE COMPANY,

Makers of the Largest Sluice and Gate Valves in America.

A Heavy Twin Gate Hoist Electrically Driven



To operate 16x20 ft. Structural Steel Head Gate

Two Stems Total Load Lifted 31 Tons

We make a specialty of Heavy Gate Hoists

Check Valves
Flap Valves
Foot Valves
Sewer Gates

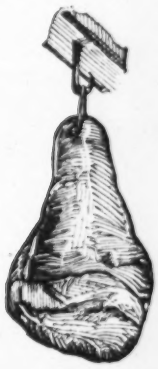
Office and Works Neponset Suburb of

BOSTON, MASS.

Sluice Gates
Gate Valves
Butterfly Valves
Fire Hydrants

REPRESENTATIVES:

New York City: C. W. Bergen & Co., 256 Broadway.
Cleveland, Ohio: Tomlinson Steam Specialty Co., 1597 St. Clair Ave.
Philadelphia, Pa.: DeHuff & Hopkins, Morris Building.
San Francisco, Cal.: Theo. F. Dredge, Monadnock Building.



"What's the Idea of a Ham on a Hook?"

"Well, Chief, we wanted to get up an advertisement on pump foundations (or rather the uselessness of a foundation); and a Ham on a Hook and a foundation are divorced entirely—absolutely no connection. A ham just hangs. It illustrates concretely a salient feature of our pump."

A Pulsometer needs no foundation; hung from a beam, slapped to a wall, or rigged to anything, any place, it is ready for work, and will pump to full capacity. Portable, too, because it is light and can be hauled from job to job.

Economical? Unusually so; because it is a condensing pump and gets double duty out of steam, thus cutting fuel costs half. OR, run it on exhaust steam at no cost.

Continuous operation? Yes, and without attention. Requires no adjustment—cams, rods, pistons, glands, stuffing boxes, and the usually troublesome mechanisms are eliminated.

Oil is unknown to a Pulsometer. No friction is produced at any point during operation, therefore lubrication is unnecessary.

Matter up to 40% solid slides through a Pulsometer as easily as H_2O.

Investigate the Pulsometer for any pumping job if you wish to save time, men and money.

PULSOMETER STEAM PUMP

PULSOMETER STEAM PUMP CO.

Executive Office: 225 West 42nd Street, New York, N. Y.

Agencies in Following Cities:

Henry H. Meyer Company,
110 S. Howard St.....BALTIMORE
Waldo Bros. & Bond Co.,
181 Congress St.....BOSTON
Erwin & Co.,
3734 Cottage Grove Ave.....CHICAGO
Queen City Supply Co.
S. W. Cor. Elm & Pearl Sts.....CINCINNATI
Beckwith Machinery Co.,
1500-02 Lakeside Ave.....CLEVELAND
J. L. Welborn.....HATTIESBURG, MISS.

H. A. Paine, 119 Main St.....HOUSTON, TEX.
Miller Supply Co.....HUNTINGTON, W. VA.
Harron, Rickard & McCone,
225 S. San Pedro St.....LOS ANGELES, CAL.
Hunter Machinery Co.,
208 Wells St.....MILWAUKEE
Wm. H. Ziegler Co.,
423 S. Fifth St.....MINNEAPOLIS
Turner Supply Co.....MOBILE, ALA.
F. H. Hopkins Company.....MONTREAL, CAN.
Woodward, Wight & Co., Ltd.....NEW ORLEANS

Berow Machinery Co.
220 West 42nd St.....NEW YORK CITY
Edelen & Co.,
235 Comm'l Trust Bldg.....PHILADELPHIA
Beckwith Machinery Co.,
108 Parkway, N. S.....PITTSBURGH, PA.
Harron, Rickard & McCone,
139 Townsend St.....SAN FRANCISCO
J. A. Manion, Henry Bldg.....SEATTLE
W. L. Sullivan.....TULSA, OKLA.
Kelly Powell Limited.....WINNIPEG, CANADA

Cameron Pumps are the result of years of experience which have produced a highly developed centrifugal pump of rugged construction, designed in accordance with the most modern engineering theory and practice.

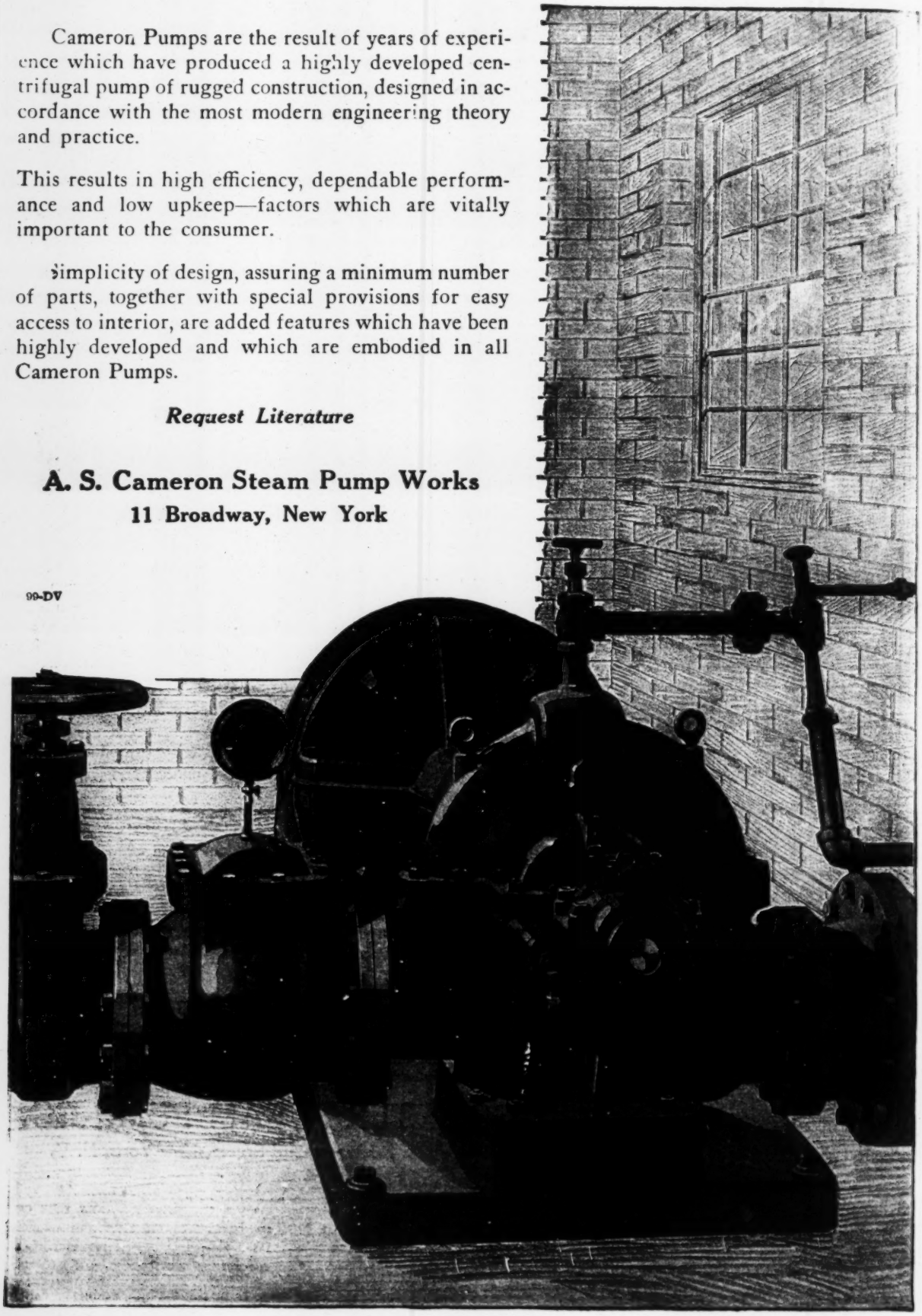
This results in high efficiency, dependable performance and low upkeep—factors which are vitally important to the consumer.

Simplicity of design, assuring a minimum number of parts, together with special provisions for easy access to interior, are added features which have been highly developed and which are embodied in all Cameron Pumps.

Request Literature

A. S. Cameron Steam Pump Works
11 Broadway, New York

99-DV



SAFETY FIRST
"Firmtread"
a safeguard against accidents
Raised diamond provides continuous drain for water in all directions—no pockets in which water can collect and form ice.
Clean cut edge of diamond, similar to the hot rolled edge of a square bar, secured by rolling the design, gives greater resistance to slipping than the rounded edge of pressed patterns.
Extra high diamond prolongs the life of the plate—other plates soon wear smooth and lose their safety feature.
Not all diamond patterns are "Firmtread"—
But "Firmtread" is the only floor plate with all of these features.
Send for descriptive literature and sizes in stock
A Slippery Sidewalk Door—
Are you doing your part to protect pedestrians against slipping accidents in rainy weather?
Specify
Firmtread Floor Plates
For Safety and Economy
JOSEPH T. RYERSON & SON
CHICAGO ST. LOUIS DETROIT BUFFALO NEW YORK

POWER Says → Jeffrey Says:

FROM POWER SEPT. 14th, 1920

Coal Storage and Mechanical Coal Handling

SECURITY in power-plant operation, whether private or public utility in nature, demands greater coal storage these days than in the days when railroad transportation was almost always adequate. The power-plant executive is, therefore, today confronted with a new problem in coal handling on a large scale. This comes most unfortunately at a time when every effort is being made to cut down the amount of labor required. However, the engineer has available many mechanical facilities for coal handling that are proving most efficient in practical operation. The report of the chief engineer of the C

Handle it Mechanically

Some points of refinement that make the Jeffrey Pivoted Bucket Carrier stand head and shoulders above any coal and ashes handling conveyer on the market:

Bucket outline gives greatest capacity for complete discharge of materials—with minimum shock to the Conveyers as a whole, and with minimum wear to the Buckets' Hardened Tripping Cams.

Surfaces, edges and corners of bucket re-inforced for long service.

Steel Cross Rods—connecting Carrier Chains at the bucket lips do not obstruct bucket opening.

Double Bushings in Chains—almost as hard as glass, and tough.

High Carbon Steel Side Bars—and shock proof.

Large Rollers in Chain—tough and hard on tread and in bore.

Bore of Chain Rollers ground to size, too hard to machine.

Catalog No. 210-H, fully illustrates and describes other important features of the Jeffrey Carrier. Send for copy.

THE JEFFREY MFG. CO.
Columbus, Ohio

Branches:

New York
St. Louis
Boston
Charleston, W. Va.
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Philadelphia
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Detroit
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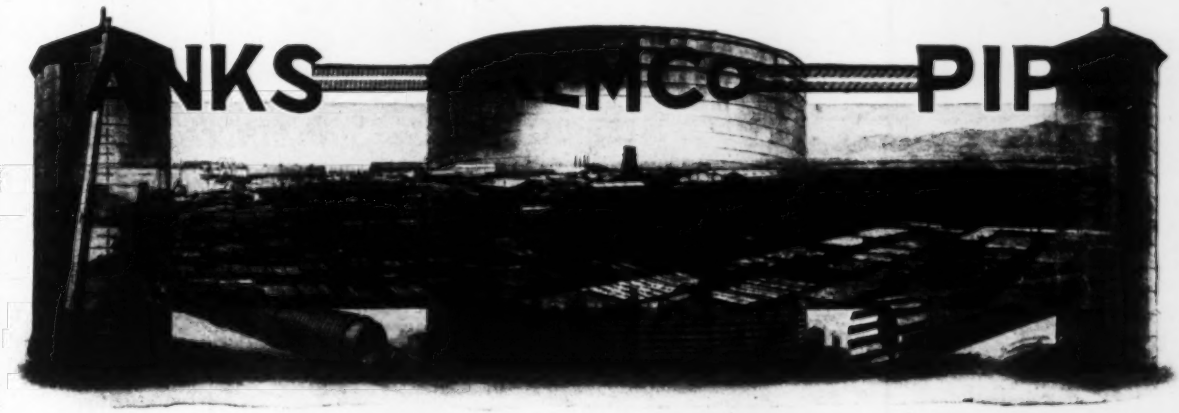


WE WILL SHIP YOU IMMEDIATELY

AT PRICES AND WEIGHTS NAMED BELOW ANY

STANDARD

REMCO TANKS

you desire. They are made from clear, air-dried redwood, free from all defects; manufactured on special machines to minutest accuracy. Guaranteed.

WATER AND OIL TANKS

Made from 2-inch Clear Air-dried Redwood Without Covers

Capacity		Outside Dimensions				Shipping Wt. Lbs.	Price
Gals.	Bbls. 42 Gals.	Diameter ft	Diameter in.	Height ft.	Height in.		
500	12	5	5	3	11	440	$ 32
750	18	5	9	4	11	580	41
1,000	24	6	6	4	11	655	47
1,500	36	7	1	5	11	830	60
2,000	48	8	1½	5	11	975	70
2,500	60	8	4	6	11	1,145	81
3,000	71	9	1½	6	11	1,270	92
3,000	71	8	5	7	11	1,290	92
4,000	95	9	10½	7	11	1,555	116
4,000	95	9	2½	8	11	1,580	116
5,000	119	10	11	7	11	1,745	131
5,000	119	10	3½	8	11	1,790	131
6,000	143	11	4	8	11	2,010	148
7,000	166	12	1½	8	11	2,160	158
8,000	190	12	3	9	11	2,375	174
10,000	238	13	7½	9	11	2,770	200

Made from 3-inch Clear Air-dried Redwood

Capacity		Outside Dimensions				Shipping Wt. Lbs.	Price
Gals.	Bbls. 42 Gals.	Diameter ft.	Diameter in.	Height ft.	Height in.		
10,000	238	13	10½	9	11	4,660	$ 300
12,000	285	13	10½	11	11	5,370	345
15,000	357	15	6	11	11	6,080	405
20,000	476	17	10	11	11	7,280	470
25,000	593	18	4	13	11	8,510	550
30,000	714	20	2½	13	11	9,800	620
40,000	952	23	0	13	11	11,300	743
50,000	1190	24	0	15	11	13,400	900
60,000	1428	26	3	15	11	15,100	990
70,000	1666	28	4	15	11	16,700	1125
80,000	1904	30	3	15	11	18,000	1230
90,000	2142	30	2	17	11	19,800	1340
100,000	2380	30	0	19	11	21,100	1470

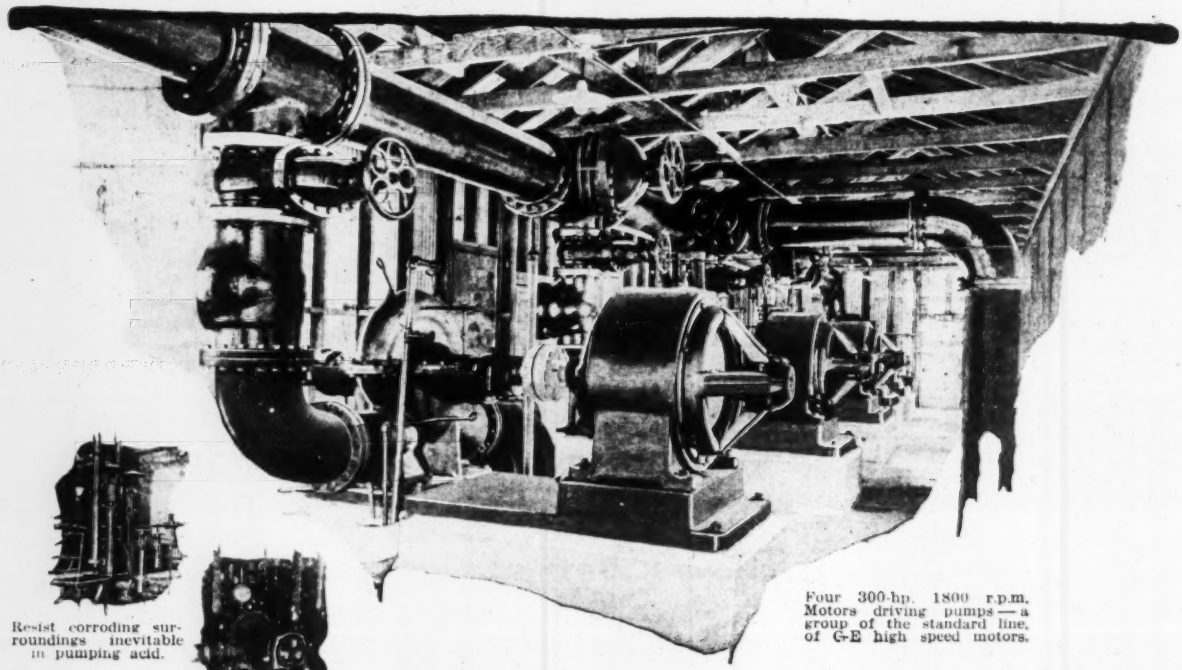
All prices are for tanks complete, K. D., F. O. B., Pittsburgh, Cal.

The above tanks are standard sizes. We design and manufacture tanks of all sizes up to 650,000 gallons capacity and tanks of special shapes to meet all requirements.

Made only by

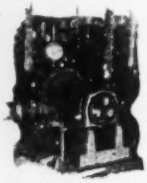
Redwood Manufacturers Co.
1605 Hobart Building
San Francisco

"CORPORA NON AGUNT NISI SOLUTA"—*Substances do not react until dissolved—is the basis for essential electrical applications in the chemical industry*



Four 300-hp. 1800 r.p.m. Motors driving pumps — a group of the standard line, of G-E high speed motors.

Resist corroding surroundings inevitable in pumping acid.



The direct-connected motor is the ideal drive for the centrifugal pump.

Motor driving first and second carbonation pumps in beet sugar factory

Wherever a vacuum pump has to be installed—a G-E motor can be placed to operate it.

G-E high speed motor—made and designed especially for direct-connected centrifugal pumps.

The Need of Electric Motor-Driven Pumps

The ancient Alchemists, in the above Latin axiom, recognized the fact that without solution there would be no chemistry. The modern industrial chemist recognizes the same fact by usually converting his bulk materials into liquid form in the initial stages of the process.

Consequently chemical engineering problems are largely problems in the efficient handling of liquids and the most generally useful machines for this purpose are electrically operated centrifugal, rotary and plunger pumps.

The General Electric Company has developed a line of motors suitable for driving all types of pumps. These motors possess the necessary qualifications for service even when placed in inaccessible locations and neglected for long intervals. They have proved their ability to withstand moisture, corrosive atmosphere, extremes of temperature and other severe operating conditions.

G-E engineers have developed also a variety of standard lines of automatic control for stopping pumps when tanks are full, predetermined pressures reached, etc.

When submitting your pumping problems to a manufacturer of this equipment—specify G-E motor and control.

The G-E specialist in our nearest office is ready to work with you—ask him to call.

General Electric Company

General Office Schenectady, N.Y.

Sales Offices in all large cities

43B-538

OFFICIAL PROPOSALS

Bids: Jan. 19.

Construction of Schools

BOARD OF EDUCATION
Buffalo, N. Y.

Pursuant to subdivision 8 of section 875 of the education law, sealed proposals for furnishing the labor and material required in the construction of the following school buildings located in the City of Buffalo, N. Y., are invited and will be received by the Board of Education at its office, 1401 Telephone Building, Buffalo, N. Y., until 2 o'clock p.m., January 19th, 1921, at which time said proposals will be publicly opened and read.

A—Primary School Building, District No. 21, located on Amherst Street, at Park Lake Avenue;

B—Addition to Elementary School No. 21, located on Hertel Avenue, between Delaware Avenue and Camden Avenue;

C—Elementary School Building, District No. 9, located on Poplar Street at Doat Street;

D—Elementary School Building, District No. 1, located on Porter Avenue at Niagara Street;

E—Addition to Elementary School No. 60, located on Ontario Street at Saratoga Street;

F—Intermediate School No. 6, located on Northampton Street, east of Fillmore Avenue;

G—Intermediate School No. 2, located on Hertyle Avenue at Shoshone Street;

H—Intermediate School No. 7, located on Roslyn Street (extended) at Lang Avenue;

I—Intermediate School No. 8, located on South Elmwood Avenue at Tupper Street;

J—Intermediate School No. 9, located on Sherman Street at Lovejoy Street;

K—Intermediate School No. 11, located on Moreland Street at Bailey Avenue;

L—Intermediate School No. 12, located on Lorraine Avenue, near Abbott Road.

Instruction to bidders and other information, together with plans and specifications for the three buildings noted under A, B and C above, may be procured on and after November 9th, 1920, from the office of the Associated Buffalo Architects, Inc., Room No. 40, No. 232 Delaware Avenue, Buffalo, N. Y. Plans and specifications for the three buildings noted under D, E and F above, may be procured from the same source on and after December 1st, 1920; and plans and specifications for the remaining Intermediate School Buildings noted under G to L inclusive, may be procured on and after December 15, 1920.

A deposit of Fifty Dollars ($50.00) will be required on each set of plans taken from the office of the Architects, which sum will be repaid upon return of said documents intact and in good condition to the Architects not later than February 1st, 1921.

To be entitled to consideration, the proposals must be made upon the forms provided by the Architects, which must be fully completed, and must be delivered to the Board of Education not later than 2 o'clock p.m., January 19th, 1921.

All bids must be without conditions inserted by the bidder or limitations by letter or otherwise.

Security to accompany bid must be furnished by all bidders as provided in bid form.

The Board of Education reserves the right to reject any and all bids.

JAMES STORER, Secretary.

Bids: Jan. 18

Engine and Pump

Okeechobee, Fla.

Bids will be received up until January 18, 1921, for one engine and pump complete, capable of 350 G.P.M., against total head of 140 ft., approximately 65 lbs. pressure.

W. W. DUNNICLIFF,
City Clerk.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Wednesday morning (9 o'clock) can usually be published in the issue out the next day. Special price for Official Proposals, 40 cents a line.

Bids: Jan. 20.

Indian Orchard Bridge

Springfield, Mass.

Sealed lump sum price proposals for furnishing, fabricating, erecting and painting the structural steel and fences for the "Indian Orchard Bridge" over the Chicopee River between the City of Springfield and the Town of Ludlow, Hampden County, Massachusetts, will be received at the office of the City Clerk, Room No. 105, Administration Building, Springfield, Mass., until twelve o'clock noon, Thursday, January 20, 1921, at which time they will be publicly opened and read.

This structure consists of two (2) spans deck riveted trusses with I-beam floor system. The general dimensions are: 24 ft. between fences, truss centers 16 ft., length of each span 87 ft. 4½ in., effective depth of trusses 10 ft. 9 in., total length 180 ft. 3 in.

Plans, specifications, proposal blanks and forms of contract and bond may be obtained at the office of the Superintendent of Streets and Engineering, Room No. 326, Administration Building, Springfield, Mass.

Masonry changes and the furnishing and placing of the wooden flooring will not be included in the contract. The contractor will be requested to remove the existing Truesdell Truss Bridge together with its wooden floor system and its temporary supports.

All proposals must be addressed to the Board of Supervisors, City of Springfield, Mass., and the envelope conspicuously marked "Proposal for Indian Orchard Bridge." Proposals must be made upon the forms prepared for the purpose, fully filled in, dated and signed. Proposals of other form, or not properly filled in will be rejected. Every proposal must be accompanied by a certified check in the amount of One Thousand ($1,000.00) Dollars, made payable to the Treasurer of the City of Springfield, Mass., which check will be returned to the bidder upon the rejection of his proposal or upon his executing the contract and filing a satisfactory bond if his proposal is accepted. Should a bidder whose proposal is accepted, refuse or neglect to sign the contract or fail to furnish a satisfactory bond, the City will deduct from the $1,000 check an amount equal to the difference between bid first accepted and the amount of the contract as finally let. This deduction by the City will be as liquidated damages and not as a penalty.

The bidder whose proposal is accepted will be required to furnish at his expense and file with the City, within ten days from the award, a surety bond duly executed by a surety company authorized to do business within the Commonwealth of Massachusetts, in the amount of Ten Thousand (10,000.00) Dollars for the faithful performance of the contract.

Bidders must state in their proposal the time in which they will agree to complete the work if awarded the contract. This time of completion will be embodied in the contract and made an essential part thereof. Bidders shall upon request, furnish the Board of Supervisors with adequate evidence of their ability to correctly and expeditiously perform the work if awarded the contract.

The Board of Supervisors expressly reserves the right to reject any or all proposals and the right to accept any proposal, or to award the work as deemed to the best interests of the City. Written notification of the acceptance of any proposal sent by Registered Mail to the address given on the proposal form shall be considered an adequate notice of award.

DEPARTMENT OF STREETS
AND ENGINEERING,
Springfield, Mass.
By Robert P. Marsh,
Superintendent

Bids: Jan. 12.

Drainage Work

Muscatine, Ia.

In Levee District No. 17, Muscatine County, Iowa.

Notice is hereby given that in pursuance of an order of the Board of Supervisors of Muscatine County, Iowa, made on the 20th day of December, A. D. 1920, sealed bids will be received by the undersigned for said Board up to 1:30 o'clock, on the 12th day of January, A. D. 1921, for construction of a levee improvement in Levee District No. 17 of Muscatine County, Iowa, in accordance with approved plans, profile, specifications, instructions to contractors, blank form for bids, contract and bond therefor all on file in my office.

Said improvement involves placing about 31,000 cu.yd. of dirt in levee embankment in a total length of about 15,000 ft.

Certified check for ten (10) per cent of amount of bid must accompany bid.

Monthly estimates rendered for 80% of work completed and paid in warrants, improvement certificates, or bonds by County Treasurer and total in warrants, improvement certificates, or bonds on completion and acceptance of the work.

Work of excavation shall commence on or before March first, 1921, and be completed on or before December first, 1921.

Instructions and specifications furnished on application to C. H. Young, Chief Engineer, Central States Engineering Co., Muscatine, Iowa.

F. W. JOHNSTON,
County Auditor,
Muscatine County,
Muscatine, Iowa.

Bids: Jan. 6.

Miami River Bridge

Miami, Fla.

Sealed proposals to be filed with the City Clerk will be received by the City of Miami, Florida, up to 7:30 p.m., Jan. 6, 1921, for the construction of a bridge over the Miami River at Avenue G. The bridge is a double leaf steel bascule span with piers and embankment approaches. The clear span is 115 ft.; the total length of improvement 495 ft. One 30-ft. roadway; two 6-ft. walks. Reinforced concrete bascule piers and retaining walls.

Bids upon a lump sum basis and also upon a cost plus a fee basis will be considered. With each bid there shall be a certified check for at least ten per cent of the bid, made payable to the City Treasurer. This check will be forfeited as liquidated damages by the bidder if he is awarded the contract but fails promptly to execute contract and bond, or will be returned to him upon such execution. Checks of other bidders will be returned promptly. The contract will be awarded to the lowest competent responsible bidder, but the City may reject any or all bids, adopt either form for bid, and waive informalities.

Plans and specifications may be examined in the offices of Chas. W. Murray, City Engineer, Miami, Florida, and of Harrington, Howard & Ash, Consulting Engineers, at Jacksonville, Florida, not listed in Jacksonville, and 1012 Baltimore Avenue, Kansas City, Mo. Copies may be secured from the Consulting Engineers at Kansas City by depositing $25.00 Such copies shall be returned and refund of $20.00 made.

OFFICIAL PROPOSALS

Bids: Jan. 4.

Canal Improvements

OFFICE OF
SUPERINTENDENT OF PUBLIC WORKS
Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Tuesday, January 4th, 1921, at which place and hour they will be publicly opened and read, for improving the Cayuga and Seneca canal pursuant to the provisions of Chapter 391 of the Laws of 1909, and Chapter 147 of the Laws of 1903, and amendatory laws, as follows:

CONTRACT "V"

Cayuga and Seneca Canal—Section 1.

For constructing a concrete cut-off wall at the north end of Dam No. 2, Seneca Falls.

Sheets 1 and 2.

Plans may be seen and detailed specifications, engineer's estimate of quantities, proposal blanks, forms of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., and at the canal office, Spaulding's exchange, Buffalo, N. Y.

Copies of detailed plans or drawings may be obtained from the State Engineer and Surveyor at Albany, N. Y. upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be acompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York issued by a national or state bank in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or then in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of the contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work according to the contract price, and an additional bond, known as the labor bond, in the sum of ten percentum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the State for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

EDWARD S. WALSH,
Superintendent of Public Works.
November 3 th, 1920.

OFFICIAL PROPOSALS

Bids: Jan. 12.

Laundry Equipment

Binghamton, N.

Sealed proposals for Laundry chinery and Electric Elevator. L dry Building, Binghamton State Hos Binghamton, N. Y., will be rec by the State Hospital Commission, itol Albany, N. Y., until 3 o'clock P on Wednesday, January 12, 1921, when will be publicly opened and read. Propo shall be enclosed in an envelope furni by the State Architect, sealed and dressed, and shall be accompanied by certified check in the sum of five per (5%) of the amount of the proposal. T contractors to whom the awards are m will be required to furnish surety compa bond in the sum of fifty per cent (50 of the amount of contracts within thir (30) days after official notice of award of contract, and in accordance with the ter of Specifications No. 3608 and No. 357 including Addenda No. 1. The right is reserved to reject any or all bids. Drawings, specifications and blank forms of proposal may be consulted at the Binghamton State Hospital, Binghamton, N. Y.; at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and at the Department of Architecture Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

Dated: December 18, 1920.

E. S. ELWOOD
Secretary, State Hospital Commission.

U. S. GOVERNMENT

Bids: Jan. 17

PROPOSALS FOR DREDGING. U. S Engineer Office, 616 Army Building, New York City. Sealed proposals will be received here until 12 m., January 17, 1921, and then opened, for dredging in Passaic River, N. J. Further information on application.

Put Public Buying on an Efficiency Basis

Now, more than ever before, it is important that those having contracts to let, whether for new work or the furnishing of machinery or supplies, should consider the best methods of securing extensive competition and low bids.

Thousands of reliable contractors and manufacturers constantly seek opportunities to bid on contracts for public work or supplies. They compete for it. That keeps public expenditures down. It makes the taxpayers' money go farther. It puts public buying on an efficient basis. It makes local bidders figure more closely.

These contractors and manufacturers naturally seek news of contracts where it is most plentiful. They read

ENGINEERING NEWS-RECORD
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the best known and most widely read paper used for the advertising of contracts to be let. Practically every worth-while contractor and manufacturer who wants to figure on public contracts reads Engineering News-Record. No guessing. No uncertainty. Engineering News-Record, with its circulation of 30,000 copies weekly, reaches practically *all* the men who would be interested in advertised contracts.

Proposal Advertising Rate, 40 cents a line.

As a government, state or municipal engineer, or public official you should use this means of giving your taxpayers the biggest value for their money. Advertise your contracts in the News-Record—the one nationally recognized medium for this class of advertising.

Look at the Proposal in this issue and see how other communities use it.

0063

OFFICIAL PROPOSALS

Bids: Jan. 4.

Construction of Crib

COUNTY OF MERCER
STATE OF NEW JERSEY

Trenton, N. J.

Proposals for Cribbing at Olden Avenue Bridge, Trenton, N. J.

The Board of Freeholders of Mercer County will receive bids on January 4th, 1920, at 2:30 o'clock in the afternoon, at their regular place of meeting, Court House, Trenton, N. J., for constructing a stone and timber crib for protection to draw span of Olden Avenue Bridge over the Delaware and Raritan Canal, Trenton.

The estimated amount of work is approximately as follows:

14 Cribs of 3 different types
320 tons of building stone for crib fillers
4 040 lb. of spikes, washers, bolts, nuts, etc.
10,000 ft. (board measure) of new lumber
(Estimated cost, $7,500.00).

Prospective bidders are referred to plans and specifications covering the above work prepared by Harry F. Harris, Mercer County Engineer, which plans and specifications are on file in his office at the Court House, Trenton, New Jersey. Copies of said plans and specifications may be obtained upon deposit of the sum of two dollars, which will be refunded if the plans and specifications are returned in good condition within 48 hours after the bids are opened.

Each bid must be accompanied by a certified check in the amount of two hundred dollars, ($200.00), payable to Edgar G. Weart, County Collector, also py a proposition from a surety company fulfilling the requirements of Section 507, Chapter 185, P. L., 1918.

The right is reserved to reject any or all bids and to waive any immaterial defect or informality in any bid should it be in the interest of the County to do so.

FRANCIS A. CRAWFORD,
Director of Dept. of Bridges & Culverts.

OFFICIAL PROPOSALS

Bids: Jan. 12.

Drainage Work

Muscatine, Ia.

In Sub District No. 1 of Drainage District No. 13, Muscatine, Iowa.

Notice is hereby given that in pursuance of an order of the Board of Supervisors of Muscatine County, Iowa, made on the 20th day of December, 1920, sealed bids will be received by the undersigned for said Board up to 1:30 o'clock P. M. on the 12th day of January, 1921, for construction of Drainage Improvements in Sub District No. 1 of Drainage District No. 13 of Muscatine County, Iowa, in accordance with approved plans, profiles, specifications and bond therefor, all on file in my office.

Said improvement involves digging two ditches designated "Main Ditch" and "Branch A."

The Main Ditch is about 16,550 ft. long and involves moving approximately 47,150 cu.yd. of dirt. Branch "A" is about 4,170 ft. long and involves moving approximately 9,020 cu.yd. of dirt.

Monthly estimates will be rendered for eighty (80) per cent of the work completed and paid in drainage warrants, certificates, or bonds by the County Treasurer and the total in warrants, certificates, or bonds upon completion and acceptance of the work.

Work of excavation shall commence on or before March first, 1921 and be completed on or before December first, 1921.

Instructions and specifiations furnished on application to C. H. Young, Chief Engineer, Central States Engineering Company, Muscatine, Iowa.

F. W. JOHNSTON,
County Auditor,
Muscatine County,
Muscatine, Iowa.

U. S. GOVERNMENT

Bids: Jan. 10.

PROPOSALS FOR DREDGING.—U. S. Engineer Office, 329 Customhouse Bldg. New Orleans.—Sealed proposals for dredging in the Intracoastal Waterway between Mermentau and Calcasieu Rivers, La., will be received here until 11 A.M., January 10, 1921. Further information on application.

Bids: Jan. 17.

PROPOSALS FOR BOILERS.—Office of the Secretary, Mississippi River Commission, 1311 International Life Bldg., St. Louis, Mo.—Sealed proposals will be received here until 12 noon, Jan. 17, 1921, for furnishing six return-flue boilers for steamboat. Further information on application.

Bids: Jan. 20.

U. S. ENGINEER OFFICE, 2nd District, Cincinnati, O., Dec. 21, 1920.—Sealed proposals will be received here until 10 a.m. (Central Standard Time), Jan. 20, 1921, and then opened, for constructing or fabricating ready for constructing, steel hull for snag boat "Kentucky." Further information on application. W. P. Stokey, Lt. Col. Engrs.

Bids: Jan. 20.

U. S. ENGINEER OFFICE, Galveston, Texas—Sealed proposals will be received here until 12 m., January 20, 1921, and then opened, for dredging Houston Ship Channel, Texas. Further information on application.

Bids: Jan. 18.

PROPOSALS FOR STERN-WHEEL STEEL STEAMBOAT "LUTHER L. GRIFFITH."—Office, Mississippi River Commission 1st and 2d Districts, Customhouse, Memphis, Tenn.—Sealed proposals will be received here until 11 a.m., Jan. 18, 1921, and then opened, for furnishing the stern-wheel steel steamboat "Luther L. Griffith." Further information on application.

Bids: Jan. 7.

PROPOSALS FOR DREDGING AND WHARF CONSTRUCTION—United States Engineer Office, Norfolk, Va.—Sealed proposals will be received here until 12 o'clock noon, Jan. 7, 1921, and then opened, for dredging in the Elizabeth River, at Norfolk, Va., and constructing a timber wharf partially surrounding the dredged area. Further information on application.

What SWART Service is

¶Swart Service on Contract Bonds is all—and possibly much more—than you might expect of a combination of 10 years' successful experience as an engineer, plus 8 years' experience in specializing on Contract Bonds and Compensation Insurance, plus a personal acquaintance with the underwriters established through years of daily and intimate contact. ¶It is as different as it is better,—and, transposing the words, it is as much better as it is different. ¶Either way that is saying "a lot." ¶Swart Service costs you no more than the ordinary sort—frequently not as much, considering the results. It will cost you nothing to learn more about it. Let's get acquainted.

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To those who can serve us—and we them

We would like you to get acquainted with the Contractors, Engineers, Architects and city departments in your vicinity, if you happen to live in any one of the following cities:

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Cincinnati, Ohio
Concord, N. H.
Dallas, Tex.
Eau Claire, Wis.
El Paso, Tex.
Erie, Pa.
Ft. Smith, Ark.
Harrisburg, Pa.
Hartford, Conn.
Jacksonville, Fla.
La Crosse, Wis.
Little Rock, Ark.
Olympia, Wash.
Paterson, N. J.
Peoria, Ill.
Pittsfield, Mass.
Poughkeepsie, N. Y.
Quebec, Que.
Rockford, Ill.
Sacramento, Calif.
Salem, Ore.
Savannah, Ga.
Sioux City, Ia.
Springfield, Ill.
Tallahassee, Fla.
Tulsa, Okla.
Utica, N. Y.

Assuming that you are in a position to spare an hour or two during business hours, *Engineering News-Record* would like you to act as correspondent for its

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Bear in Mind: You don't have to be an engineer; you just need to be energetic, conscientious, and have some time available for making calls during business hours.

You will receive full instructions and will be paid for every Construction Report that meets our clearly-stated requirements. Get out your pen and ink and write me your qualifications, including time available.

L. V. FLETCHER, Engineering News-Record
Tenth Ave. at 36th St., New York

Home at 6 p.m.

to bed at—?

The hours between home-coming and bed-time are the golden hours of opportunity for the man with the get-a-head spirit. Many successful men can look back to these usually unaccounted-for-hours as the time in which they prepared themselves for the bigger things ahead.

If you are just a plain everyday draftsman, look ahead. Begin now to prepare yourself during spare hours for such positions as: Chief Draftsman, Structural Steel Designer, Engineering Salesman, Assistant Chief Engineer and Chief Engineer.

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(By Mail)

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Reinforced Concrete Engineering
Structural Steel Designing
Concrete Drafting and Estimating

Wilson Engineering Courses will help you to the knowledge necessary for your advancement. They are courses in experience—not theory—embodying 30 years' experience of a successful engineer. **WILSON courses are not "cut and dried" but are kept constantly abreast of latest methods and newest developments.**

For the **technical** man employing shaky methods, the **practical** man looking toward the job ahead, and for the **high school graduate** of ability desiring special studies in structural engineering, the WILSON courses are ideal. Select the one in which you are interested, then let us send you full information.

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Concrete Drafting and Estimating ☐

Gentlemen: I am interested in the WILSON course checked and shall be pleased to receive further particulars.

Name .....

Address .....

POSITIONS VACANT

CIVIL engineer wanted capable of acc ing a position as city engineer; loc within ten miles of Boston. Salary $ per year. Applicant will submit account of his experience. P-734, News-Record.

ENGINEER capable of estimating and c tracting for miscellaneous and orn mental iron work in connection wi structural steel shop located at Detro Michigan. Apply giving experience. P-71 Eng. News-Record, Leader-News Bldg Cleveland.

FIELD draftsman wanted for topographi surveying party working in the South P-716, Eng. News-Record, Real Estat Trust Bldg., Phila.

GRADE or concrete foreman wanted, not over 36 years of age, and from Middle West. Must have equivalent to a high-school education; opportunity for right man. P-730, Eng. News-Record, Old Colony Bldg., Chicago.

GRADUATED mechanical engineer wanted preferably with pulp and paper mill experience, for large Canadian sulphite mill. Please state age, experience, salary expected and inclose copies of references. P-746, Eng. News-Record.

REINFORCED concrete engineer wanted by large firm of building contractors in Philadelphia; must be able to design, estimate and detail all classes of reinforced concrete structures, also must be familiar with all modern methods of design. Give age, when available, salary expected and a detail of experience. P-693, Eng. News-Record, 935 Real Estate Trust Bldg., Phila.

SEVERAL structural steel draftsmen wanted. Apply Hay Foundry & Iron Works, Newark, N. J.

EMPLOYMENT AGENCIES

GENERAL Engineering Agency, Jackson Bldg., Pittsburgh, Pa., requires experienced municipal designers, city concrete sewers, draftsmen, structural mill, bridge details, western, railway valuation appraisals buildings and equipment. Reinforced concrete factories, paper mills. Draftsmen for central power stations. Stadia and plane table men, hydrographic and land surveys, Great Lakes and Appalachian Mountains. Mine draftsmen, surveyors, Pennsylvania, Kentucky, Tenn.

Experienced
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A corporation controlling thirty large and varied industries desire to secure a Director of Construction who is a real managing executive. He will be responsible for the making of plans and estimates; letting of contracts; supervision of construction; placing of machinery and equipment; installation of heating and ventilating systems, and the caring for sewerage disposal. It will be up to the man who fills this position to build his own organization for handling the work.

At present this corporation has ten large manufacturing plants in the process of construction—three are complete plants—seven are additions to present plants. Nearly every kind of building construction is to be seen in these different plants.

Qualifications:

1. He must be between 30 and 40 years of age, a citizen of the United States, and preferably a University man, from an architectural or civil engineering school.
2. At one time or another he should have been a draftsman and chief draftsman in an architectural office; production manager in getting out plans, specifications, etc., and handling bids and letting contracts; who has worked at various positions on construction, such as foreman, inspector and superintendent, for it will be his responsibility to assume full authority for dealing with contractors to see that he is getting what he pays for.
3. He must be conversant with all phases of industrial business construction from an architectural, engineering and contractor's viewpoint.

This is a big job for a big man.

Applications will be received in strict confidence, and only those which fully state experience, qualifications, age, religion, business and family connections, as well as references, will be carefully and thoroughly considered.

Such a man is invited to address:

"CONSTRUCTION", care of
Arthur M. Crumrine, *Personal*
Room 606, Crumrine Bldg., 43 West Long St.
COLUMBUS, OHIO

EMPLOYMENT AGENCIES

TEACHERS wanted: A professor of highway and civil engineering for head of the department, salary $3,900; an associate professor at salary of $2,800; a professor of mechanical engineering at salary of $2,500. These are university positions for September. Address, The Interstate Teachers' Agency, Macheca Bldg., New Orleans, La.

EMPLOYMENT SERVICE

EXECUTIVES qualified for salaries of $2,500 to $25,000 and upwards, are invited to communicate in strict confidence with the undersigned, who will conduct preliminary negotiations for such positions. The procedure used is peculiar to this service, differing essentially from all others; and is constructive and initiative; applied individually; and in no way jeopardizing present connections. Established 1910. Send name and address only for particulars. R. W. Bixby, Inc., 304 Lockwood Building, Buffalo, New York.

POSITIONS WANTED

Civil Engineers

CHIEF Highway engineer, age 36, graduate civil engineer, associate member American Society Civil Engineers, employed as executive supervisor of construction and maintenance of highways would consider position with private firm or municipality in similar capacity. PW-680, Eng. News-Record.

EXECUTIVES
seek'ng superior positions find our confidential service extremely satisfactory. Let our Mr. H. H. Harrison confidentially negotiate for you suitable positions with proper employers, as he has successfully done for thousands of others since 1909. Inquiries invited.
THE NATIONAL BUSINESS BOURSE
Confidential Negotiators
Association Building—Ch'cago

POSITIONS WANTED

CIVIL engineer, graduate, 17 years' experience, real estate development, housing, municipal work, highways, wharves, docks, industrial plants, buildings, hydroelectric developments, railroads; registered in Michigan, desires position, Middle West preferred. PW-655, Eng. News-Record, Leader-News Bldg., Cleveland.

CIVIL engineer, 20 years' general experience, design, construction and operation, speaks Spanish, references. Will accept commercial or fiduciary position. Go anywhere, Mexico or Central America preferred. PW-700, Eng. News-Record, Old Colony Bldg., Chicago.

CIVIL engineer, technical graduate, 45 years of age, and speaking several languages, will be open for engagement March 1st, 1921. Expert on structural engineering and reinforced concrete design and construction. Would be most suitable as chief engineer for industrial plant, assuming full charge of building maintenance, and building developments. Has had varied experience with pulp-paper mill designs, steel plants, smelter plants, cement plants, gypsum plants covering every type of structure from workingmen's cottages to shop structures, and such structures as hotels, schools, hospitals, etc., owned and operated by private corporations. Capable and very efficient. Also good executive. No objection to foreign countries. Salary not less than $6,000 per year. PW-685, Eng. News-Record, N. Y. City.

CIVIL and sanitary engineer, age 29, University graduate; seven years' experience, tunnel work, sewage disposal, drainage, general sanitation, water supply, road work in the tropical Spanish speaking countries; location immaterial; available at short notice. PW-722, Eng. News-Record.

CIVIL engineer—recent graduate, seeks opportunity, sales or construction field. Building preferred; good personality, character and appearance. PW-684, Eng. News-Record.

POSITIONS WANTED

CIVIL engineer; 25; technical education, single, three years' experience in field and office on roads, docks, topography land surveys and general construction. Can take responsible charge in office or field. Services anywhere. PW-731, Eng. News-Record, Real Estate Trust Bldg., Phila.

CIVIL engineer, 27 years old. C. E. degree, desires position with construction company in Cleveland. Estimating preferred. PW-733, Eng. News-Record, Leader-News Bldg., Cleveland.

CIVIL engineer and executive, technical graduate, member of A. S. C. E.; 10 years' broad experience in designing and supervising, also in administration and investigation work; specialist in hydraulics and concrete; now open for engagement in the Eastern States. PW-748, Eng. News-Record, Real Estate Trust Bldg., Philadelphia.

GRADUATE civil engineer, 27, with four years' experience, chiefly in industrial plant maintenance and hydraulic dredging, desires position offering experience and prospects. Reference is present employer by whom employed for past two years. Location immaterial. PW-694, Eng. News-Record, Real Estate Trust Bldg., Phila.

Surveying

GRADUATE, 14 years' experience, property and topographic surveying, also subdivision planning, highway, sewer and water work. PW-654, Eng. News-Record.

ESTIMATOR superintendent, 12 years with high class construction concerns, reliable and up to date estimator, organizer and executive. New York interview. PW-618, Eng. News-Record.

ENGINEERING NEWS-RECORD

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ADD 5 WORDS for box number in undisplayed ads if replies are to any of our offices. There is no extra charge for forwarding replies.

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4 to 7 in., $4.80 an in. 50 to 99 in., $4.40 an in.
8 to 14 in., $4.70 an in. 100 to 199 in., $4.30 an in.

POSITIONS VACANT

EMPLOYMENT

POSITIONS WANTED

Positions Wanted Continued from Page 73

POSITIONS WANTED

Bridge and Structural

STRUCTURAL designer, graduate C. E., 7 years' experience on reinforced concrete and steel commercial and industrial buildings, also railroad bridges and other structures, desires responsible position. PW-370, Eng. News-Record.

STRUCTURAL engineer, graduate; seven years' experience, design reinforced concrete, structural steel, plant layouts, and hydro-electric work; initiative and executive ability. PW-620, Eng. News-Record, 935 Real Estate Trust Bldg., Phila., Pa.

STRUCTURAL engineer, graduate C.E. with 20 years' experience in all classes of construction work including concrete. Have been in charge of both design and outside construction, desires position of responsibility. PW-745, Eng. News-Record.

TECHNICAL graduate, age 22, desires office or field position; three years' experience structural drafting, computing. PW-738, Eng. News-Record.

Drafting and Designing

DESIGNER, cheker, detailer, ten years' experience structural steel, concrete, mill buildings, technical graduate. New York position preferred. PW-626, Eng. News-Record.

DRAFTSMAN, excellent tracer and letterer, desires position in Newark or New York. Available at once. PW-623, Eng. News-Record.

MECHANICAL draftsman, experienced in conveying machinery, power plant work, etc.; also plant layout, automatic fire protection and architectural drafting; experience nine years. Louis J. Rauch nberger, 304 Ave. D, College Point, N. Y.

STRUCTURAL checker, designer and detailer. Technical graduate, long experience, moderate salary, with permanent position. PW-616, Eng. News-Record.

POSITIONS WANTED

Superintendents

CONSTRUCTION superintendent, age 37, married, 15 years' experience, general construction and building supt.; available January 10th.; location immaterial. Can handle labor and get results. PW-710, Eng. News-Record.

CONSTRUCTION superintendent, industrial buildings, locks, dams, railroad construction; graduate engineer; present salary $4,000; available at once; New York interview. PW-735, Eng. News-Record.

CONSTRUCTION superintendent high tension transmission, catenary or cross-country interurban; extensive experience. Can apply machinery and give low cost. Age 48. PW-741, Eng. News-Record, Real Estate Trust Bldg., Philadelphia.

POSITIONS WANTED

CONSTRUCTION superintendent, 14 years' practical experience reinforced concrete buildings, technical education; available Jan. 1; location East preferred; salary $250. PW-740, Eng. News-Record.

ENGINEER open for a position as superintendent or engineer with contracting or engineering firm; 18 years' experience water supply, sewerage, reinforced concrete and building construction, technical school graduate. PW-551, Eng. News-Record.

PLANT superintendent or master mechanic, age 35, married; salary $3,000. PW-742, Eng. News-Record.

SUPERINTENDENT—any kind of state or county road work; South preferred, where work will go all winter. Can furnish any part of organization. PW-653, Eng. News-Record, Real Estate Trust Bldg., Philadelphia.

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Construction Engineer
Available Jan. 15th. Civil Engineer, age 40. Very successful as general superintendent on large operations. Have built several industrial plants complete with power houses and mechanical equipment. Will go anywhere. Salary to be adjusted in accordance with future opportunities offered.
PW696—Engineering News-Record
10th Ave. at 36th St., New York City

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OUR RECORD
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MIELE BROS. TELEPHONE, CANAL 8970
139 MULBERRY ST., NEW YORK CITY

POSITIONS WANTED

CONSTRUCTION engineer, age 42; 18 years' experience, desires position on large industrial, mining, pipe lines or power work; experience embodies designing, detailing, specifications, contracts and superintendence, executive in both office and field; salary depending upon location and conditions. PW-737, Eng. News-Record.

SUPERINTENDENT on construction work wants position after January 1, 1921, with construction company as superintendent or assistant superintendent; 12 years' experience; prefer heavy concrete work; talk Spanish. First class reference. Address L. V. P., 202 N. 3rd Street, Steubenville, Ohio.

SUPERINTENDENT of building construction desires engagement with architect, engineer or general contractor; 15 years' experience in factory, commercial and Federal buildings, excellent references, modest salary. J. T. J., 26 Marquette St., Detroit, Mich.

Miscellaneous

ARCHITECT and construction engineer, formerly in charge of the architectural department for a large tire and rubber company, desires similar position with a manufacturing concern. Can give the best of references. Address, Architect, 146 North Forge Street, Akron, Ohio.

CONTRACTOR'S engineer and estimator, age 38; twenty years' experience, good judgment, full knowledge of costs, construction, design, purchasing and methods of building business; handled millions of dollars worth of building contracts from original estimates to final acceptance; tireless, energetic, reliable, desires only a good connection with a reliable firm; salary and bonus system preferred; available Jan. H. G. L., 2408 West Elkhart Street, Philadelphia.

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0150

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531 Rialto Bldg., San Francisco.

Important

Original letters of recommendation or other papers of value should not be enclosed to unknown correspondents — send copies.

0195

POSITIONS WANTED

CONTRACTOR'S engineer. Thorough knowledge of all branches of the contracting business. A high grade estimator with many years' experience on buildings, bridges, sewers, earthwork in both design and construction. Age 38, initiative and foresight. PW-556, Eng. News-Record, Real Estate Trust Bldg., Phila.

ENGINEER, junior, fourth year engineering student, three years general drafting experience, seeks position in any capacity with building contractor. PW-663, Eng. News-Record.

FORMER Captain and Constructing Quartermaster, U. S. Army, three and one-half years, honorably discharged last October, desires position; executive ability and experienced in construction work. PW-729, Eng. News-Record, Real Estate Trust Bldg., Philadelphia.

NOW holding important executive position in large shipbuilding company, and seeks a change; graduate civil engineer; 10 years' experience structural steel work before entering college; 15 years' experience handling men; have necessary experience and ability to manage a shipyard or structural steel plant or be a sales representative. PW-671, Eng. News-Record.

OFFICE and field engineer, seven years' frog and switch details, layouts and estimates on trolley and steam work; three years assistant superintendent reinforced concrete building construction; technical education, fine draftsman; would accept temporary position office or field. PW-739, Eng. News-Record.

SALES engineer, university graduate, age 30, eight years' experience, general engineering work including tunnel, sewerage and road work, and also two and one-half years' of sales work with a reputable concerns. Employed at present; available by Jan. 1st. Service in foreign countries preferred. PW-721, Eng. News-Record.

TRANSITMAN desires position, experienced in railroad and highway construction mines and topographical surveys. PW-732, Eng. News-Record, Real Estate Trust Bldg., Phila.

TWO first-class bricklayers desire job in South; 20 years' experience at fire and all kinds of brickwork. State terms; union men. William Stoll, 288 Cornelia St., Brooklyn, N. Y.

EVENING WORK WANTED

EVENING work wanted by experienced draftsmen, either drafting or tracing neatly finished; property maps, etc. EWW-488, Eng. News-Record, Leader-News Bldg., Cleveland.

EXTRA WORK

REINFORCED-CONCRETE bar lists, bent and straight, with placing plans from architects' and engineers' drawings or designs for contractors executed promptly. XW-372, Eng. News-Record.

STRUCTURAL steel and reinforced concrete designing and detailing; work promptly executed; steel detailing also done on the pound basis. PW-747, Eng. News-Record, Old Colony Bldg., Chicago.

TWO structural engineers in New York desire extra work detailing and checking structural steel work. XW-371, Eng. News-Record.

WORK WANTED

Industrial Plants Engineer

Industrial plants engineered, complete design and specifications for entire plants, structures or equipment. Boiler and power plants, transmission machinery. Design of special equipment for chemical plants, oil refineries and allied industries a specialty. Backing 15 years' broad and varied experience in this line. Box 77, Station "O," New York.

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Steel detailing and checking done by professional structural draftsmen and checkers, get our prices and terms, they will please you. Bambach & Doerr, 28 E. Jackson Blvd., Chicago.

Steam Shovels

Work wanted for three steam shovels and fifty teams. Address P. O. Box 342, Ashland, Ohio.

AGENTS AND SALESMEN

Eastern Representative Available

Salesman, aggressive, experienced salesman desirous of connecting as Eastern representative for manufacturer of construction equipment. AS-736, Eng. News-Record.

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Sales engineer with an established office in New York City and extensive acquaintance in the metropolitan district among contractors and architects, with whom he is keeping in constant touch, desires to represent manufacturer interested in reaching this trade personally. AS-725, Eng. News Record.

Sales Engineer

Office in Baltimore, will undertake representation of mechanical, electrical or structural equipment requiring experienced engineering service in connection with sales. AS-743, Eng. News-Record, Real Estate Bldg., Philadelphia.

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Partner Wanted

Active partner to buy interest in an established concrete road building company doing a nice business on Long Island, N. Y., as our books will show. Engineer preferred. Do not answer unless you have the money and mean business. BO-715, Eng. News-Record.

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By a New Jersey manufacturing concern, manufacturing electrical machinery and who are anxious to take on an additional line, some patented article of merit. Will buy outright or manufacture on a royalty basis. BO-672, Eng. News-Record.

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Boilers

6 Hor. Ret. Tubular Boilers, 150 HP., 100 lb. pressure, 72" x 18'; also 4 Heine boilers, 385 HP. N. Y. Sanitary Utilization Co., 149 Remsen St., Brooklyn, N. Y.

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For Rent From Plans, Occupancy May 1st

Three top floors, two at 2,500 sq.ft., one at 1,000 sq.ft. (together or separate), of a thoroughly modern seventeen story office building now being erected at the corner of Frankfort and Gold Streets, one minute walk from Manhattan Terminal of the Brooklyn Bridge. Splendid offices for architects orengineers. Light on all sides. By renting now, interior arrangements can be made to suit. George E. Relyea, Agent, 136 Front St., N. Y.

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RENT FOR ONE MONTH TO FIVE YEARS
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Trucking and Repairing Service. Everything guaranteed. Apply
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KEYSTONE EXCAVATOR
MODEL 4
New Machine equipped for Grading or Ditching. Competent crew.
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STEAM SHOVELS
FOR RENT
Two standard, late models, ¾ yard traction steam shovels, in fine condition.
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I INSPECT and SHIP

Used Equipment. I will Test, Inspect and Report on Valuation, also load ship and install. Contractors' Used Equipment, Steam Shovels, Locomotives, Cranes, etc. Before you buy get my services. Terms reasonable. 20 years' practical experience. Best of references.
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KEYSTONE EXCAVATOR
New machine equipped with Skinner scoop, Ditcher scoop, crane attachment. Mass. Standard boiler. Experienced crew.
HENRY R. SOMES
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Steam Shovels for rent with crews or work taken by contract.
Dinkeys and cars or teams furnished.
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Bunks—Upper and lower sleeping Bunks, made of Black Angle Iron, National Spring and helicals, size 2 ft. 6 in., $5.50.

Bunks—Upper and lower sleeping Bunks, made of continuous posts, white enamel, size 3 ft., $6.50.

Wall Tents, white, sizes 9½ x 12, 10 x 12, 12 x 14, 14 x 14, prices on application.

U. S. Government Khaki Wagon Covers. Size 12 x 12, No. 4 duck, new, waterproof; $20.00.

U. S. Government Khaki Wagon Covers, New. 10 oz. Size 11 ft. 6 in. x 14 ft. 6 in. Price $16.50.

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Aviator Leather Jerkins or Vests made up leather of outer covering, with an O.D. wool lining as used by the aviators in the U. S. Army, all sizes, $5.75.

U. S. Navy all wool Blankets (white), $6.

U. S. Rubber Hip Boots, new. Sizes from 7 to 15; $4.65.

Commercial Wool Army Blankets. Made from overcoatings, in gray and mixtures; $4.45.

Commercial Wool Blankets in gray, blue and tan, with stripes, at $2.95.

Cotton Blankets, Double (reclaimed), $1.65.

Contractors' single size Double cotton Blankets, rough, $1.50.

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Mattress bed sacks, as used by contractors, $0.85.

White cotton felt mattresses, size 3 ft. A. C. A., tick $4.95.

Silk floss mattresses, size 2 ft. 6, A. C. A., tick $5.00.

Cotton Top and Bottom Mattresses, size 3 ft. (used), $2.50; in good condition.

W. W. REID, INC., 97 Branford Place, Newark, N. J.
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Marine Equipment and Supplies

Having purchased the entire plant and property, known as the Maryland Shipyard & Supply Base, located at Soller's Point, Baltimore, Maryland, we are offering F.O.B. Plant, for *immediate shipment* all or any part of the following:

Main Engines	**Tanks**	**Wire Rope, all sizes**
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Accessories, such as Compressors, Air Tools, Woodworking Machinery, etc.

Stock is Complete and New

Inspection of material cheerfully accorded to all prospective buyers

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***Main Office*—Sollers, Md.**
P. O. Address, Box 990, Baltimore, Md.
Telephones Barclay 5190-5191

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Your inquiries for anything you may need in Equipment or Machinery
Special Bargains for Prompt Shipment
THE T. J. LANE EQUIPMENT CO.
Springfield, Ohio

FOR SALE OR RENT
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FLOATING STEAM DIGGER AND DERRICK
with Clamshell or Orange Peel bucket attached.
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0230

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Legless. Height 32 in. Single Column

53 Radiators—30 Sections, 75 sq.ft. each.
166 Radiators—31 Sections, 77.5 sq.ft. each.
4 Radiators—17 Sections, 42.5 sq.ft. each.
Made by American Radiator Co.

Also a varied lot of used radiation in good condition.

Offered subject to prior sale. Inspection invited

BY-PRODUCTS DIVISION, SECTION A
THE GOODYEAR TIRE & RUBBER CO.
AKRON, OHIO

FOR SALE

One No. 5 Austin

Locomotive Crane

Gasoline power, caterpillar wheels, 40 ft. boom, lifting hook, equipped for drag line or clam shell work. Unusually good condition.

Massachusetts Oil Refining Co.
East Braintree 84, Mass.

Locomotive Crane

1—No. 8 Browning Locomotive Crane, eight wheel, M.C.B., 50-ft. boom, all steel house, 54-in. Butt strapped boiler, bucket handling, immediate delivery.

MIDWESTERN COMPANY
140 So. Dearborn St., Chicago

Four Porter Locomotives
36 IN. GAUGE

Four wheel saddle tank, 9-in. x 14-in. cylinders, weight 12 ton, wheel diameter 28-in., wheel base 5-ft. 3-in., boiler diameter 32-in., steam pressure 130 lb., hand brakes, new cabs, tires turned, new bumpers, fine order.

READY FOR IMMEDIATE SHIPMENT FROM TOWNLEY, N. J.

We also have on hand other Locomotives, Cranes, Cars, Crushers, Boilers, Pumps, Engines, Hoists and many other items of interest.

Reading Engineering Company, Inc., Tribune Bldg., New York City

"Searchlight"
is
Quick Action
Advertising

0233

MACHINERY **WANTED** MISCELLANEOUS

WANTED HOISTING ENGINES

All sizes up to 10 x 12 Double Cylinder, Single, Double or Triple Drum with or without boilers. Advise in detail stating best cash price, etc.

BECKWITH MACHINERY CO.
Arch St. and Parkway, N.S., Pittsburgh, Pa.

CARS WANTED

2—60,000 lbs. capacity Side Door Pump Ballast or Gravel Cars. Give Specifications and price desired.

NIAGARA ALKALI CO.
Niagara Falls, N. Y.

WANTED TO BUY

Hoisting Engines
Concrete Mixers
Cranes—Draglines
or any
Construction Equipment

EQUIPMENT CORP. OF AMERICA
Lumber Exchange Bldg., Chicago, Illinois

Will purchase at a bargain.
From one to four gasoline
LOCOMOTIVES
either three or six ton, also three miles industrial rail—State lowest price, condition and present location.

P. O. Box 168, Kinston, N. C.

Wanted—Dragline Machine

Class "14" Bucyrus or Monighan preferred, 2½ yard bucket, 60 ft. boom. Send full particulars, general condition, price, etc.

CHICAGO FOUNDATION COMPANY
76 W. Monroe St., Chicago, Ill.

"Opportunity" Advertising:
Think *"SEARCHLIGHT"* First!

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DREDGE WANTED

Dipper Dredge, ½ yd. to 1 yd. Steel Hull, Crude Oil or Distillate Engine.

WILL S. GUEDRY
Lake Charles, La.

SPECIAL

FOR LEASE

OR SALE

We own outright and offer for prompt deliveries the following Equipment, for Lease or Sale—Subject to Prior Disposition

1—30-ton **Industrial Works Locomotive Crane**, 50-ft. and 90-ft. Sectional Radius Boom, 8-Wheel Railroad Trucks, etc. This is a strictly modern practically **new** Locomotive Crane, little used in actual service.

1—20-25-ton **Browning Locomotive Crane,** 50-ft. Radius Boom, 8-Wheel Railroad Trucks, etc. This is a splendid, modern Locomotive Crane.

2—20-ton **New Brownhoist Locomotive Cranes,** 50-ft. Radius Booms, 8-Wheel Railroad Trucks, etc. These Locomotive Cranes are **new** machines. Delivery about January First.

1—20-ton **McMyler Interstate Locomotive Crane,** 50-ft. Radius Boom, 8-Wheel Railroad Trucks, etc. This Locomotive Crane is a **strictly modern machine** little used in actual service, coming right out of our Chicago shops. **Just like new. Prompt shipment** about December Twenty-fifth.

1—15-20-ton **Brownhoist Locomotive Crane,** 50-ft. Radius Boom, 8-Wheel Railroad Trucks, etc. This Locomotive Crane **very fine machine. Prompt delivery** about December Twenty-eighth, right out of our shops.

1—15-ton **Brownhoist Locomotive Crane,** 50-ft. Radius Boom, 4-Wheel Trucks, etc. **Strictly modern crane,** very little used. **Quick shipment** about January First.

1—10-ton **McMyler Interstate Locomotive Crane,** 35-ft. Radius Boom, 4-Wheel Trucks, etc. **Very Fine Crane. Prompt shipment** about January Fifth, right out of our shops.

Several **Clam Shell Buckets,** various sizes from ½ to 1½ yard capacity. **Blaw Knox, Brownhoist, Owens, Browning, Hayward** and **McMyler** manfacture. Some of these Clam Shell Buckets have been used in actual service less than thirty days. These Clam Shell Buckets are just like **new.**

1—**American Hoist and Derrick Company Hoisting Engine with Boiler,** 8¼ x 10, Double Cylinder, Double Drum, etc. **Absolutely just like new. Immediate shipment.**

1—**All steel Stiff Leg Derrick,** 40-ft. Boom, etc. **Just like new. Practically immediate shipment.**

2—No. 0 **Thew Traction Steam Shovels,** ¾-cu. yd. Dippers. Little used, right out of our shops. **Prompt shipments.**

1—17 x 24—45-50-ton, 6-Wheel Connected, Standard Guage **Baldwin Switching Locomotive** with Separate Tender, coming right out of our shops. Strictly A-1 condition, just like new.

1—16 x 24—40-ton, Standard Gauge 4-Driver (Rhode Island) **American Locomotive Company Switching Locomotive,** with separate Tender. **Immediate** shipment, right out of our shops.

Several 36-in. Gauge, also 24-in. Gauge Saddle Tank Locomotives for **Prompt Shipment.**

2—Standard Gauge **Combination Passenger and Baggage Coaches. Prompt shipments,** right out of our Chicago shops. **All quotations subject PRIOR SALES. Please act quickly.**

All quotations subject PRIOR SALES. Please act quickly.

ALSO CONSIDERABLE OTHER EQUIPMENT OWNED BY US

STEAM SHOVELS, any Size or Capacity **LOCOMOTIVES, any Gauge, Size or Type**

RAILROAD AND CONSTRUCTION CARS, ALL TYPES

Flat, Box, Gondola, Ore, Dump Cars, Interurban Cars, Passenger Coaches, etc.

LOCOMOTIVE CRANES FOR ALL PURPOSES

What are your Requirements? **Please Telegraph, Telephone or Write us**

A. C. TORBERT

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Shops and storage yards at Chicago ***We buy—we rebuild—we sell—we lease***

We SPECIALIZE in LEASING Equipment

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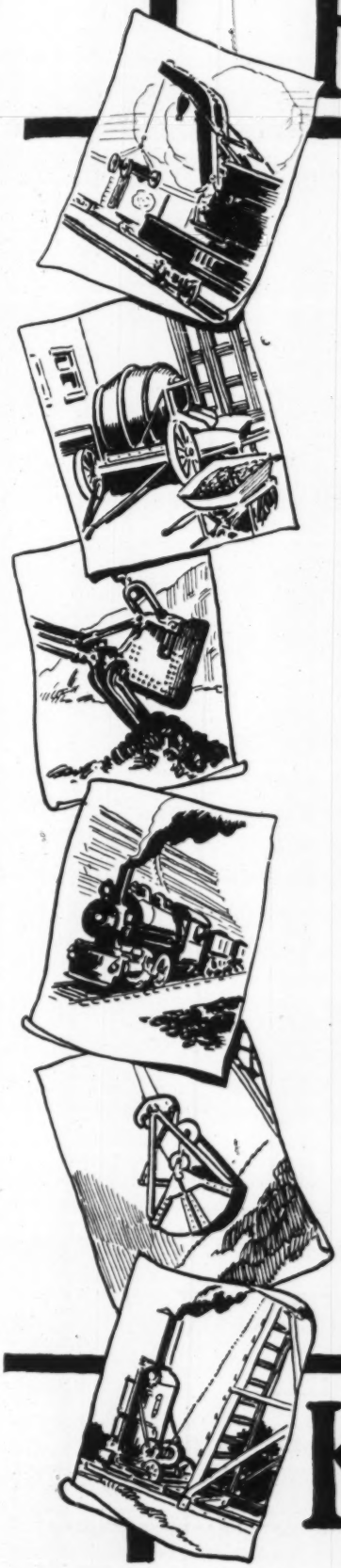


REPAIRED EQUIPMENT

BUCKETS

12—1-yd. to 36-ft. Steubner controllable, center dump.

8—30-ft. Insley controllable.

5—27½-ft. Lakewood Eclipse.

1—¾-yd. Williams Clam Shell.

1—1-yd. Hayward Dragline.

STEAM SHOVELS

2—Marion 60 shovels, Shop Nos. 1999 and 2059.

1—70-C Bucyrus, Shop No. 1219.

1—Model 60 Marion, Shop No. 2130.

1—Model 1 Thew on railroad trucks, ⅞-yd.

LOCOMOTIVES

2—12-ton, 9 x 14-in. Porter dinkeys, 36-in. gauge.

1—17 x 24-in., 55-ton, 4-6-0, standard gauge.

8—18-ton, 10 x 16-in. Porter dinkeys. 36-in. gauge.

3—25-ton Forney type.

BOILER

1—125-hp. Ames L.T. butt strapped, locomotive.

CAR

1—Standard gauge Spreader Car.

PUMPS

1—10-in., 3-stage Centrifugal, direct connected to Moore steam turbine, 500 gallons of 375-ft. head.

1—14 x 7 12 Underwriter's Pump (Knowles).

1—10-in. Sand Pump, connected to 9½ x 9½ double cylinder engine.

1—12 x 17 x 10 x 15 Worthington Steam Pump, for 140-lb. water pressure.

We have a large stock of contractor's pumps both steam and gasoline operated.

MISCELLANEOUS

2—Vulcan drop Hammers.
Boiler, portable locomotive type, 100-hp., butt strapped.

1—10-ton, 3-wheel Kelley-Springfield Roller.

1—1 Bag Koehring Paver, new gasoline engine on traction wheels with 8-ft. chute.

1—13-E Foote Paver, with 9-hp. gasoline engine mounted on traction wheels, with 18-ft. distributing chute.

1—No. 11 Cube Mixer, mounted on traction wheels, with steam engine, and boiler, equipped with boom and bucket, also gravity chute.

350 tons 56-60-lb. Relaying Rail.

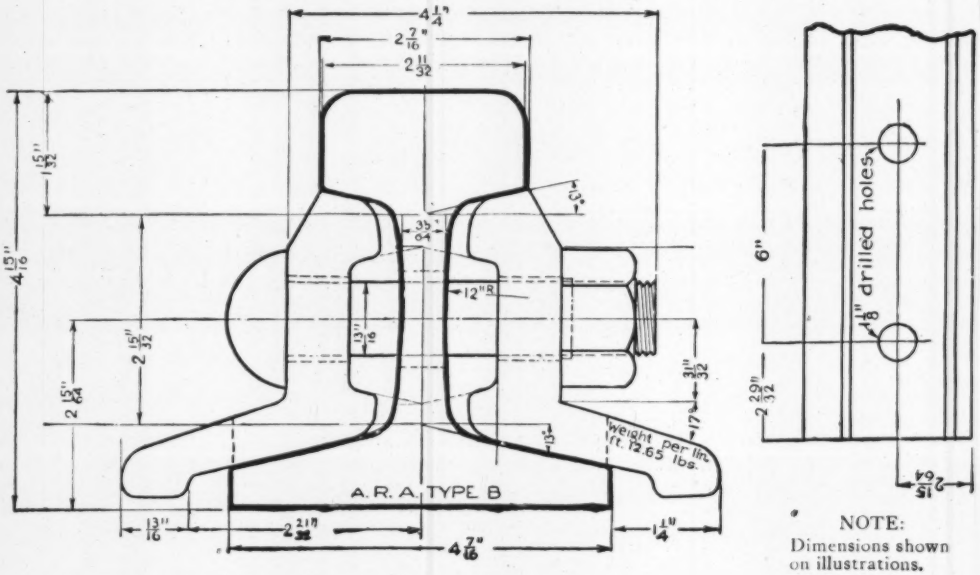
Offer Us Your Used Equipment—We are always in the market for heavy construction equipment and buy for cash. We have large repair shops in Pittsburgh, where all equipment is thoroughly repaired before being reshipped. Send for Our Complete Lists.

H. KLEINHANS CO., Union Arcade, Pittsburgh, Pa.

Eastern Office: 30 Church St., New York

KLEINHANS

NEW 80-LB. RAIL
AND ACCESSORIES



NOTE:
Dimensions shown on illustrations.

We own and offer for prompt shipment 80 lb. A. R. A. Type "B" Rail approximately 35,000 gross tons—drilled—standard lengths.

Accessories for 80 lb. Rail

Angle Bars, Track Bolts and Nuts—Size $\frac{7}{8}$ in. x $4\frac{1}{4}$-in. Track Spikes—Size 9/16-in. x $5\frac{1}{2}$-in.

This material is in storage at **Kearney, N. J.**

Quotations and further particulars on request.

HYMAN-MICHAELS COMPANY

(Refer to Department "A")

PEOPLE'S GAS BUILDING, CHICAGO, ILL.

BRANCHES:

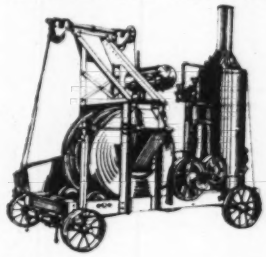
Woolworth Bldg., New York; 1st National Bank Bldg., Pittsburgh; Railway Exchange, St. Louis

SERVICE
BOUGHT ECA REBUILT RENTED
SOLD

"WE BUY— REBUILD— SELL— OR RENT—"

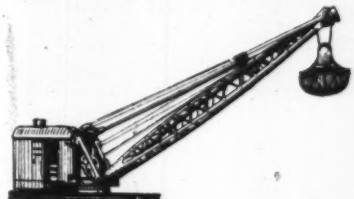
All the Equipment listed below is owned by us and may be inspected at one of our own warehouses.

CONCRETE MIXERS



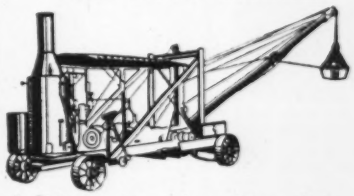
1—28-S Mixer, capacity one yard mixed material, with steam engine and boiler on skids, Marsh-Capron.
15—21-S Mixers, all capacity ¾ yard with steam engines and boilers or without power for electric motor, with side loaders or batch hoppers, following makes: Marsh Capron, Smith Chicago, Ransome and Lakewood.
50—14-SMixers, apality ½ yard mixed material with steam engine and boilers, side loader and water tank, following makes: Marsh Capron, Koehring, Milwaukee, Smith, Smith Chicago, Ransome, Chain Belt, Foote, Lakewood, Oshkosh, Cube, Ideal.
2—14-S Mixers with gasoline engine, side loader, water tank, one Marsh Capron and one Cube.
10—10-S capacity 1/3 yard mixed material with side loader and water tank, 4 with gas engine, 6 with steam engine and boiler, following makes: Marsh Capron, Milwaukee, Koehring, Chain Belt, Ransome and Austin Cube.
20—7-S one bag mixers with side loaders or low chargers, 16 with gas engines, 4 with steam engine and boiler.

LOCOMOTIVE CRANES



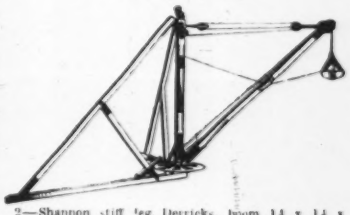
1—15 ton 8 wheel M.C.B., O. & S. Locomotive crane with 40 ft. steel boom, bucket handling.
1—12½ ton Browning standard gauge Locomotive Crane, bucket handling.
1—20-25 Ton, 8 Wheel, M.C.B. Industrial Locomotive Crane, with 70 ft. boom, bucket operating.

BYERS AUTO CRANES



6—Byers Auto Cranes, 3 mounted on self-propelled traction wheels; one on caterpillar; 3 with 30 ft. boom; 3 with 35 ft. boom, with or without buckets.

DERRICKS

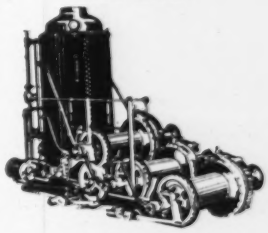


2—Shannon stiff leg Derricks, boom 14 x 14 x 75 ft., mast 12 x 12 x 38 ft., bucket handling.
3—Terry & Tench stiff leg Derricks, boom 14 x 14 x 60 ft., mast 12 x 12 x 32 ft. bucket handling.
2—Lambert stiff leg boom 12 x 12 x 50 ft., bucket handling.
1—Shannon Guy Derrick, 14 x 14 x 80 ft. mast, 14 x 14 x 75 ft. boom, bucket handling.
1—Lambert Traveling Derrick, with 50 ft. boom, bucket operating, track gauge 16 ft., with National 7¾ x 10 D.C. 3 drum hoist with boiler; complete outfit.
2—All steel stiff leg, mast 10 ft., boom 45 ft., capacity 10 tons.
1—Brand New American Stiff Leg Derrick, boom 12 x 12 x 50 ft., bucket operating.
1—All Steel Guy Derrick, mast 90 ft., boom 81 ft., with guys, bucket operating, capacity 10 tons.
1—Dobbie Guy Derrick—16 in. x 16 in. x 80 ft. mast, 16 in. x 16 in. x 72 ft. boom.

CLAM SHELL BUCKETS

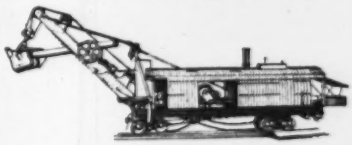
2—2 yard clam shell: 1 O. & S.; 1 Williams Hercules type—New.
3—1½ yard Buckets: 1 class E-Howard; 1 O. & S.; 1 Mead Morrison.
9—1 yard Buckets: 1 Hayward; 6 Standard; 2 Orton and Steinbrenner.
5—¾ yard Buckets: Standard, O. & S.
7—½ yard Buckets: 1 Standard; 1 Hayward; 2 Kiesler.
6—½ and ¾ yard Tower Buckets with Hoppers.
6—Tip-Over Buckets: 5—½ yard; 1—1 yard.

HOISTS



1—10 x 12 D.C. 3 Drum Lidgerwood with Boiler.
2—9 x 10 D.C., D.D. with Boilers, 1 Lambert and 1 Lidgerwood with 4 independent clutch winch heads.
1—9 x 12 D.C. 3 Drum National with boiler.
2—9 x 10 D.C. 3 Drum with boiler: 1 Mead Morrison, 1 Brand new Clyde.
1—8½ x 10 D.C. Single Drum Lambert Skeleton.
1—8½ x 10 D.C. 3 Drum Lambert Skeleton.
1—8¼ x 10 D.C. 3 Drum Moulghan with boiler.
3—8¼ x 10 D.C., D.D. Reversible Link Motion with boiler: one Lambert; two Lidgerwood.
3—7 x 10 D.C. 3 Drum Hoists with Boilers: 1 American; 1 Mundy; 1 National.
19—7 x 10 D.C., D.D. with boiler; 1 American; 4 Lambert; 8 Lidgerwood; 1 O. & S.; 1 National; 1 Flory; 1 Mundy; 2 Crooke.
1—7 x 10 D.C., D.D. Skeleton Hoists; 1 Lidgerwoods; 2 Mundys; 1 National.
6—6¼ x 10 D.C., D.D. with boiler; 3 Mundy; 1 Flory; 2 National.
2—6¼ x 10 D.C., D.D. Skeleton: Mundy.
2—5½ x 8 D.C., D.D. American with boiler.
2—4¾ x 6 D.C. American Single Drum Reversible Hoists with boiler, with sheave for double platform elevator.
1—4½ x 6 D.C., D.D. Clyde Reversible Hoist.
1—50 hp. Thomas D.D. Hoist with 50 hp. A.C., 220 Volt, 60 Cycle, 3 Phase Wound Slip Ring Type Motor.
1—10 hp. D.D. National Gasoline Hoist.
2—Holding Drums.

STEAM SHOVELS



2—Type A-1 Thew on traction wheels, one with long dipper stick for sewer work, one with ⅞ yard bucket for excavating or stripping.
3—Type O Thew Steam Shovels, on Traction Wheels, with ⅝ yard dipper.
1—Bucyrus 70 ton, on M.C.B. Standard Gauge Trucks, with 2½ yard dipper.

We have a large stock of miscellaneous equipment and also heavy equipment not listed in this AD. Write or wire your requirements.

Equipment Corporation of America

Philadelphia
655 Land Title Bldg.
Phone, Spruce 5498

CHICAGO, ILL.
1455 Lumber Exchange Bldg
Phone, Randolph 6586

Pittsburgh
855 Empire Bldg.
Phone, Court 2424

IT MAY BE HERE—

If so, write, wire or phone—at once
If not, tell us your requirements as this is only a partial list

CABLEWAY DRAGLINE

—9 x 12 Lidgerwood Cableway Dragline. Complete with 70 ft. Tower, 1½ yd. Dragline Bucket and A.S.M.E. Butt Strapped Boiler. Outfit is like new.

STEAM SHOVELS

1—Type B Erie ¾ yd. New 1919.
1—Model 28 Marion, ⅞ yd. dipper, traction wheels.
1—40 B. Bucyrus, 1½ yd. dipper, railroad trucks.
1—Model 60 Marion, 2 yd. dipper, railroad trucks.
1—Model 61 Marion, 2½ yd. dipper, railroad trucks.
2—70 C Bucyrus, 2½ yd. Dipper, railroad trucks. Excellent condition.

STONE CRUSHER

1—No. 4 Champion Portable Stone Crushing Plant, complete with Elevator, Screen and Bin. Mounted on wheels.

LOCOMOTIVES

1— 6 x 10 Vulcan, 36 in. gauge.
2— 9 x 14 Porter, 36 in. gauge.
2—10 x 16 Porter, 36 in. gauge.
3—10 x 16 Vulcan, 36 in. gauge.
1—11 x 16 Baldwin, 36 in. gauge.

SHEET PILING

100 tons Lackawanna, arch web ⅜ in. steel sheet piling. Lengths 10 ft. to 40 ft.

DREDGES

1—20 in. Suction Dredge.
2—16 in. Suction Dredges.
2—4 to 5 yd. Dipper Dredges.
1—3 yd. Dipper Dredge.

DERRICK BOATS

1—68 x 27 x 7 Hull, 10 x 12 Three Drum Lidgerwood hoisting engine with 7 x 9 Independent swinging engine, clam shell operating. Has "A" frame and 60 ft. boom.
1—114 ft. x 32 ft. 6 in. x 12 ft. "A" frame Derrick Boat. 66 ft. boom. 10 x 12 D.D. Lidgerwood Engine. Splendid condition.

DECK SCOWS

1—80 x 22 x 8, new.
2—80 x 25 x 8, excellent shape.
1—67 x 22 x 5½, fair shape.

DUMP SCOWS

3—650 cu. yd. Scows.
6—235 cu. yd. Scows.

BUCKETS

2—1 yd. Clam Shell.
1—1½ yd. Williams Clam Shell.
3—¾ to 1½ yd. Orange Peel.

WELL DRILLS

2—Sanderson-Cyclone Number 14 Traction 5⅝ in. hole, 500 ft. deep.

HOISTING ENGINES

1—5½ x 8 D.C., D.D. Skeleton.
1—7 x 10 D.C., D.D. Skeleton.
1—9 x 10 three drum, Skeleton.

TRAVELING DERRICK

1—Traveling Stiff Leg Derrick; 18-ft. gauge. Complete with 3-drum, 8¼ x 10 Flory Engine and Dake Swinging Engine; 26-ft. mast, 50-ft. boom, all wooden; steam operated; 1-yd. Haiss Clam-shell bucket. Excellent condition.

DERRICKS

1—Stiff leg derrick, 45 ft. mast, 70 ft. boom.
2—Guy derricks, 70-ft. mast, 70-ft. boom.
1—Guy derrick, 70 ft. mast, 60 ft. boom.

BOILER

1—32 hp. upright boiler, butt strapped. Massachusetts standard.

LOCOMOTIVE CRANE

1—30 ton McMyler, 8 wheel, standard gauge MCB, bucket operating, 70 ft boom. Rebuilt.

CARS

50—4 yd. Western two way dump, 36 in. gauge.

'Phone Locust, 4816 *Write 'Phone—Wire*

1324 Widener Bldg. B. M. WEISS, Philadelphia, Penna.

FOR SALE

MACHINERY *and* EQUIPMENT

LOCOMOTIVE CRANES

1—15-20 ton Brownhoist 8-wheel M. C. B. 40 ft. boom, bucket operating drums.
1—15-ton American 8-wheel. M. C. B. Single Line. 30-ft. beam.
1—15 ton Q & S 8 wheel. M. C. B., 70 ft. boom with 25 ft. removable section. Double power driven drums, also dragline attachments, equipped with outriggers.
New Locomotive Cranes on traction wheels. 30 ft. boom. ¾ yard bucket.

BYERS AUTO CRANES

1—Late type on Traction Wheels. 30-ft. Boom. ¾-yd. Bucket. Machine like new, in condition.
1—Type 3 on caterpillar traction. 30 ft. boom, ¾ yard bucket. A1 condition.

REVOLVING TRACTION SHOVELS

1—Marion, Model 31, 1-yd. dipper, shop No. 3068.
1—Marion Model 28, ⅝ yd. dipper, shop No. 3328.

LOCOMOTIVES

American 6 wheel switcher. Cylinders 18 x 24 in. Drivers, wheel base, 11-ft. 6-in. Weight on drivers, 120,000 lb. Carries 150 lb. steam. Excellent condition. Just out of shop.

BOILERS

1—30 hp. locomotive type portable boiler and engine mounted on iron wheels with engine mounted on top of boiler.
1—50 hp. fire box, locomotive type, 100 lb. pressure.
1—70 hp. fire box, locomotive type, 100 lb. pressure.

PUMP

1—Swaby, direct connected to steam engine. 6-in. suction, 5-in. discharge.

CONCRETE MIXERS

2—Smith ½-yd. machines, no power, have large stationary batch hopper.
2—Smith No. 1 gasoline driven, on trucks.
2—Smith No. 11 steam driven, on trucks with side loaders.
1—Cube No. 11 steam driven, on trucks with side loader.
6—Cube No. 17 steam driven, on trucks with side loaders.

CARS

4—¾-yd. capacity, V-shaped, all steel, two-way dump, 18-in. gauge.
1—1-yd., V-shaped, all steel, two-way dump, 24 in. gauge.

DRAGLINES

3—Bucyrus Class 7 Draglines mounted on skids and rollers, 42-ft. booms, 1-yd. Page buckets. Can go into Canada duty free as they have been used there once before.

AIR COMPRESSORS

1—Gardner duplex steam driven, size 10 x 10 x 12, capacity 326 cu.ft. free air per minute at 100 lb. pressure.
1—Norwalk two stage, steam driven air cylinder 17½-in., steam cylinder 24-in., stroke 30-in., 1659 ft. of air at 100-lb.

ROAD ROLLERS

1—Good Roads Machine Co. 10-ton tandem Steam Roller.
1—Monarch, Steam, 3-wheel, 10-ton.

HOISTING ENGINES

2—Byers, 16 hp. double cylinders, double drum, equipped with boilers, swinging gears.

MINE AND CABLEWAY HOISTS

1—Flory Skeleton, 8¼ x 10 D. C., D. D. link motion, with quadrant.
Lambert, 10½ x 12, double cylinder, single drum, 36-in. diameter, 24-in. face. Drum grooved; will take up ⅞-in. cable. Drum flanges 8 in. deep. Link motion.
Flory 10 x 12, double cylinder, double tandem drum engine, drums 40-in. diameter, 40-in. face. Operating levers banked in quadrant.

BUCKETS

1—1-yd. Page Dragline Bucket.
1—1¼-yd. clamshell bucket.
1—¾-yd. Orange Peel, 3 blades, for rock work.
1—1-yd. Clamshell Bucket.

STEAM PILE HAMMER

1—Cram Steam Hammer equipped for round piles, total weight about 8000 lb. Weight of Ram 5500-lb.

PIPE

1900 feet 6-in.
3200 feet 4 in.
3100 feet 2 in.
1700 feet 1½ in.

F. MAYER, 737-738 Monadnock Bldg., Chicago, Ill.

"Happy New Year"

CONTRACTORS' EQUIPMENT

HOISTS

1—6¼ x 8 O. & S. S.D., D.C. skeleton.
1—7 x 10 Lidgerwood S.D., D.C. skeleton.
1—6¼ x 10 Mundy D.D., D.C. boiler base.
3—8¼ x 10 Lidgerwood S.D., D.C. skeleton.
1—8¼ x 10 Mead Morrison D.D., D.C. skeleton.
1—10 x 12 American D.D., D.C. skeleton.
1—10 x 12 Rawson Morrison, 3 drum D.C. skeleton.
1—6¼ x 10 Mundy S.D., D.C. with boiler.
1—5½ x 10 Mundy D.D., D.C. with boiler.
1—7 x 10 Stroudsburg, D.D., D.C. with boiler.
1—7 x 10 Lambert D.D., D.C. with boiler and swinger.
1—8½ x 10 Lambert D.D., D.C. with boiler, reversible.
1—8¼ x 10 Lidgerwood D.D., D.C. with boiler, cableway.
1—25 hp. Lidgerwood electric, D.D., with swinger 220-volt D.C.
1—50 hp. American D.D., Westinghouse motor, 3 phase, 60 cycle, 220 volt.

CARS AND TRACK

6—½ yd. Radial dump mine cars, 24- in. gauge.
20—1 yd. and 1½ yd. Koppel cars, 24-in. gauge.
3,000 ft. 24-in. portable track 20 lb. rail new.
2000 ft. 24-in. portable track, 12-lb. rail.
10—Koppel flat cars, 36 in. gauge, new.

STEAM SHOVELS

1—Type "O" Thew ¾ yd. dipper, Massachusetts boiler.
1—Model 28, Marion.
1—18B Bucyrus ⅞ yd. Massachusetts boiler.
1—14 B Bucyrus ¾-yd. dipper.

BOILERS

1—20 hp. Vertical, lap seam, double riveted, 100 lb.
1—40 hp. Vertical, lap seam, double riveted, 100 lb.
1—50 hp. Vertical, lap seam, double riveted, 100 lb.
1—80 hp. Ames vertical, Mass. Std., 110 lb.
1—15 hp. Porter Loco. Type, on wheels, lap seam.
1—40 hp. Ames Loco. Type, on wheels, lap seam, single riveted, 80 lb.
1—100 hp. Erie Loco. Type, butt strap joints, triple riveted, 100 lb.
2—150 hp. H.R.T. Boiler, butt strap, triple riveted, 100 lb.

LOCOMOTIVES

1—3-ton Bell Locomotive, 24-in. gauge.
3—18-ton Vulcan Saddle Tank, 36-in. gauge.
1—6-ton Bell, oil burning, standard gauge.
2—6-ton Plymouth, 24-in. gauge.
1—5-ton Milwaukee, 24-in. gauge, rebuilt.
1—3 ton Plymouth 24-in. gauge.

MIXERS

1—27-S Chain Belt, 220 Volt D.C. Motor.
1—14-S Koehring, 220 volt D.C. Motor.
1—14-S Smith, steam engine, on truck.
1—27-S Smith, steam engine, power dumping.
1—7-S Knickerbocker, low charge, gasoline.
1—14-S Ransome, low charge, gasoline.
1—7-S International, low charge, gasoline.
1—5-S Polygon, power loader, gasoline.
1—14-S Ransome, low charge, without power.

STREET PAVERS

2—Koehring, cap. 22 cu.ft., dry, boom and bucket.
1—Koehring, cap. 14 cu.ft., dry, boom and bucket.
1—21E Koehring, caterpillar traction, power derrick and batch meter. Never used.
3—14-E Rex, boom and bucket, batch meter, one year old.
1—14-E Austin, caterpillar traction, batch meter.
1—10-E Austin, boom and bucket discharge.

ROAD ROLLERS

1—10-ton Buffalo-Pitts 3 wheel.
1—10-ton Universal Tandem.
2—8-ton Buffalo-Pitts Tandem.
3—6-ton Buffalo-Pitts Tandem.
1—3½-ton Universal Tandem.

PUMPS

4—Worthington Duplex, 6 x 4 x 6, brass fitted.
1—Worthington Duplex, 14 x 12 x 10, 6-in. suction, 6-in. discharge.
1—Worthington Duplex, 18½ x 12 x 10, 10-in. suction, 8-in. discharge.
Cameron Steam Pumps, all sizes.
2—No. 6 Pulsometers, 4-in. suction, 3½-in. discharge.
2—Allis Chalmers Centrifugal, 2 stage, 6-in. suction, 3-in. discharge for motor drive.
1—Lawrence Centrifugal, 8-in. suction, 6-in. discharge, direct connected to 6-in. x 6-in. steam engine.
1—Morris Centrifugal, dredging, 12-in. suction, 12-in. discharge, direct connected to Twin Vert. Steam Engines.
Large number gasoline driven force pumps, and diaphragm pumps, both new and rebuilt.

Boston Office
Old South Building
Main 4233

The HUBBARD-FLOYD CO., Inc.

MAIN OFFICE
Grand Central Palace
New York, N. Y.
Vanderbilt 1465

Machinery For Sale

1—Byers **Auto-Crane,** one year old. $4000.

1—Larrabee, 2½ ton **Dump Truck,** wood hydraulic Hoist, 2-yard body, 6 months old, for $3500.

H. W. FITZ GERALD
611 Press Bldg., Binghamton, N. Y.

EXCAVATOR

No. 3 Keystone. Used about two months. All tools and extra parts. One extra bottom for skimmer scoop. Also ditching scoop, never used.

DAVID SCHOENTAG
Saugerties, N. Y.

FOR SALE

1—¾ yd. Smith **electric mixer** with batch hopper, 15 hp. direct current motor, on skids, new 1919, in excellent condition.

1—Link-Belt **wagon loader,** type DS., fitted either with gasoline or electric motor, or without power.

Several 10 cubic foot *Mixers, gasoline, engines,* with or without power loaders. Both new and used.

All the above is for sale or rent at bargain prices. Let us quote you.

PARSONS ENGINEERING & MACHINERY CORP.
Construction and Industrial Equipment
18 West 34th Street, New York
Telephone: Pennsylvania 1662

FOR SALE

1—Ransome Mixer on Skids with Batch Hopper, Steam Engine only, capacity of mixed concrete 10 cu. ft. This machine is practically new.

1—5A used Foote Road Wheel Traction Paver.

3—6A used Foote Road Wheel Traction Pavers, all with Spouts and all in good working condition.

Will make special price for entire lot to machinery houses. These machines are all for immediate delivery and at bargain prices.

C. C. DAWSON
613 Republic Bldg., Kansas City, Mo.

Williams' Patent Crusher Number 10

Priced at one-quarter of its present-day value.

USED ONLY ONE WEEK

Hammer breaker.
Capacity 300 tons per eight hours.

Wire for price and photostat

Du Pont Chemical Co.
Wilmington, Delaware

FOR SALE

2—**8-Centrifugal Pumps.** 8 in. Special Type DSMB American Well Works Co's double suction, horizontal, split, volute, single stage, with casing webbed to withstand 250 lb. pressure, pumps fitted with bronze impellers of the enclosed type, with labyrinth wearing rings, bronze shaft sleeves and glands — Pumps are mounted on heavy cast iron bases and are arranged for direct connection for motor drive to

2—75 H.P. **Lincoln Motors,** 1800 R.P.M. — 2 phase, 60 cycle, 220 volts, squirrel cage, induction type.

2—**Starting Compensators** with under voltage release for 75 H.P. motors.

2—I T E **Circuit Breakers,** type W, 4 pole, 2 phase, 220 volt, 60 cycle, 200 ampere rated capacity, with range of adjustment 200 to 400 amp. 2 coil — Additional features are — No voltage release, non-closeable on overload, and inverse time element.

2—**Sluice Gates**—20 in. x 24 in. bronze mounted, with operating stand.

2—G. E. **Transformers** — 200 Kw., type H, 60 cycle, 2200 Volts, primary, 110 to 220 Volts secondary — multiple.

All Brand New.

THE BARRETT COMPANY
Chemical Department
Frankford, Philadelphia, Pa.

LOCOMOTIVES

7 x 10 cyl. 36-in. gage Vulcan Saddle Tank.
7 x 12 cyl. 36 in. gage Davenport Saddle Tank.

CARS

15—Western 4 yd. 36 in. gage dump.
6—41 ft. 100,000 lb. capacity gondolas.

STEAM SHOVELS

2—⅝ yd. Thew "O" Traction.

ZELNICKER IN ST. LOUIS

Get our big Bulletin 285.

FOR SALE OR RENT

1—Type J35 Ton McMyler Interstate Crane 50 ft. Boom.
1—Type B20 Ton McMyler Interstate Crane, new in 1919, Located in Kansas City, Mo.
9—12 yd. Standard Gauge Western Dump Cars.
1—Std. Ga. Western Spreader Car.
1—10 Ton Kelley-Springfield Road Roller.
3—3 Ton 24 in. Ga. Plymouth Gasoline Locomotives, practically new.
1—New No. 44 1 yd. Koehring Mixer, Batch Hopper and Boiler.
1—Type "B" Erie Shovel ¾ yd. Bucket.
1—Type A-1 Thew Shovel ⅞ yd. Dipper.
1—Type A-1 Thew Shovel—28 ft. dipper stick—Lattice boom equipped for clam shell work.
1—Parsons Trench Excavator Model "E"
1—New 9 x 10—3 drum Clyde Hoist with 125 lbs. pressure A.S.M.E. Boiler.
1—Model 28-S Lakewood Milwaukee steam mixer, 40 cu.ft. cap. Batch Hopper and water tank, without boiler.
2—No. 2 Vulcan Steam Hammers.
Quantity 24 in. I-Beams 60-70 ft. long.
150 Tons Lackawanna Steel sheet piling 14-28 ft. long.
Large quantity 1½ yd. Lakewood and Koppel "V" shape dump cars and 24 in. gauge track.

MAJORITY OF ABOVE EQUIPMENT PURCHASED NEW DURING 1919 and 1920.

THE CLEVELAND EQUIPMENT & REPAIR CO.
8701 Union Ave., Cleveland, O.

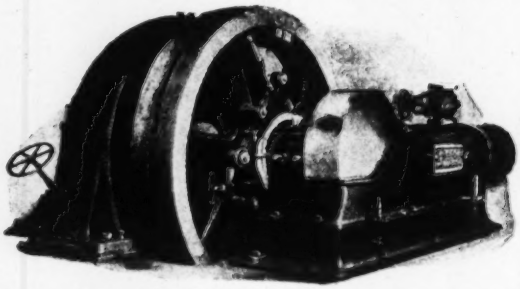
ROAD BUILDING EQUIPMENT

1—Thew **Steam Shovel** A1, ⅞ yd. Dipper.
1—Acme No. 10½D **Stone Crushing Outfit.** Complete with Farquhar Boiler, Elevator, Screens, and 50 Ton Knock-down Bin.
1—Acme No. 9A **Stone Crushing Outfit.** Complete with same equipment as above.
1—International No. 3 **Stone Crushing Outfit** with same Equipment except 50 Ton Portable Bin.
1—Schramm **Air Compressor Outfit** No. 2 Truck mounted with Jap drill and steel.
1—McKiernan-Terry No. 5 **Steam Sheet Piling Hammer** with Gantry Crane and Hoist.

DALE ENGINEERING CO.
Utica, N. Y.

GENERATING UNIT

100 KW



125 Volt

100 KW., 250 R.P.M., SPRAGUE 125 volt, 2-wire Compound Wound D.C. Generator, direct connected to—
16 x 15 Left Hand HARRISBURG Side Crank Enclosed Self-Oiling Automatic Engine, complete with switchboard and instruments.
Has had little service, is thoroughly inspected and overhauled, and subject to any rigid inspection at our Jersey City Works.

CHAS. F. AMES & CO.
90 WEST STREET **Telephone, Rector 6948** **NEW YORK CITY**

LOCOMOTIVE CRANES

1—used Wide Gage McMyler—35 tons capacity, 50 ft. boom. Bucket handling. Now working in N. J.
1—used 20-ton OHIO. Std. gage. D.D.54 in. boiler. 50 ft. boom.

CLAMSHELL BUCKETS

4—new 1½ cu. yd. Lakewoods.
1—used 1½ cu. yd. Mead-Morrison.
1—used Baldwin Locomotive, std. gage, 6-wheeler.
All equipment ready for immediate delivery.

TITAN EQUIPMENT COMPANY
30 Church Street, New York, N. Y.
Phone Cortlandt 1111.

FOR SALE
DREDGE
1—Clam Shell bucket, ⅜3 yard capacity. Engines N. B. CUSHINGS 16-in. x 24-in., in fine condition, for sale cheap.
JOHN WILLIAM SCHAFER
452—15 Street, Brooklyn.
Phone: South 5109.

One Erie
TRACTION SHOVEL
type B ¾ yd. dipper. 20 Teams double harness and dumpers.
McCABE BROS.
1205 Boulevard, Bayonne, N. J.

Some One Wants to Buy

the equipment or machinery that you are not using. This may be occupying valuable space, collecting dust, rust and hard knocks in your shops and yards.

Sell It Before Depreciation Scraps It
THE SEARCHLIGHT SECTION IS HELPING OTHERS
Let It Help You Also

0209

Pumps—Presses—Fittings

FOR 2500 LBS. PER SQUARE INCH PRESSURE

5—Southwark Foundry & Machine Co., Presses, 300 Ton
4—Hydraulic Press Mfg. Co., Presses - - - 300 Ton
6—Boomer & Boschert Presses - - - - - - 250 Ton
1—8 in. x 10 in. 3000 lb. pressure Accumulator

2—2½ in. x 15 in. Blake Duplex 3000 lb. motor driven hydraulic pumps.
1—2½ in. x 12 in. Watson Stillman Duplex 3000 lb. motor driven pump.
1—4 in. x 18 in. Deane Duplex 1500 lb. motor driven hydraulic pump.

Large Quantity Valves, Fittings, Piping—All for 2500 lbs. working pressure. Now partially erected and in fine condition. May be inspected in Brooklyn. Prices far below present market. For information, address

Gillespie Bros. & Co., 135 Front St., New York Telephone John-2805

SEARCHLIGHT SERVICE:

LOCOMOTIVE

"Entirely pleased with advertisement—Just sold a Locomotive to City of St. Louis through News-Record."
Indianapolis Dealer

DREDGE

"Small ad offering an iron suction Dredge for sale resulted in my selling not only the dredge advertised but also another one of the same type since."
Private Owner—Canada

CRANES

"Pleased to advise that the Cranes we advertised in your paper were sold as a result of the advertisement."
New York Dealer

CABLEWAY

"Sold a large Cableway from one insertion of Searchlight advertising."
Contractor—Vermont

STEAM SHOVEL

"Wanted to sell two Steam Shovels. A one-inch Searchlight ad produced enough inquiries to sell a dozen."
Dealer—Boston

RESULTS!

0199

Locomotive Crane

Just Released

For Sale by

HERCULES POWDER CO.

Construction work at our Hattiesburg, Miss., plant has just been completed. The Crane which we purchased for the job several months ago is now surplus. A big saving awaits a quick buyer.

1—20-ton American Locomotive Crane; serial No. 915; 8-wheel truck to operate on standard gauge track; full MCB equipment including air brakes; also 35-ft. boom. Excellent working condition.

For further information, address

XMS DIVISION

HERCULES POWDER CO.

Wilmington **Delaware**

FOR SALE

2—Practically New 14-B **Bucyrus Steam Shovels.** Special Long Boom, Shop Nos. 3339 and 3340.
1—70-C **Bucyrus Steam Shovel,** Shop No. 1245, 2½ yard dipper, located at Indianapolis.
2—35-ton Four Wheel **Rogers Switchers.**
1—Sixty-ton Six Wheel **Switcher.**
1—Ten-wheel Baldwin **Locomotive.**
Other miscellaneous equipment consisting of spreaders, hoist engines, etc.

THE FRED R. JONES CO.
Incorporated
139 North Clark Street, Chicago, Ill.

FOR SALE

1—Holt **Caterpillar** Tractor, latest improved, 40-60, ten ton.
12—5 ton Troy Trailers.
1—Class 7 Bucyrus Dragline, on Caterpillars, 42 ft. boom, 1-yd. bucket.
1—Class **14** Bucyrus Dragline, 60 ft. boom, skids and rollers, 2-yard bucket.
1—Class 20 Bucyrus Dragline, 85 ft. boom, 2½-yd. bucket, skids and rollers.
2—Class 24 Bucyrus Drag Lines, 100 ft. booms, 3½-yard buckets, skids and rollers.
2—9 x 14 **Vulcan** Saddle Tank Locomotives, 36 in. Gauge, Shop Nos. 1673 and 1675.
1—11 x 16 **Vulcan** Saddle Tank Locomotive, Standard Gauge, Shop No. 1087.
1—18B Bucyrus Steam Shovel, traction wheels, ⅞ yard dipper, Shop No. 2182.

BECK & BABB

29 SOUTH LA SALLE ST., CHICAGO

FOR SALE

STEAM HOISTS

4—MUNDY DC. SD., 7 x 10 in. cylinders, DRUMS 16 in. dia., by 22 in. inside w'th 8 in. flanges, condition new, used only TWO WEEKS; PRICE for quick turn $650.00 each.

JOHN WILLIAM SCHAFER
452—15 Street, Brooklyn.
Phone: South 5109.

8 & 9 K CRUSHERS
Regular Drive—Guaranteed

75 H.P. FLORY ELEC. HOIST
440 V., 60 Cy., 3 Ph. A.C. slip ring motor

ROSS POWER EQUIP. CO.
Indianapolis, Ind.

FOR SALE

DUMP CARS

6 yd. K. & J. Good Ones: Steel Plate in Beds Thoroughly Rebuilt. Also 20—4 yd. 36 in. Gage.

PECKHAM & CO.
960 Leader-News Bldg., Cleveland, Ohio

Sound Plant in Good Operating Condition For Sale

CARS

10—Standard gage, 6-yd. Peteler Dump Cars.
20—12 yd. Western dump cars.
14—4 yd. Western dump cars.
9—Pairs Wheels and Axles for heavy duty 4-yd., Western dump cars.

LOCOMOTIVES

2—9 x 14, 13 ton, H. K. Porter, Dinkeys, 36-in. gage.
1—10 x 16, 18 ton H. K. Porter, Dinkey, 36 in. gage.
1—10 x 16, 18-ton Vulcan Dinkey, 36-in. gage.
1—15 x 24-in., 30-ton, 4-wheeled, standard gage switcher.
1—18 x 24 in. fifty ton, 6-wheeled Switch engine.

BOILERS

1—30-hp. Vertical.
For 100 pounds working pressure.
1—45-hp. Loco Type Skids.
1—35 hp. on wheels.

CHANNELLING MACHINES

6—Sullivan Y8 Channelling Machines.

TOOL STEEL

2 tons Black Diamond flat tool steel.

TRUCKS

6—4-wheeled House Moving Trucks.
3—Heavy Machinery Trucks.

COMPRESSORS

1—18 x 18¼ x 24 Ingersoll-Sargent Steam Driven, straight line.
1—Sullivan 2 stage Belt Driven, 887 ft. cap.
1—12 x 12 x 16 Rand Duplex, Steam Driven.
2—Westinghouse 9½-in., steam operated.
1—Westinghouse compound.

CONCRETE MIXERS

1—Ransome 1½-yd., on skids, with steam engine.
1600 sq. ft. of Blaw Panel Forms.

MISCELLANEOUS

10—From 1 to 50 hp. Stationary Steam Engines.
1—Lidgerwood unloader, 25-ton pull.
18—Bottom dump Concrete Buckets, 1¼ to 2½-yd. capacity.

ELECTRICAL MACHINERY

1—60-kw. Belt Driven Generator (Woods).
1—30 Kva. Wagner high efficiency Transformer, 2200 volts, primary 440-220-110 volts, secondary with 5 and 10%.

PUMPS

10—Force Pumps—from 20 to 600 gals. per min. capacity.
1—18½ x 9¼ x 10 Worthington Fire Pump.
1—20 in. belt drive Worthington Turbine.
1—18 in. Morris connected direct to double vertical steam engine.
1—10 in. belt driven double suction volute.

STEAM SHOVELS

6—Steel Skips, extra strong, 1-yd. capacity.
6—Steel Skips, extra strong, 1½-yd. capacity.
3—70 ton Atlantic type 2½ yd. dippers.
1—Model "K" Marion 3½ yd. dipper.
3—Model 20 Marion 1¼ yd. dippers.

DRAGLINES

1—Class 20 Bucyrus Dragline.
1—No. 1. Lidgerwood Dragline.
1—No. 1 Clyde Dragline.

ROCK DRILLS

50—Tripod rock drills, steam or air operated.
2—Drill steel sharpeners.

All thoroughly overhauled and ready for immediate and constant service.

UNITED STATES EQUIPMENT CO., 208 S. La Salle St., Chicago

FOR SALE

New Little Giant

ROAD CRANE

Immediate delivery. Factory guarantee. Price considerably below present cost. Cash or terms.

FS749—Engineering News-Record
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YOU CANNOT BUY A BETTER CRANE
DIRECT FROM THE MAKER
20 TON BROWN HOIST

Type "H" 8-wheel M. C. B. 50-ft. Boom 54-in. Butt Strapped Boiler D. D. for Clam Shell Bucket. Full Steel House. Steam Brakes. Price very low. New in April 1920. Has had only 4 months light service. This machine is NEW even to the original paint.

Wire or Phone

Moore Bros REBUILT MACHINERY

39 S. La Salle St.
Chicago, Ill.

FOR SALE OR RENT—*OWNED BY US AND SOLD UNDER ABSOLUTE GUARANTEE SUBJECT TO TRAIL IN SERVICE*

DUMP CARS

60—16 yd. standard gauge Western Air Dump Cars, steel underframes, box girder doors, U. S. Safety Appliance standard.
45—12 yd. standard gauge Western Air Dump Cars, steel underframes, U. S. Safety appliance standard, 19 ft. beds, box girder doors.
40—12 yd. standard gauge Western Air Dump Cars, used four weeks, 60,000 cap., trucks, latest type with vertical air dump cylinders, steel underframes, box girder doors and most approved safety appliances.
8—8 yd. 36 in. gauge double trucks Western Air Dump Cars with steel underframes and box girder doors.
12—4 yd. 36 in. gauge Western Side Dump Cars.
2—Western 36-in. gauge Spreader Cars.

STEAM SHOVELS

1—Bucyrus 18-B, full revolving steam shovel, shop No. 1870, mounted on traction wheels, ⅞ yd. dipper.
4—70-C Bucyrus, Shop Nos. 1160, 1331, numbers 1776, 1899, 2400, 2½ yd. 1371, 1472, 2½-yd. dippers.
3—Model 60 Marion Steam Shovels, shop dippers with full manganese face; butt strap boilers. Shovels complete with tools and work rail sections.
1—65-ton Bucyrus, Shop No. 349, 2½-yd. dipper.

COMPRESSORS

1—20 x 22¼ x 15¼ x 21 AA-2 Ingersoll-Rand Compressor; 1600-ft. capacity

1—16 x 16 x 18-in. Laidlaw-Dunn-Gordon Air Comp., with reservoir; weight 15,000 lb.

LOCOMOTIVES

1—Standard gauge 14 x 20 cylinder, Vulcan, 4 wheels, saddle tank Locomotive, Shop No. 1501; weight 40 tons; automatic couplers; air brakes.
1—Standard gauge 16 x 24 cylinder, 4-wheeled, saddle tank Locomotive, built by American Locomotive Wks. in 1907, Shop No. 44337; weight 43 tons; air brakes, automatic couplers.
1—Standard gauge, 16 x 24 cylinder, 4 wheeled switcher with separate tender; class J-3 C. M. & St. P. Ry. Weight 35 tons.
2—Standard gauge, 16 x 24 cylinder 6 wheeled switchers, built in 1910 by Baldwin Locomotive Works; 180 lbs. steam pressure; weight 43 tons on drivers.
1—Standard gauge, 18 x 24 cylinder, 6-wheeled, switching locomotive, with separate tender; weight 50 tons on drivers.
1—Standard gauge, 10 x 16 Cylinder Porter, 4-wheels, saddle tank Locomotive; air brakes, automatic couplers; weight 19 tons.
2—36 in. ga. 10 x 16 cylinder Porter 18 ton saddle tank Locomotives; Shop numbers 4615 and 5065; extended saddle tank, wide fire box, steam brakes and modern equipment.
1—36 in. ga. 11 x 16 cylinder Vulcan 21 ton saddle tank Locomotive; Shop number 1865, butt strap boiler, air brake equipment.
1—36 in. gauge, 10 x 16 American saddle tank Locomotive, weight 18 tons.
1—36 in gauge 9 x 14 cylinder Vulcan 13 ton Saddle Tank Locomotive, steam brakes.

DRAGLINE EXCAVATORS

1—No. 3T Monighan Walker type, all steel, steam operated Dragline; 60 ft. boom with 15 ft. extension; 2 yd. to 3 yd. bucket.
1—Class 14 Bucyrus, steam operated, all steel dragline, 60 ft. boom, 2 yd. Page bucket, mounted on skids and rollers.
1—No. 2 Monighan steam operated, all steel Dragline, 60 ft. boom; 2 yd. Page bucket, mounted on skids and rollers.
1—Class B Lidgerwood all steel dragline; Shop number 164; 60 ft. boom, 1½ yd. Page bucket; mounted on skids and rollers.
3—Class 7, Bucyrus Draglines, Shop Nos. 798, 799, 827; steam operated, all steel construction 42 ft. booms; 1 yd. Page buckets, mounted on skids and rollers.

CLAPP, NORSTROM & RILEY EQUIPMENT CO., 12 and 14 So. Canal St., Chicago

COMPRESSORS

2000 ft. WC Sullivan, steam.
1825 ft. Rand Corliss, steam 30 lb. air.
2—1666 ft. XPV-4 Ingersoll, steam, 70 lb. air.
2—1575 ft. Rand Corliss, steam, 25 lb. air.
1190 ft. X-3 Ingersoll, steam.
557 ft. WB-2 Sullivan, steam.
396 ft. WB-2 Sullivan, steam.
160 ft. X-2 Ingersoll, steam.
2—345 ft. WA-5 Sullivan, steam, **new.**
2650 ft. WN-4 Sullivan Electric Driven, **new.**
1190 ft. XB-2 Ingersoll, belt.
888 ft. XB-2 Ingersoll, belt, **new.**
599 ft. XB-2 Ingersoll, belt, **new.**
464 ft. ER-1 Ingersoll, belt.
179 ft. NE-1 Ingersoll, belt.

BOILERS

8—350 hp. B & W Boilers, 160 lb.
3—200 hp. Mass. Std. HRT Boilers, 160 lb.
1—100 hp. HRT Dillon Boiler, 100 lb. Mass.
1—60 hp. Ames Locomotive Portable Boiler, 105 lb. Conn.
1—40 hp. Ames Locomotive Type Boiler, 100 lb. Mass.

A. LEE ELLIS
10 High Street, Boston, Mass.

PLANT FOR SALE

We own and offer, subject to prior sale or withdrawal, the following plant:

1—Sullivan Cross Compound Compressor, 120 lb. pressure, Class W N O 2, direct connected to 1—400 horsepower Westinghouse Motor, 6600 v., 3 phase, 25 cycle.

10—Ingersoll-Rand, 28 in. x 24 in., Class P R E-1 Compressors, 45 lb. pressure, with aftercoolers, direct connected to

10—Westinghouse Motors, 600 horsepower, 6600 v., 3 phase, 25 cycle.

O'ROURKE ENGINEERING CONSTRUCTION COMPANY
17 Battery Place, New York City

MARINE BOILER

1—200 hp. High Pressure Scotch Marine Boiler. Priced to sell.

FS728 Engr. News-Record
1570 Old Colony Bldg., Chicago, Ill.

FOR SALE

1—8 x 8 Ingersoll Compressor connected to one 15 hp. Nove Engine mounted on wheels, 100 lb. pressure.
1—10 x 10 Ingersoll Straight Line Steam Compressor for 100 lb. pressure.
1—Type A-1 Thew Shovel No. 1367.
1—Good Roads Machinery Bucket.
Elevator 28 ft. long with track hopper.
All above equipment in very good condition ready for immediate delivery.

L. C. FAY & CO., Inc.
803 Hitchcock Building, Springfield, Mass.

IMMEDIATE DELIVERY

No. 8 and No. 9 GATES CRUSHER REG. DRIVE
2—150 hp. 125 lbs. HRT boilers, butt strap.
4—No. 6 Gates (Mang. Fit.), nickel steel shafts.
1—No. 7½ and 1—No. 8 Gates regular drive.
No. 4 Telsmith plant, A.C. motor drive.
Air compressors (steam belt) 50 to 1,000 ft.
40 boilers 60-150 hp., 100-130 lbs.
75 H.P. LOCO. BOILER, 125 lbs.
4—NEW No. 4 Gates, Mang. Fit., $2,000 each.
10 coils Roebling ⅝ in. traction cable (used).
3-bag Koehring paver, practically new.
Type "O" ⅜-yd. Thew steam shovel.
50, 25, 20, 15 and 125 kw. engine and turbos.
1—42 x 16 in. TRALYOR ROLL CRUSHER.
2—156 kva., 240 v., 60 cy., 3 ph. engine sets.
50 kw., 125 v. Dir. Cur. Eng. set, $800.

Send us your inquiries—Pumps, Steam and Electric Equipment Etc.

ROSS POWER EQUIP. CO.
Indianapolis, Ind.

CABLEWAY ENGINE

1—Lidgerwood special 12 x 12 cableway engine, shop No. 30093-4 with cable and carrier.

STONE CRUSHER

1—Gyratory No. 6-F with fittings.

Holbrook, Cabot & Rollins Corp.
52 Vanderbilt Ave., New York City

Air Compressors

1—70 cu. ft. Fairbanks Morse Gasoline Compressor on wheels.
1—525 cu. ft. Laidlaw-Dunn-Gordon Compound.
1—1600 cu. ft. Ingersoll Compound.
1—800 cu. ft. Ingersoll Compound.
2—300 cu. ft. Laidlaw-Dunn-Gordon Simple.
1—600 cu. ft. Blake Low Pressure.

MARVIN BRIGGS, INC.
167 Sixth St., Brooklyn, N. Y.

BOILERS

We offer subject to prior sale the following used boilers:

10—B & W 275 hp., 125 lb. pressure.
12—Sotter Bros. 140 hp., return tubular, 90 lb. pressure.

Chief Engineer's Office

National Sugar Refining Co. of N.J.
Yonkers, N. Y. (U. S. A.)

BARGAINS

250 H.P. High Press Marine Boiler.
250 H.P. Allis Chalmers Corliss Engine
150 H.P. High Press. Return Tubular Boiler.
558 cu. ft. Steam Driven Sullivan Air Compressor.
10 x 12 Atlas Second Motion Mine Hoist.
1000 lb. Niles Steam Hammer.
26-in. x 14-ft. 0-in. Reed Lathe.

Deckard Steel & Iron Co.
5th and Smelter Aves., Pittsburg, Kans.

Second-Hand

MACHINERY

Contractors' Equipment

Stacks, Tanks, Pipe, Etc.

What are your requirements?

HENRY A. HITNER'S SONS CO.
4501 Richmond St., Philadelphia, Pa.

FOR SALE

LOCOMOTIVE—25-TON

36 in. Gage; 4-D Saddle Tank; good one, Rebuilt now.
Also 20 Ton 36 in. G. Baldwin, 36 in.

PECKHAM & CO.
Leader-News Building, Cleveland, Ohio

Locomotive Boiler—Bargain

We have a 90 hp. Boiler which passed Hartford Inspection at 75 lb. pressure this month. Suitable for heating purposes and in first class condition. Complete with all fittings, except stack, at $600.00 F.O.B. Cars Milwaukee. Wire, 'phone or write.

HUNTER MACHINERY COMPANY
208-210 Wells Street, Milwaukee, Wisc.

FOR SALE

ONE STEEL STACK

125 ft. high, 4 ft. 2 in. diameter, ¼ in. plate. Fine condition. Also breeching. Easily set up complete. Price reasonable.

Address inquiries Purchasing Dept.
SHERWIN-WILLIAMS CO.
Kensington, Ill.

PORTABLE COMPRESSORS

FOR SALE OR RENT

2—183 foot Chicago Pneumatic, Kerosene
1—120 foot Schramm, Gasolene
3—105 foot Chicago Pneumatic, Gasolene
1—90 foot Chicago Pneumatic Gasolene.
All on wheels
2—150 foot Westinghouse steam

JOHN H. KNIGHT
448 E. Tremont Ave., New York City.

PIPE | PIPE | PIPE

For Immediate Shipment

2,000 TONS NEW AND SECOND HAND **PIPE**

ALBERT & DAVIDSON
256 Oakland Street, Brooklyn, N. Y.

PIPE

30,000 ft., 1 in.
10,000 ft., 1¼ in.
8000 ft., 1½ in.
70,000 ft., 2 in.
3000 ft., 2½ in.
12,000 ft., 3 in.
70,000 ft., 4 in.
100,000 ft., 6 in.

Completely overhauled with new threads and couplings. Also Boilers, Tanks and Rails.

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ST. LOUIS, MO.

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New and Second Hand **PIPE** With New Threads and Couplings

LARGE STOCK. ALL SIZES.
IMMEDIATE DELIVERY
Pipe Cut and Threaded to Sketch

WROUGHT-PIPE
New, Second-hand and Mill Seconds
BOILER TUBES

EAGLE PIPE & SUPPLY Co.
General Offices-Woolworth Building
NEW YORK CITY

For *PROMPT* delivery of
Pipe Fittings and Valves
take up with
MARYLAND PIPE SUPPLY COMPANY
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Cast Iron B & S Pipe

About 200 tons new pipe, size 4 in. to 30 in. with approximately 150 tons of specials and valves, for shipment from stock and at attractive prices.

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Philadelphia, Pa.

PIPE
Second Hand and New
Large stock, all sizes.
Immediate Delivery.

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Re-Newed Pipe
1-in. to 6-in.
With New Threads and Couplings.
"We Test Our Pipe"

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High Pressure Hydraulic Fittings For 2500-lb. Working Pressure

SIZES (½ inch to 6 inches)
VALVES (Balanced stops and operating) for 2500 lb. pressure.

TEES (3,000 lb.) ELBOWS (3,000 lb.)
CROSSES (3,000 lb.) FLANGE UNIONS (4,000 lb.)

Location of Material—New York

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PIPE SECOND HAND
With new threads and couplings; also cut to sketch.
PFAFF & KENDALL
Ferry & Foundry Sts., Newark, N. J.

PIPE
Large Stock All Sizes
New and Second Hand
REPUBLIC PIPE & IRON CORP.
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BROOKLYN, N. Y.

WROUGHT IRON AND STEEL PIPE

New and second-hand. With new threads and couplings. All sizes from ½ to 12 in. Also cut to sketch.

DAVIDSON PIPE & IRON CORP.
436-40 Kent Ave., Brooklyn, N. Y.

For Pipe Buyers **Engineering News-Record's PIPE PAGE** *For Pipe Sellers*

FOR SALE

1—All Steel Stiff Leg **Derrick** 80 ft. boom. 20 ton capacity.
1—No. 12 **Koehring Paver** with steam power, boom and bucket, used one week.
1—New 1½ yard Hayward Orange Peel **Bucket.**
1—1¼ yard Lakewood Clam Shell **Buckets.**
1—75 hp. Thomas D. D. Electric **Hoist** 3 phase 60 cycle 220 volts.
1—50 hp. Thomas D. D. Electric **Hoist** 3 phase 60 cycles 220 volts.
1—25 hp. Clyde S.D. Electric **Hoist,** 3 phase, 60 cycle, 220 volts.
1—100 hp. Thomas D. D. Electric **Hoist** 240 volts D. C.
1—25 hp. Lidgerwood D. D. Electric **Hoist** 240 volts D. C.
2—40 hp. Fire Box **Boilers** on Wheels.
2—50 hp. Fire Box **Boilers.**
1—16 x 18 x 11 x 16 Sullivan Steam Driven **Air Compressor.**
1—19 x 12 x 16 Ingersoll-Rand Imperial type belt driven **Air Compressor,** with or without Motor.
1—450 ft. Sullivan Class W.J.3 angle compound belt driven **Air Compressor,** with or without Motor.
1—Chicago Pneumatic Tool Co. 2 stage belt driven **Air Compressor** 628 cubic feet.
1—10 x 12 Chicago Pneumatic Tool Co. belt driven **Air Compressor** with or without Motor.

MERTES MACHINERY CO.
Milwaukee, Wis.

CURTIS IMPULSE STEAM TURBINES

Two Type S, General Electric Company. Ahead and astern turbine carried on one shaft in the same casing. The ahead turbine developing 2500 hp. at 3234 r.p.m., when supplied with steam at 200 gage and 50 super-heat at first stage bowl, working against 28½ in. vacuum. Astern turbine developing 1650 hp. when running at 2050 r.p.m., supplied with steam conditions as mentioned for ahead turbine.

Five stages in head turbine and two for reversing unit.

TWO MANEUVERING VALVES complete, consisting of Duplex Valve with horizontal spindle, of balance type operated by two levers mechanically interlocking, making it impossible to open but one valve at a time.

EMERGENCY VALVE with Steam Strainer.

GUARDING VALVE for reversing unit.

The above units have been in service less than three years, have been well taken care of, and are in excellent condition. Can be inspected and prices quoted at

ATLANTIC REFINING COMPANY
3144 PASSYUNK AVENUE, PHILADELPHIA, PA.

IMMEDIATE DELIVERY

1—30 ton **Terry Steel Derrick** 65 ft. boom, 75 ft. mast complete with guys turn buckles and bull wheel. Price $3800.
1—**Cleveland Tractor Wieldey Motor,** steel caterpillar tracks. Ready to work. Price, $800.
1—76-ft. boom. American Hoist wood **sled derrick,** similar to cut 805, page 119 American Hoist & Derrick Co. catalogue. $2000.
1—1½-yd. Class S, Page **Drag Line Bucket,** $650 f.o.b. our yard.
6—1½-yd. Koppel **Bottom Dump Buckets,** $100 each f.o.b. our yard.
2—No. 641 D.S. 1¾-yd. Lakewood Handler **Clam Shell Buckets,** A1 condition, $850 each f.o.b. our yard.
1—2-yd. Sauerman **scraper bucket** with blocks and shackles. $1.000.
2—Size 28, one-yd. Lakewood **concrete mixers** with steam engines and batch hoppers, $2.000 each, f.o.b. our yard.
1—15-Hp. **Port Huron Tractor,** $600 f.o.b. our yard.

THE DAY & MADDOCK CO.
Winslow Ave., N. W. & B. & O. R. R.
Bell Phone Main 422 Cleveland, Ohio

SELL OR RENT

LOCOMOTIVE CRANES

Browning: 35-ft. Boom, 15 Ton.
Industrial: 35-ft. Boom, 10 Ton.

Good Cranes—Rebuilt

F. A. PECKHAM & COMPANY
960 Leader-News Bldg., Cleveland, Ohio

PRIVATE EQUIPMENT FOR SALE OR RENT

Byers Auto Crane Model C, ⅝ yd. clam shell.
Thew steam traction shovel ⅝ yd.
8000 ft. 24 in. gauge portable track 20 lb.
Whitcomb 24 in. gauge locomotive.
Austin 2 bag paver, caterpillar.
Holt caterpillar tractor 45 hp.
3 Port Huron all steel trailers.
Roller, 3 wheel, 10 ton
National road grader 10-ft. blade.
Sturtevant rolls 20 x 14.
Austin No. 5 gyratory crusher, screens, etc.
65 ton Bucyrus railroad shovel ½ yd.
7000 ft. 2-in. waterpipe.
Derricks (stiff leg and guy).
⅝ yd. Hayward orange peel bucket.
16 x 24 stand. gauge 40 ton locomotive.
12 x 14 Climax geared stand. gauge locomotive.
50 Koppel cars 1¼ yd., 24-in. gauge.
Derrick car, stand. gauge.
Jaw crusher, 9 x 16.
American Ring Roll mill.

Daniel B. Straley, Crown Point, Ind.

HOISTS

1—8 x 12 double cylinder, double drum Mundy Hoist with 4 independent spools butt strapped boiler.
1—8 hp. single drum, double cylinder, Byers Builders Hoist.
1—16 hp. double drum, double cylinder Byers Hoist.
1—7 x 10 double cylinder, double drum Lidgerwood Hoist.
1—7 x 10 double cylinder, double drum Mead-Morrison Hoisting Engine.

EMPIRE ENGINEERING & EQUIPMENT CO.
Empire Building, Pittsburgh, Pa.

FOR SALE

1—25 ton, electric

Traveling Crane

or hoist symbol made by Niles-Bement-Pond Co.; center to center of runway rails, 78 ft. 4 in.; approximate vertical travel of hook, 24 ft.

United Electric Light Co.
Springfield, Mass.

1—Koehring Paver, size 14.
1—20-in. Hydraulic dredge.
21—K. & J. Std. gage 6 yd. dump cars.
4—36 in. Gage Vulcan locomotives.
Bucyrus shovels: 70 and 65 ton.
Marion 60 shovel.
2—Floating derricks.
1—Traveling derrick with 3-drum 9 x 10 engine.
Hoisting engines: Mundy 8½ x 13 and 7¼ x 10.
Hayward Orange Peel buckets, 1 yd. and 3 yd.
Clamshell buckets: ¾ yd., 1 yd. and 1½ yd.
10 and 15 ton Locomotive crane.
75 ton 30 ft. Lack. A-Web Piling.

J. T. WALSH
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THREE-DRUM HOIST BARGAIN
Quick shipment 3 Drum 8¼ x 10 Lambert Hoist, complete with Swinger and Lap Joint Boiler. Bargain Price for Cash. Like New. Wire, write or phone:

HUNTER MACHINERY COMPANY
208-210 Wells Street, Milwaukee, Wisconsin.

FOR SALE
Boom for Locomotive Crane
70 ft. Long: Same as New. Steel Lattice: Extra Bracing Built for 20-25 Ton Crane Width Base Connections 52 in. Also 10 Ton, 4-w. Industrial Crane.
PECKHAM & CO.
Leader-News Bldg., Cleveland, Ohio

For Sale or Lease
HOISTS
Compressors—Boilers—Mixers
Derricks—Cableways
See list in issue of Feb. 12.
HOISTING ENGINE SALES COMPANY
Grand Central Sta., New York City

P & H Caterpillar Crane
BARGAIN
We have No. 205 outfit, used only four months, like new, complete with one-half yard Power Wheel Bucket, F.O.B. Cars. For bargain price 'phone, wire or write.
HUNTER MACHINERY COMPANY
208-210 Wells Street, Milwaukee, Wisc.

Guaranteed Equipment for Contractors AVAILABLE AT ONCE

STEAM SHOVELS
STANDARD GAUGE

2—95-ton Bucyrus railroad type, 5-yd. dipper, 90 per cent new.
10—70-ton Bucyrus railroad type, 2½-3-yd. dipper 90 per cent new.

LOCOMOTIVES
STANDARD GAUGE

2—63-ton Mogul, 2-6-0 type, built by American Locomotive Works, 95 per cent new. Standard gauge.

HOISTING ENGINES

1—8¼ x 10-in. Clyde, double cylinder, double drum Hoisting Engine, with boiler.
1—9 x 10-in. Russell, double cylinder, double drum Hoisting Engine, heavy duty type, without boiler.
4—7½ x 10-in., double cylinder, single geared Drum Hoisting Engine, with reversing throttle valves.

DUMP CARS
STANDARD GAUGE

150—12-yd. Western & Oliver all-steel, two-way Dump Cars. Standard gauge.
50—1¼-yd. 20-in. gauge, wood body, two-way Dump Cars.
3—36-in. gauge, 8-wheel Flat Cars, 40,000 lb. cap., 7-ft. wide, 20-ft. long, wheels 24-in. diam.

MISCELLANEOUS EQUIPMENT

7—Westinghouse, 250-hp. Motors, Type C.C.L., 440-volt, 60-cycle, 3-phase motors. Speed 514 r.p.m., with base and starters. Can be furnished with pulley or flange coupling.
1—10-ton, 3-wheel Steam Road Roller.
1—No. 1 Chicago Concrete Batch Mixer, with Steam Roller and Engine on wheels.
17—½-yd. Bottom Dump Concrete Carts.
50—1½-yd. All Steel Bottom Dump Buckets.
27—Hydraulic Tunnel Jacks, 8½ in. diam. ram, 32 in. stroke.
1—No. 7½ Austin Gyratory Stone Crusher.
1—12 x 24-in. Reliance Jaw Crusher.
1—3-ton American, 4-wheel Locomotive Crane, standard gage, 24-ft. boom.

CORRUGATED STEEL SHEETS
NEW

500—Squares 12-gauge 5 in. corrugations, O. H. Curved Steel Sheets (four forming a circle).
100 Squares 12 gauge 5 in. corrugations, O. H. Flat Steel Sheets.
3000—Squares, 22 gauge, 2½ in. corrugations. Width 27½ in., length 7 ft. and 10 ft.

BOILERS

1—100 hp. Firebox Boiler, 100 lb. pressure.
2—100 lb. Internally fired Marine Type Boiler, 100 lb. pressure.
1—50 hp. Vertical Boiler, 100 lb. pressure.
1—30 hp. Vertical Tubular Boiler.
10—250 hp. Water Tube Boilers, 200 lb. pressure. Complete with steel casings.
1—60-hp. Locomotive Firebox Boiler, 160 lb. pressure.

TANKS

1—Open Top Storage Tank, approximately 4 ft. wide, 7 ft. deep, 10 ft. long, ¼-in. material.
10—Open Top Storage Tanks, 40 in. wide, 66 in. deep, 77 in. long; 3/16 in. material.
1—Open Top Storage Tank, 10 ft. wide, 6 ft. 9 in. deep, 16 ft. long; about ¾ in. material.
1—Open Top Storage Tank, 6 ft 9 in. wide, 10 ft. deep, 16 ft. long; about ⅜ in. plate.
2—Open Top Storage Tanks, 6 ft. 9 in. wide, 5 ft. deep, 16 ft. long; about ⅜ in. material.
2—Open Top Storage Tanks, 10 ft. wide, 3 ft. deep, 16 ft. 3 in. long; about ¾ in. material.

CENTRIFUGAL PUMPS

1—6-in. Swaby Horizontal Centrifugal Pump.
1—8-in. Fairbanks-Morse Horizontal Centrifugal Pump.
1—10-in. Fulton Horizontal Centrifugal Pump.
1—12-in. Worthington Horizontal Centrifugal Pump.
1—24-in. Kingsford Horizontal Centrifugal Pump.
2—4-in. Young Horizontal Centrifugal Pump.

STEEL BUILDINGS—
For Prompt Delivery

We have available for prompt shipment the following Structural Steel Buildings. All these buildings are designed to mount a 15-ton traveling crane and will pass building ordinances. All modern designs. Steel 95 per cent new. Center to center of crane rails can be adjusted to accommodate any standard crane.

SIZE OF BUILDINGS

Width Ft.		Length Ft.		Height Ft.
50	x	200	x	32
50	x	300	x	32
50	x	400	x	32
60	x	200	x	34
60	x	300	x	34
60	x	400	x	34
75	x	200	x	34
75	x	300	x	34
75	x	400	x	34

Write for Steel Book No. 30.

Write for Complete Machinery List No. 308.

HARRIS BROS. COMPANY, 1406 W. 35th St., Chicago, Ill.

FOR SALE

STEAM SHOVELS CONCRETE MIXER PUMPS, DRILLS, ETC

1—Marion Model 60 Steam Shovel.
1—Pile Drop Hammer.
1—Haines Concrete Mixer.
2—Scraper Towers, 65 ft.
1—Horizontal engine, 11 in. 15 in., 50 hp.
2—Cameron Pumps.
5—Steam Drills, E-24.
1—Wagon Drill, H-61.
1—McMyler Clamshell.

Write for prices and description of any article wanted

Acme Engineering & Contracting Co.
Herkimer, N. Y.

FOR SALE

MARION SHOVEL

Model 31 on traction wheels. Excellent condition.

BYERS AUTO CRANE

Type "C" on traction wheels with bucket.

Many others—Advise requirements Phone or Wire

C. G. A. SCHMIDT, Jr.
639-41 Land Title Building, Phila., Pa.
Spruce 4745

STEAM SHOVEL

Marion Model 20

Immediate Shipment

Attractive Price

L. A. GREEN
RAIL & MACHINERY COMPANY
1113 First Nat'l Bank Bldg., Pittsburgh, Pa.

LOCOMOTIVES FOR RENT OR SALE

2—50-ton 18 x 24 in. six-wheel switchers.
1—40-ton 17 x 24 in. four-wheel switcher.
1—40-ton Vulcan four-driver saddle-tank.
2—18-ton and 14-ton 36-in. gauge Vulcans.
2—10-ton 7 x 12 in. 36-in. gauge Vulcans.
1—10-ton 36-in. gauge Shay geared.

MISCELLANEOUS

1—Marion 35 steam shovel on traction wheels.
1—Marion 76 steam shovel, No. 3503.
1—Lidgerwood dragline, 60-ft. boom, 2-yd. bucket.
100—60,000-lb. capacity box cars, 40-ft. long.
40—60,000-lb. capacity flat cars, 36-ft. long.
13—6-yd. dump cars, 4-ft. 8½ in. gauge.
12—1½-yd. "V" steel dump cars, 36-in. gauge.
1—Western standard gauge spreader. 2-in., 4-in. and 6-in. simple, duplex, and centrifugal pumps, 10-hp. and 45-hp. upright boilers, tripod drills, etc.
Locomotive Cranes, Railway Equipment, etc.

INDUSTRIAL EQUIPMENT CO.
McCormick Building, Chicago, Ill.

NEW MIXERS
in stock for immediate delivery

4-S 10-S
7-S 14-S

Smith Mixers

With or Without Power Loaders
GUARANTEED USED EQUIPMENT

1—"Boss" 10 ft. wet capacity, power loader
1—"Boss" 7 ft. wet capacity, power loader
1—"Packard" 7 ft. wet capacity, low barrow
2—"Boss" 4 ft. wet capacity, low barrow
1—"Ideal" 4 hp. Single drum gasoline hoist
1—"Lidgerwood" D.C. D.D. 7 in. x 10 in. steam hoist with boiler
1—"Farquhar" 8½ in. x 11 in. center crank

Portable steam engine and boiler
Send me your inquiries.

H. M. HIRSCHFELD
Phone Cortlandt 1305 50 Church St., N. Y.

CLAM SHELL BUCKETS

½ and ¾ cu. yd. per day $4.00
1 and 1¼ " " " 5.00

FOR SALE NEW AND REBUILT HAISS

For All Purposes

140th St. and Rider Ave. New York

STEAM SHOVELS

Osgood 73 Railway, immediately available.
Marion Model 36 Traction Revolving, 1½ yd.
Erie Type B Traction, ¾ yd. Excellent condition.
Marion Model 21 Caterpillar, slightly used.
Osgood 29, combination shovel and crane.
Thew No. 0 Electric, with combination railway and traction trucks.
2—Marion Model 31, 1-yd. Revolving.
Marion Model 61 Railway, 2½-yd. Like new, ready for immediate service.
Also large revolving stripping shovels.
Wire, write, or call for further details.

W. R. WADDELL
50 Church St., New York City
Telephone: Cortlandt 4873

FOR SALE OR RENT

REVOLVING STEAM SHOVELS

2—Thew "O" ⅝-yd. dippers.
1—Thew "A1" ⅞-yd. dipper.

Rebuilt ready for delivery.
Located Jersey City.

JAS. S. BRADEN
26 Cortlandt St., New York City

PAVING MIXER FOR SALE

Koehring, 2 bag batch capacity, steam driven, 20 ft. boom and bucket, power traction ahead and reverse. Completely rebuilt. Immediate shipment. **Price $2100 complete loaded.**

H. Y. SMITH CO.
Milwaukee, Wis.

SHOVELS

One (1) No. 0 Thew Traction Shovel.
Two (2) Type B. Erie Traction Shovels.
One (1) Model 28 Marion Caterpillar Shovels.
One (1) Model 31 Marion Caterpillar Shovel.
One (1) Model 31 Marion Traction Shovel.
Everything for the Contractor.
Send us your inquiries. We are reasonably sure to be able to serve you.

W. E. KENNEDY CO.
Union Bank Bldg., Pittsburgh, Pa.

FOR SALE

4—HOLT TRACTORS

3—45's 1919 Model.
1—45 1917 Model.

ALBERT LEA FARMS CO.
Albert Lea, Minn.

LOCOMOTIVES

Both Narrow and Standard Gauge, completely rebuilt

STEAM SHOVELS

1—Model 80-C Bucyrus, 4-yd. dipper.
3—Model 60 Marion.
3—Atlantic type, 2½ yd. dipper.
1—Bucyrus 45, 2-yd. dipper.
1—Model 70-C Bucyrus.
1—Marion, Model 20.

Also

DUMP CARS

of various types and capacities.

All in stock in Atlanta, Ga.

SOUTHERN IRON & EQUIPMENT COMPANY
Established 1889, Incorporated 1906
Branch Offices, New Orleans, La.
Main Offices and Plant, Atlanta, Ga.

CARS FOR SALE

36—4 yd. steel draft sill Western 36 in. gauge
12—6 yd. Western and K. & J. standard gauge.
12—1 yd. V Body Lakewood 24 in. gauge.
20—50 ton all steel hopper coal cars, standard gauge.
40—30 ton wood body steel draft sill hopper bottom.

LOCOMOTIVES

1—Mogul 30 ton 36 in. gauge 180 lb.
1—Mogul 45 ton, 36 in. gauge, 185 lb.
1—Consolidated standard gauge 82 ton 200 lb.
2—Vulcan 36 in. gauge, four wheel, saddle tank 11 x 16 in.
2—Porter saddle tank standard gauge, 12 x 18 in.
1—Porter saddle tank 36 in. gauge, 10 x 16 in.
1—Vulcan saddle tank 36 in. gauge, 6 x 10 in.

STEAM SHOVELS

2—type B Erie ¾ yd. traction.
1—Osgood 18¾ yd. traction.
2—70C Bucyrus standard gauge 2½ yd.
1—61 Marion standard gauge 2½ yd.

Boiler, Engines, Compressors

THOMAS F. CAREY CO.
120 Liberty St., New York

CARS

75—Standard gauge, 50,000 lb. capacity flat.
10—Cattle cars, metre gauge.
10—Box cars, metre gauge.
1—Standard gauge box car.
1—Standard gauge passenger coach.
4—Metre gauge passenger coaches.

HOISTING MACHINERY CO.
50 Church Street, New York

BOX CARS
Steel Underframe

Immediate Shipment

All in A.R.A. Interchange Condition.
Capacity 60,000 lbs.
Length 40 feet.

GONDOLA CARS

Capacity 80,000 lbs.
Length 40 feet.

REBUILT FLAT CARS STEEL UNDERFRAME

Capacity 60,000 lbs.

44-ft. cars suitable for Bunk Cars.

FOR RENT

60,000 capacity, 36-ft. Box Cars.

Asphalt Plants Locomotives
Locomotive Cranes
Road Rollers

P. E. FRANCIS & CO.
Railroad and Industrial Equipment
Marquette Bldg., Chicago, Illinois

Cars and Switches

8—36 in. gauge, 1½ yd. spring truck journals two way V dump cars. New. Price, $200 each.
12—24 in. gauge, 1 yd. rotary dump cars. Price, $75 each.
12—24 in. gauge, 1 yd. two way V dump cars. Price, $75 each.
4—36 in. gauge. Switches.
20—30 in. gauge. Switches. One and two way.

All Manufactured by Lakewood Eng. Co.

THE DAY & MADDOCK CO.
Winslow Ave. N.W. and B. & O. R. R.
Bell Phone Main 422 Cleveland, O.

40-Ton Saddle Tank Locomotive

15 x 24, standard gauge, BALDWIN, 150 lb. steam pressure, 3 in. tires, excellent condition, immediate shipment.

Grey Steel Products Co.
111 Broadway, New York

LOCOMOTIVES

6 x 10 Vulcan Locomotive, 42 in. gauge.
9 x 14 Davenport Locomotive, 42 in. gauge.
10 x 14 Vulcan Locomotive, 36 in. gauge.
10 x 16 Vulcan Locomotive, 36 in. gauge.
7 x 12 Davenport Locomotive, 36 in. gauge.

ENGINES

13 x 15 Skinner 150 hp. Automatic.
11 x 16 Rice 65 hp. Automatic.

TANKS

27 ft. diameter by 23 ft. high, 100,000 gallon water tank, ¼ in. steel. In first-class condition.

HOISTING ENGINES

7 x 10 D.C. S.D. Lidgerwood Engine.
9 x 12 D.C. S.D. Coal Hoisting Engine.
12 x 24 D.C. S.D. First Motion Coal Hoist.

All rebuilt in our shops.

The Pittsburg Boiler & Machine Co.
Pittsburg, Kans.

WESTERN AIR DUMP CARS

FOR SALE OR FOR RENT

12-yard and 16-yard capacity.

Suitable for the heaviest construction or maintenance service.

All cars absolutely guaranteed in condition and U. S. Safety appliance standard.

Our cars now leased by twelve railroad systems.

CLAPP, NORSTROM & RILEY EQUIPMENT CO.
14 So. Canal St., Chicago, Ill.

10 x 16 in. Dinkey

ONE 36-INCH GAUGE

10 x 16-in. four-wheel Porter saddle tank locomotive. Shop No. 2164. Overhauled. Reasonable price. Located Chester, Pa.

E. H. WILSON & COMPANY
COMMERCIAL TRUST BUILDING
PHILADELPHIA

FOR SALE

150 Cars, 10 Dinkeys.
4—Draglines, 7 Loco Cranes.
3—Trenchers, 7 Crushers.
800 Tons Rail, 3 Dredges, and 7 Steam Shovels.

J. F. DONAHOO CO.
Birmingham, Ala.

LOCOMOTIVE

75 ton American 4-6-0
Immediate Shipment, Attractive Price.

L. A. Green Rail & Machinery Company
1113 First National Bank Bldg., Pittsburgh

RAILS RAILS RAILS

THE MORRISON & RISMAN COMPANY
NEW RAILS RELAY
FROGS AND SWITCHES
TRACK ACCESSORIES
GENERAL OFFICES BUFFALO, N.Y.
HOUSE BUILDING PITTSBURGH, PA.
THE MORRISON & RISMAN CO.
ASK THE ONE WHO OWNS THEM

RELAYING RAILS

2000 tons 56 lb. rail and angle bars
2000 tons 60 lb. rail and angle bars
500 tons 61½ lb. rail and angle bars

We can make immediate shipment of this rail and quote you an exceptionally low price. Please wire for particulars.

The Isaac Joseph Iron Co.
528 Reading Rd., Cincinnati, Ohio

IMMEDIATE SHIPMENT

1000 Tons—80-lb.

Relay Rails and Bars
(ASCE Section)

300 Tons—105-lb.

New Rails and Bars
(Dudley Section)

Duluth Iron & Metal Co.
Duluth, Minnesota

HARRY BENJAMIN EQUIPMENT CO.
725 Central National Bank Bldg.
St. Louis, Mo.

We offer for prompt shipment from stock
50 tons 12-lb. new rail mine lengths.
50 tons 20-lb. new rail mine lengths.
50 tons 35-lb. relaying rail.
200 tons 56-lb. relaying rail.
300 tons 60-lb. ASCE section relaying rail.
100 tons 85-lb. relaying rail.
New spikes and bolts—stock shipments.

SHIPMENTS OF MIXED INDUSTRIAL SCRAP AND RAIL WANTED
WE PURCHASE
Abandoned Plants and Railroads.

Relaying Rails

Immediate Shipment

4000 TON 60 LB.

300 Ton 70 lb. 10 Ton 56 lb.
13 Ton 60 lb. 200 Ton 54 lb.
800 Ton 48 lb.

M. C. Fairchild & Co., Inc.
347 Madison Ave., N. Y.

RAILS

NEW—12 lb., 16 lb., 20 lb., 25 lb., 30 lb., 40 lb.
NEW—60 lb., 70 lb., 75 lb., 80 lb., 85 lb., 90 lb.
RELAYERS—30 lb., 35 lb., 40 lb., 45 lb., 56 lb., 60 lb.
RELAYERS—70 lb., 80 lb., 85 lb., 90 lb., 100 lb.
FASTENINGS—New Bolts Nuts and Spikes.
New Frogs, Switches, Crossing, and All Accessories
Carload and less Carload. Rails cut to lengths for structural purposes.
Attractive Prices.
Immediate Shipments from Stock.

L. B. FOSTER COMPANY
Park Bldg., Pittsburgh, Pa.
Tribune Bldg., 154 Nassau St., New York, N. Y.

RAILS

200 tons 25 lb. Relayers.
200 tons 30 lb. Relayers.
100 tons 35 lb. Relayers.
50 tons 40 lb. Relayers.
50 tons 56 lb. Relayers.
200 tons 60 lb. Relayers.

Write, Wire, or Telephone

H. T. LAMBERT COMPANY
Huntington, W. Va.

I-BEAMS

34—24-in. I Beams 7-in. face—26-ft. to 34-ft. long, as good as new, located Huntington, N. Y.

RAILS

1000 Gross Tons 70 lb. First class relaying rail with angle bars.
2000 Gross Tons 90 lb. First class relaying rail, located in Ohio.
Wire or write for prices.

M. K. FRANK
Frick Building, Pittsburgh, Pennsylvania

STEEL RAILS
AND FASTENINGS

Locomotives, Steam Shovels, Locomotive Cranes, Cars, Railway and Contractors' Equipment

FOR RENT

No. 0 Austin Trencher with crew. Derrick Boat 75 ft. boom, 25 ton lift, triple drum hoister.

E. C. SHERWOOD
50 Church St., New York

FOR SALE

500 tons 100 lb.

RELAYERS

Complete with all accessories. Penna. R.R. Standard.

Equipment Corporation of America
628 Land Title Bldg., Philadelphia, Pa.

New Rails—Relayers

Cars, Locomotives, Steel Products

Send us your inquiries.

MERCHANTS STEEL & SUPPLY CO.
208 S. La Salle St., Chicago, Ill.

IRON & STEEL SCRAP SRS RAILS BILLETS & BARS

STANDARD RAIL & STEEL CO.
1110 Boatman's Bank Bldg., ST. LOUIS, MO.

RE-LAYING RAILS All Weights and Sections
Spikes, Bolts and Accessories
Buy and Sell SCRAP IRON AND STEEL

YOUR RAIL if advertised here, will reach a field of over 30,000 readers including many big **BUYERS**

The List of Purchasers from War Department Sales Reads Like a Blue Book of America's Biggest Business Interests

Nearly one hundred thousand individual orders representing sales amounting to nine hundred million dollars is the staggering total of property disposed of through War Department sales to date.

The buying power of America has responded to these sales in a big way, many of America's biggest business interests looking to them as a regular source of supply.

Thousands of machines purchased through this channel are in operation. Thousands of motors, generators, and other electrical equipment are supplying heat, light and power in every industry. Huge quantities of chemicals have found their way to use through these sales. Thousands of tons of iron and steel from this source have been wrought into every conceivable tool and commodity. Millions of dollars' worth of high-grade wanted materials, supplies, etc., and equipment of every description has reached the consumer's market through regular re-sale channels.

As long as War Department stocks last, opportunities are many.

As a unit of the buying power of American it is to your advantage to follow every War Department offering. Others have benefitted. Why not you?

Read Every Item on the Following Pages

WAR DEPARTMENT
"Surplus Property Sales"

Every Item of

Route This Advertisement Through Your

EASTERN DIVISION

13640

4—Push Carts, No. 12 U. S. Gauge Steel, 109 in. thick, 39 in. long at top, 21¼ ⅛ wide at bottom, 20 in. deep; Capacity 6 ft.
Location—Norfolk, Va.

1084

1275 lb. Dynamite, 40% low freezing.
Location—Norfolk, Va.

19492

450 lb. Dynamite, Dupont Red Cross 40-90 strength, 50 bxs.
Location—New York.

13625

92—Hammers, Riveting, steam operating No. 5 "Little David," chipping and parts.
Location—Norfolk, Va.

14200

9—Hammers, Riveting No. 90 with ⅞-in. button head rivet sets, mfd. by Ingersoll Rand Co.
Location—New York

13631

1—Wright, High Speed Hoist, 4 ton capacity, with 12-ft. lift.
Location—Norfalk, Va.

E-642

29,875 ft. Discharge Hose, 2-in. dia., 4 ply, 25-ft. lengths, coupling and clamps attached.
Location—Pittsburgh, Pa.

E-645

20,400 ft. Discharge Hose, 2-in. dia., 4 ply, 25 ft. lengths, coupling and clamps attached.
Location—Pittsburgh, Pa.

---

100 ft. Air Hose, ¾-in. wire bound.
Location—Pittsburgh, Pa.

E-643

12,500 ft. Discharge Hose, 2-in. dia., 4 ply, 25-ft. lengths. Coupling and clamps attached.
Location—Pittsburgh, Pa.

E-644

37,375 ft. Discharge Hose, 2-in. diam., 4 ply, 25-ft. lengths, coupling and clamps attached.
Location—Pittsburgh, Pa.

E-640

3840 ft. Suction Hose, 2-in. dia., 4 ply, 15-ft. lgths, coupling and clamps attached.
Location—Pittsburgh, Pa.

E-891

2—Steel Structural Shapes, 54-in. 2-ft. x 7-ft. x 4-ft.
Location—Philadelphia, Pa.

E-889

27—Structural Steel "I" Beams, 2½ in. x 4 in. 12 ft.
Location—Philadelphia, Pa.

List Continued

WAR DEP
"Surplus Prop

Pertinent Interest

Organization So All May Benefit

E-614
3,510 ft. Suction Hose, 2-in. dia., 4 ply, 15-ft. lgths, coupling and clamp attached.
Location—Pittsburgh, Pa.

3510
10,686 "I" Beams, 12-ft. lengths, 4-in. width; 7¼ lb. per ft.
Location—New Cumberland, Pa.

E-879
2,360 Structural Steel "I" Beams, 5½-in. x 3-in. 9-ft. long, 5½-in. high, 3-in. wide.
Location—Pittsburgh, Pa.

E-892
1—Steel Structural Shape, 48-in. x 7-ft. x 4-ft.
Location—Philadelphia, Pa.

13667
41—Shelters, corrugated iron metal arch, 32-ft. x 9-ft. x 7-in. x 11 gauge. Elephant type "E." Complete with parts.
Location—Schenectady, N. Y.

E-890
191 Structural Steel "I" Beams, 15-ft. 6-in. long, x 3½-in.
Location—Philadelphia, Pa.

CENTRAL DIVISION

11102
28—Books, level 4½ x 7½.
Location—A. R. D., Columbus, O.

11116
107—Books, handbook of plant construction.
Location—A. R. D., Columbus, O.

3406
5—Logging Carts No. 2, new; wheels 9-in. high; tires 4-in. x ½-in., 8-in. hickory axle tongue, chains and trap hook, singletrees, evener and neckyoke.
Location—Pullman, Ill.

C-67
1—Pile Driver, portable compound gas engine and hoist, Class "A."
Location—A. R. D., Columbus, O.

On Next Page

MACHINERY AND ENGINEERING MATERIALS

LIST NO. 13

Sale by Negotiation

HOW TO ORDER

All orders and negotiations for materials offered in this list must be addressed to the Depot Quartermaster of the division where material is located. These divisions and the addresses of controlling offices are given below. To obtain a complete list of materials not listed in this advertisement, clip and mail the attached coupon.

LIST OF DIVISIONS AND CONTOLLING OFFICES

EASTERN DIVISION
59th St. and 1st Ave.
Brooklyn, N. Y.

CENTRAL DIVISION
1819 West 39th St.
Chicago, Ill.

SOUTHERN DIVISION
Transportation Bldg.
Atlanta, Ga.

SOUTHWESTERN DIVISION
San Antonio, Texas

NORTHEASTERN DIVISION
Army Supply Base
Boston, Mass.

COUPON

Chief, Sales Promotion Section, Office of the Director of Sales, Room 2515, Munitions Building, Washington, D. C.

Important
Mail Coupon to This Address

Kindly send M. & E. M. List No. 13 in its entirety .....

Firm Name .....

Street Address .....

City ..... State .....

Signed by .....

Engineering News-Record

ARTMENT
erty Sales"

MACHINERY AND ENGINEERING MATERIALS
LIST No. 12 (Cont'd)

15692

27—Drawing Boards with trestle; 23-in. x 31-in.
Location—Columbus, Ohio

11985

5—Winches, hand, single drum 6-in. x 20-in. bbl. raybestors lined brake with safety strap; double purchase.
Location—A. R. D., Columbus, O.

SOUTHERN DIVISION

S. E. 250

1—Hoisting Engine, upright, Class "B" 30-in. x 5-ft. 6-in.
Location—Oteen, N. C.

S. E. 249

2—Concrete Mixers, Ransome, Class "B."
Location—Oteen, N. C.

S. E. 110

2504 Unions Special. Bet N, Class "R."
Location—Atlanta, Ga.

S. E. 101

203 lb. G. I Wire, No. 5, Class "A."
Location—Atlanta, Ga.

S. E. 100

189 lb. G. I Wire, No. 7, Class "A."
Location—Atlanta, Ga.

Additional Items from
MACHINERY AND ENGINEERING MATERIALS LIST No. 13
To Be Sold By Negotiation

Aneriod Barometers
Cannister Bottoms
Compass Boxes
Ratchet Braces
Brass Grommets
Brass Fasteners
Brass Hock Parts
Brass Loops
Brass Rivets
Brass Slides
Brass Studs
Brass Washers
Lead Covered Cable
Telephone Cable
Cable Releases
Calipers
Canvas, O. D.
Compass Watches
Condensers
Reducer Connections
Conveyors
Cylinders
Duck, O. D.
Steam Engines
Gas Mask Eye Lenses
T.N.T., Cylindrical
Trench Fans
Flashlights
Fuses
Fuse Dust
Generator Sets
Expansion Joints
Electric Knives
Metal Forming Machines
Machine Check Writers
Motors
Cannister Nozzles
Oil for Break Switches
Loom Oil
Lard Oil
Quenching & Tempering Oil
Pipe Fittings
Nipples
Malleable Pipe
Sewer Pipe
Signal Plugs
Galvanized Bit Plugs
Steel Springs
Switch Boards
Rubber Tape
Cannister Tops
Tripods for Heliographs
Wrist Watches
Barbed Wire
Plain Copper Wire
Weaving Wire
Differential Cap Pulleys
Resonators
Heavy Wire Screens
English Screws
Shanks for Indicator Posts
Steel
Bar Steel
Structural Steel
Wrought Iron
Angle Posts
Screw Posts
Galvanized Rods
Crucible Tool Steel
Steel Hoops
Strip Steel
Tool Steel
Air Tanks
Galvanized Iron Tanks
Vertical Tubular Boilers
Beaded Edge Casings
Zincographic Chests
Chief Operator's Desks
Motor Fuses
Meat Grinders
Knife Grinding Machines
Gum Box Board
Hob Nails
Engine Lathes
Motors for Grinders
B. T. Boilers
Cavalry Plastrons
Boiling Plates
Screw Plates
Stocks & Dies
Coupling Poles
Payout Reels
Relay Racks
Hand Rip Saws
Spare Parts for Steam Engines
Buffalo Shears
Flagstaffs
Tanks, Wood
Film Tanks
Storage Tanks
Boilers and Covers
Cold Rolled Steel
Oil Reclamation Plants
Wire Firing Reels
Anti-Dimming Outfits
Very Pistol Shells
Bicarbonate of Sodium
Sulphur
Rubber Outlet Valves
Expanded Metal Sheets
Cement Glue
Litharge
Respirators, Horse
Warning Signals, Gas
Trench Sprayers
Rubber Tubing
Wire Outlet Valves
Horseshoe Nails

SURPLUS PROPERTY BRANCH
Office of Quartermaster General
Munitions Building, Washington, D. C.

WAR DEPARTMENT
"Surplus Property Sales"

OIL STORAGE TANKS

Twenty-five Oil Storage Tanks ready for immediate delivery

Size 10-ft. 6-in. x 29-ft. 5-in. long, ¼-in. material throughout; 18-in. dia. manhole, capacity 19,200 gallons. Built to Standard Oil specifications. Prices quoted on application.

We are located on the Pennsylvania system, with direct connection to Western Maryland., Norfolk & Western and B. & O. R. R.

New York Central Iron Works Company, Inc.
***Main Office:* Hagerstown, Maryland**

SALES OFFICES:
30 Church St., New York — 1023 Widener Bldg., Philadelphia — Builders Exchange, Baltimore

---

FOR SALE

Trench Machine

PARSONS

Size 78, overhauled. $2,200 F.O.B. car. With parts.

FS669 Eng. News-Record
1570 Old Colony Bldg., Chicago, Ill.

FOR SALE
TRENCHING MACHINE
Parsons—Large Size
TRENCHING MACHINE
Potter
For Immediate Delivery
JOHN B. McLANE & COMPANY
Newport Kentucky

FOR SALE
Special Offer
Angles, Channels and I-Beams
at 3½c. lb., from stock. Rods, 4c. lb
MARYLAND PIPE SUPPLY COMPANY
Hagerstown, Md.

---

450 Tons I-Beams, Channel Iron and T-Bars
Second-hand, excellent condition at a very low figure.
BRENNER & MICHAELSON
Richmond, Va.

AIR COMPRESSOR—BARGAINS
1—385 cu. ft. per min. (12 x 14¼ x 14) Ingersoll-Sergeant, straight line, steam driven, Class A.
1—396 cu. ft. (12 x 14 x 9 x 14) Sullivan, straight line, steam driven.
1—498 cu. ft. (14 x 16¼ x 18) Ingersoll-Sergeant, straight line, steam driven, Class A.
1—596 cu. ft. Ingersoll-Rand, straight line, steam driven, Class A.
1—1596 cu. ft. Ingersoll-Rand, straight line, steam driven.
STEAM HOISTS & PUMPS
8—7 x 8 and 8 x 8 Single cylinder, geared with cone friction, drum 20 in. dia. by 14-in. face, in fine condition, a bargain.
1—10 x 6 x 12-in. Gardner, Special Duplex, slush pump (pot valves), capacity 290 gals. per min., nearly new.
2—10 x 6 x 10 Worthington, regular duplex pump.
2—7½ x 5 x 6 Scranton, regular duplex pump.
3—6 x 4 x 6 Gardner and Scranton regular duplex pumps.
JOPLIN MACHINERY & RENTING CO.
301 Virginia Ave., Joplin, Mo.

Contractors' Plant

FOR SALE

Floating and Land Pile Drivers.
Hoisting Engines, 7 in. x 10 in.
Rock Crusher, 11 in. x 22 in.
Diving Outfits.
Orange Peel Buckets, ¾ yd.
Concrete Mixer, ¾ yd.
Derricks, Stiff Leg and Guy.
Miscellaneous.

Send for Revised Price List

JARRETT-CHAMBERS CO.
30 East 42nd St., New York City

For Sale at Bargain Price

STEEL DERRICK

90 foot boom; 20 foot extension if desired. Thomas Elevator Hoist Chain Drive by 55 hp. motor, 62 inch Cutler-Hammer Magnet.

Derrick can be inspected operating at our yard.

Kammer, Friedman & Co.
3018 E. 55th St., Cleveland, Ohio

FOR SALE
Buckets Boat. Drill Steels Air Engines Horizontal Engine. Fans — Sirocco. Oil Separator. Pipe. Pumps Stack.
HAROLD CARPENTER
Resident Engineer, Astoria Light, Heat & Power Co.
130 East 15th St., New York City.

THE CURTISS-WILLIS CO., Inc.
No. 30 Church St., New York
LARGEST EXCLUSIVE DEALERS IN
USED AND NEW TANKS
We Make Lower Prices

STEEL PILING

600 pcs. 7 in., 14 ft. long.
900 pcs. 12⅝ in., 20 ft. long.
500 pcs. 14 in., 25 ft. long.

Immediate delivery.

MERCHANTS STEEL & SUPPLY CO.
208 S. La Salle St., Chicago, Ill.

STEEL SHEET PILING

Lackawanna 14-in. Arch Web.
82 pieces 30 ft.
200 pieces 45 ft.
60 pieces 42 ft.
18 pieces 38 ft.
18 pieces 34 ft.
15 pieces 19 ft. to 21 ft.
50 pieces 12 ft. to 19 ft.

Delivery from New York City

BROWN & SITES CO.
30 Church St., New York
Telephone Cortlandt 1190

HEAVY DUTY PUMP

For immediate delivery, we can offer one Terry Turbo Centrifugal Pump type "two stage" 6 in. suction and 5 in. outlet—capacity 660 gals. per minute against 415 ft. head—practically new.

The Stamsocott Co.
Hopewell, Virginia

We specialize in
STEEL PILING

Buying and Selling
Wire or write your requirements.

ZELNICKER IN ST. LOUIS

FOR SALE
SHEET STEEL PILING
Lackawanna 14-in. Arch Web: 134 pieces 30 ft.; 43 pieces 20 ft.; 27 Corner Pieces, at Detroit; 375 pieces 10 ft. straight web 7-in. x ⅛-in. at Buffalo; 400 pieces 12¾-in. x ⅜-in.—20 ft., Chicago District.
UNIVERSAL EQUIPMENT COMPANY
Niagara Falls, N. Y.

The Slaughter of the Innocents

WHEN JESUS CHRIST came upon the earth, nearly two thousand years ago, to save all mankind, his mere coming seemed to interfere with the material interests of a few people of that period, notably King Herod, who promptly decided to dispose of this "interloper," and sent forth his soldiers with orders to slay all the children of two years old and under. Thus was consummated the most atrocious crime against innocent childhood ever committed up to that time. It has come down to us through all the ages in song and story, and master painters have pictured it on marvelous canvases.

To-day passing in review, as we look out through the windows of our comfortable homes in this great and happy land, are three and a half millions of helpless children, the innocent victims of the greatest war that has ever afflicted humanity. It matters not, as we gaze in the direction of these children, that our eyes must stretch across three thousand miles of ocean, we still can see them and we still can hear them, if we wish to do so; and we can not help hearing the tragic appeal in their voices and seeing their tiny arms stretched out to us, and their searching eyes looking into our souls, as they say, "Help us, or we perish." And if we fail to listen to this great call of three and a half millions of God's helpless children; if we close our eyes and ears to this great demand of duty, we will be just as guilty of the "slaughter of the innocents" as was Herod, nearly two thousand years ago.

In these lands, swept by death and filled with tragedies too deep for tears, a sum of human suffering is being written greater perhaps than for all ages gone by. The mind grows numb and the heart sick from a constant recital of tales of such tragedy as it is difficult to believe the twentieth century could hold.

And so, when the call for help came from Mr. Hoover telling that America must not allow hunger and cold to return to this mass of 3,500,000 helpless children the soul of America was stirred and the hot blood surged up in our hearts. It is our imperative duty to use all the power God has given us to aid this noble-hearted American in continuing the work of saving human lives to which he has devoted unsparingly, and at great personal sacrifice, his tremendous energy and administrative genius during the past six years, in which time he and his American colleagues have administered two billions of dollars of relief funds from all parts of the world with a total overhead expense of only three-eighths of one percent., without any remuneration to the American directors. Now he asks us all to help save the children who are in imminent danger of starvation this coming winter.

There they are, in the midst of wrecked homes, and farms, and factories; in cities crowded with masses of refugees without sustaining food for children, through the destruction of live stock; seeds for planting, raw materials, tools, and machinery gone; great areas with everything burned, or looted, or smashed; vast unemployment for workers; no means of subsistence; a land of economic ruin, of mutilated life, and lingering death; and in the midst of it all —the little children.

In long lines they are waiting at the American food-kitchens. Will the food be there for them? Will they be turned away? There are no happy, healthy faces in those long lines—not one. You have seen rags and barefooted children, but never so many little boys and girls literally drest in tatters. They are facing a winter of devastating cold, and for those bare little feet and legs and arms there is nothing at home to put on.

Hollow faces and shrunken bodies are so common that their real conditions does not become evident until we inquire more closely, and then we find that most of them are from one to five years back in their growth. Children of eight years old have not reached the normal size of two and a half. They are just learning to stand alone. Others almost as old can not yet stand on their feet. Their arms, and legs, and spines, and chests are twisted and warped. The flesh and skin are shriveled on their bones. It is surprising that life can still exist there. If they can have food they will gradually regain their health and strength, but with most of them it is a question of now or never. Starvation and tuberculosis will not wait.

In Poland alone a million five hundred thousand such children must be cared for. In Latvia and Esthonia the people are living mostly on a diet made from potato-flour, oat-flour, and sawdust. In Czecho-Slovakia, in Hungary, in Austria, and in other countries of central and southeastern Europe, two millions more are n dire need of food; and who stops to ask regarding creed, or race, or nationality when a little child is starving? Children are just children the world over, and the great American heart is big enough to care for them all.

But the appeal now is not for all. The three and a half millions of children in immediate danger of starvation, if this organization fails, who *must* have food at once, are only a fraction of the total number. The hungry children of those destitute countries have been examined by competent physicians, and only those whose wasted little bodies are reduced to the minimum weight, and whose endurance of hunger has reached the end which merges into actual starvation, are admitted to the American kitchens and given *one meal a day*. It is hard to turn away thousands of hungry boys and girls—to hear them ask, pleadingly, "Do I weigh too much?" "Am I not thin enough?" "Can't I come any more?" But this restricting of food to the extreme cases is compulsory, because there isn't enough for all.

And these neediest ones can not reach the kitchens through the cold winds and the snow barefooted and in the pitiful rags which form only a partial covering for their bodies. They must have clothes. Each outfit consists of one pair of warm woolen stockings, one pair of boots, and a little overcoat. This one meal a day, and these boots, stockings, and little coat can be supplied *only if we give them*. If we do not, the slaughter of the innocents by cold and starvation will be appalling.

Among those who will read this page there is not one—there can not be a single one—whose heart will not respond gladly and eagerly to the challenge of this great need. We are asking *you* to cooperate with Mr. Hoover in raising twenty-three million dollars to feed and clothe these children and save them from death this winter. It can be done. It shall be done! This publication knows its readers and the deep earnestness, the quick sympathy, the great-hearted generosity they always show when any real human need calls to them. You have never been called upon in vain. We are counting on you now with a great confidence. We know, also, how truly you represent the American spirit, which beats in the hearts of over a hundred million people in this big land of plenty, a spirit which leaps ready at every such call, and is never weary in well-doing. We are not a hermit nation, isolated from the world, when suffering and want cry out to us from anywhere under the sun. A great, a beautiful, and heart-sustaining hope supports these stricken people—*America will come to their relief*. For in the far places of the earth, where famine stalks, one name and one alone is synonymous with rescue and hope—and that name is America.

The small individual unit of ten dollars will provide the coat and boots and stockings and one meal a day for one child this winter. We urge our readers—we urge *every one* whose eyes are on these words—to give quickly as many of these units as possible, to buy **for themselves that precious and priceless thing, the live of a little child**—as many of them as they can, and everyone will be a shining star in an eternal crown. It was the Divine Lover of little children, who came to earth as a little child, and who reigns now as the King of Glory, who said, "Inasmuch as ye have done it unto one of the least of these, ye have done it unto me." He does not forget, nor fail to reward.

Mr. Hoover, Chairman of the European Relief Council which has been organized to spread this great need before the American people, is asking twenty-three millions to save the lives of these little innocent children who are facing death. This European Relief Council includes among its workers the following organizations—American Friends' Service Committee (Quakers), American Relief Administration, Jewish Joint Distribution Committee, American Red Cross, Knights of Columbus, Federal Council of Churches of Christ in America, Y. M. C. A. and the Y. W. C. A. These organizations, led by Mr. Hoover, are banded together in this great cause for humanity to redeem the little lives and save the terrible toll of tiny graves by the hundred thousand.

Let us all see again what the Father's heart is like in this great rich land of America. Let us spring to the rescue, as true Americans always have done, and contribute to the extent of our hearts—for never was a need more urgent or help wanted more quickly.

Make your check payable to Franklin K. Lane, Treasurer, and mail it to the European Relief Council, 42 Broadway, New York City. Every dollar will go toward the purpose for which you give it without one penny deducted. Give, and give *now*.

While Business Lags Recover Your Sanity

You have been "off your base" in the hurly-burly of the last few years.

"Sound asleep" as it were.

Hurting yourself in your sleep more than you yet realize.

You were "crazy" enough to think we were crazy in our manner of getting the Ridgway Elevator to market. But there was method in our madness.

We offered this Wonderful Elevator to you Engineers and you laughed us out of your office.

"Young man if that was a good thing it would have been in use years ago," is what you said.

Then we went to the Mill Owners and got in our elevators in spite of you by almost giving them away.

And today over 3000 of the Greatest Concerns in the land are shouting the praises of the Ridgway Elevators——Concerns like this sample 21 for luck.

United Gas Improvement Co.	Procter & Gamble Co.	Crane & Co. (Dalton)
	H. J. Heinz Co. "57"	United States Government
Yale & Towne Mfg. Co.	International Harvester Co.	E. I. Du Pont & Co.
Cluett, Peabody & Co.	John Wanamaker	General Electric Co.
Consolidated Gas Co.	Remington Typewriter Co.	Packard Motor Car Co.
National Cash Register Co.	Continental Gin Co.	Continental Can Co.
Hammermill Paper Co.	Erie Railroad Co.	American Tobacco Co.
		John Morrell & Co.

Yes I know there are far more than 21. That is what the trade will say too.

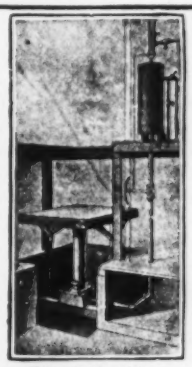
Penna. R. R.	Gen'l Refractories Co.	Merrimac Chem. Co.
N. Y. Central R. R.	Michelin Tire Co.	Lukens Steel Co.
New York World	Am. Hard Rubber Co.	Congoleum Co.
Diamond Match Co.	U. S. Rubber Co.	Chicago Mill & Lumber Co.
Am. Smelting & Refining Co.	B. F. Goodrich Co.	Swift & Co.
	Midvale Steel Co.	Remington Arms & Am. Co.
Strd. Underground Cable Co.	American Pulley Co.	Spanish River Paper Co.
	Lowell Bleachery	

And so we say you are "crazy" in the face of a showing like this to hit your business a slam in the face by giving a client with steam Electric Elevators when he can

"HOOK 'ER TO THE BILER"

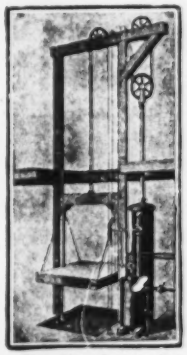
CRAIGE RIDGWAY & SON CO., Coatesville, Pa.

ELEVATOR MAKERS TO FOLKS WHO KNOW

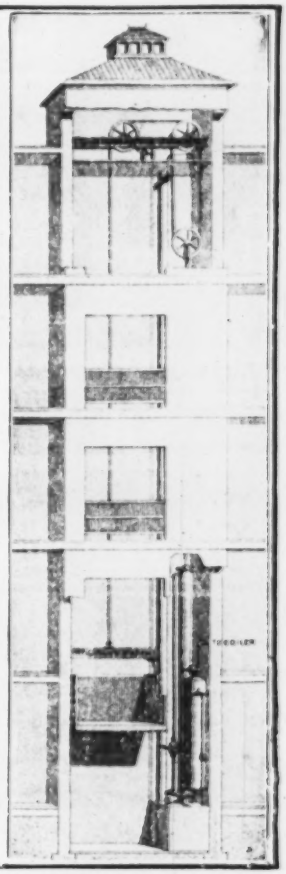


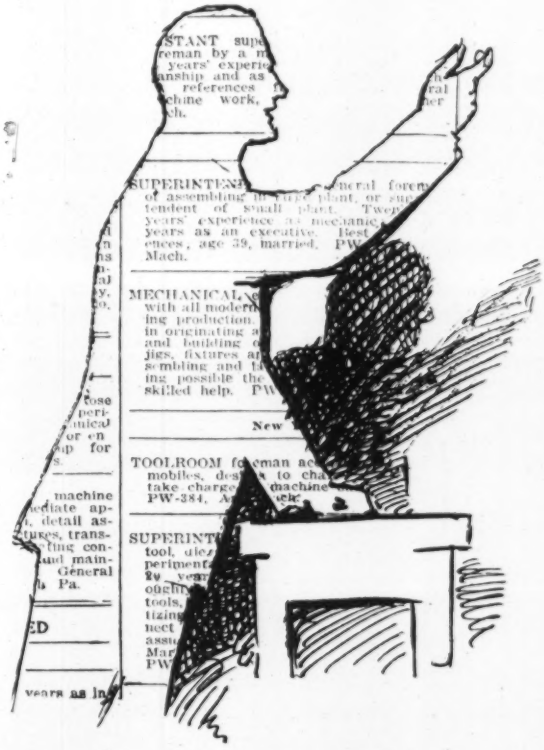
Direct Acting

Over 2,000 In Daily Use



Double Geared





"SEARCHLIGHT" Want ads Talk—

They go direct to those in the industry you wish to reach and tell your story in a forceful and business-like way.

They don't mince words but get right to the point.

Use them for—

Agencies Wanted	Industrial Sites
Agents Wanted	Labor Bureaus
Auction Notices	Machine Shops
Bids Wanted	New Industries Wanted
Books and Periodicals	Partners Wanted
Buildings For Sale	Patent Attorneys
Business Opportunities	Patents For Sale
Civil Service Opportunities	Plants For Sale
Contracts to be Let	Positions Vacant
Contracts Wanted	Positions Wanted
Desk Room For Rent	Proposals
Desk Room Wanted	Property For Sale
Educational	Receivers' Sales
Employment Agencies	Representatives Wanted
Foreign Business	Salesmen Wanted
For Exchange	Specialties
For Rent	Sub-Contracts Wanted
Franchises	Water Front Property
Help Wanted	Work Wanted

Miscellaneous for Sale, for Rent or Want Ads

For Every Business Want "Think* SEARCHLIGHT *First"

0144

GEAR AND FRICTION DRIVEN GASOLINE LOCOMOTIVES—2½ TO 25 TONS ON DRIVE WHEEL

WHITCOMB LOCOMOTIVES

IT WILL PAY YOU TO GET OUR PROPOSITION BEFORE YOU BUY

GEO. D. WHITCOMB CO.

MAIN OFFICE AND WORKS

ROCHELLE, ILLINOIS U. S. A.

STORAGE BATTERY LOCOMOTIVES—1 TO 8 TONS ON DRIVE WHEELS

HOLT PEORIA-STOCKTON

Snow Removal with CATERPILLAR TRACTORS

"Caterpillar" Tractors were selected for snow removal work by the New York City Engineers because of their endurance, power and traction. This winter, in the congested business districts of lower Manhattan, the traffic will be kept open and fire danger prevented from ice and snow covered streets.

New York City Purchased 50 "Caterpillar" Tractors.

Street Cleaning Departments, Township, County and State Highway Officials, Public Utilities and Industrial Plants can depend on the "Caterpillar" for snow removal. It solves this problem as thoroughly as it does in road building, lumbering, agricultural and industrial service.

Write for Bulletin on "Snow Removal."

The HOLT Manufacturing Company Inc.

Peoria, Illinois

Spokane, Wash. New York Office, 50 Church St.
Factories at Stockton, Cal. and Peoria, Ills.

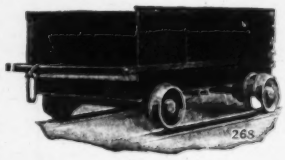
There is but one CATERPILLAR—HOLT builds it.

Specialists
in the
DESIGN AND MANUFACTURE
of

Standard—Insulated Compromise Rail Joints

THE RAIL JOINT COMPANY
61 Broadway, New York City

EASTON CARS



Skip cars for any purpose and to meet any conditions—this type but one of a hundred or more kinds of industrial cars for every service.

Tell us what you move.

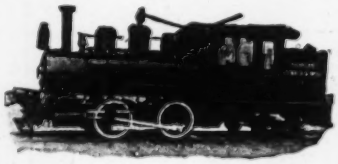
EASTON CAR & CONS'TN CO.

48 Church Street, New York Works: Easton, Pa.
New York Boston Chicago Detroit Pittsburgh Philadelphia

BURTON
GASOLINE
LOCOMOTIVES

3½ and 6 Tons
Any Gauge Track
Haul It Economically
Send for Bulletin

The Burton Engineering & Machinery Co.
Cincinnati, Ohio, U. S. A.



All sizes and types of light steam

LOCOMOTIVES
LOCOMOTIVE CRANES

Davenport Locomotive Works
Davenport, Iowa

PLYMOUTH
Gasoline Locomotives

Take the Burden of the Haul

The first big cost that confronts is the transportation of materials—whether in the rough or finished product.

Coal and ore must go from vein to shaft.

Big timber from stump to mill.

Bulky cane from field to rolls and refinery.

Loosened earth from excavation to fills or dumps.

Road materials must follow workmen along the stretch of completed highway.

Mud and refuse must go from dredge to discard.

Stone from quarry to point of shipment.

Clay and marl from pit to pulverizer.

Bulky materials in the work must be taken from plant to plant.

No Matter What The Problem

No matter what the enterprise or industry, if haulage is a problem, then the Plymouth is the solution.

The Plymouth Gasoline Locomotive is the pioneer in industrial haulage. It has been the color-bearer for a score of years. It is the pace-maker with more speed, more power and more years of service.

Have you a haulage problem? Do you want to do more work for less cost and more profit? Do you want a way out of the lack of men and teams?

Then adopt the Plymouth way. Let the Plymouth take the grief and burden. Investigate now.

Our Engineers are at your service.

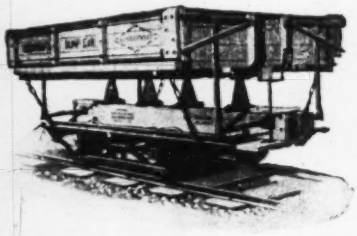
Our bulletins are full of industrial information and haulage solutions.

Write for them.

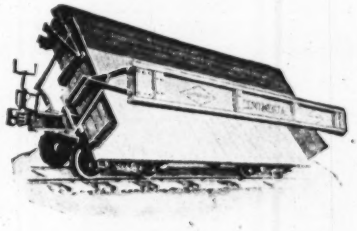
The FATE-ROOT HEATH CO.

233 RIGGS AVE.

PLYMOUTH, OHIO



CONTINENTAL



"Built stronger to wear longer"

Continental Dump Cars Are Standard Equipment

The engineering department of the Continental Car Co. are never satisfied. Their every thought and experiment is striving for a still better construction. Further, these experiments are not made at the expense of our customers.

The result is that the Continental Dump Car represents all that is efficient and is a splendid example of over-values.

SEND US YOUR REQUIREMENTS.

CONTINENTAL CAR COMPANY OF AMERICA

Incorporated

LOUISVILLE, KENTUCKY

Contracting for Profit

Profit in Contracting depends upon efficiency.

The American "Gas-O-Motive" speeds up the equipment and the organization.

Built extremely staunch it is impervious to hard usage of contracting gangs. It stands up under even unfair treatment.

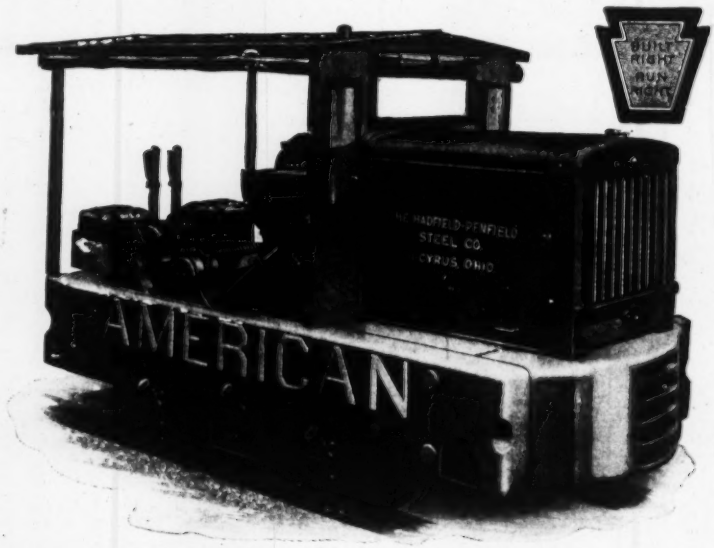
It is always on the main track working. Never on the side track for tinkering or tampering.

Simple in design it is safe in the hands of even an incompetent.

Quick in action, it is here, there and everywhere doing the work of two ordinary locomotives.

Ample Built In stress factors equip it for heavy work and keep it at it. Continuous service invited.

The American is Friction drive. Hercules motor. Efficient cooling system. Telescopic coupling in transmission housing. Self-aligning Axle. Direct full vision ahead. Drive chain run in oil. Positive 4-wheel sander. Parts accessible.



The American Gas-O-Motive represents an investment costing you 50 cents a day; it would be worth many times that to you.

Built in several sizes. Get specifications, price and delivery.

The Hadfield-Penfield Steel Co., Bucyrus, Ohio, U. S. A.

Locomotive Sales Dept., 404 Hippodrome Bldg., Cleveland, Ohio

VULCAN

Five winters of contracting work without a breakdown—even in the coldest weather.

The record sheets on this VULCAN Locomotive show that it hauled 2,000,000 cubic yards of dirt in the two and one-half years, or slightly more than 2400 cubic yards per day with an average of 32 trains and a total daily run of nearly sixty miles. A typical VULCAN record.

VULCAN IRON WORKS

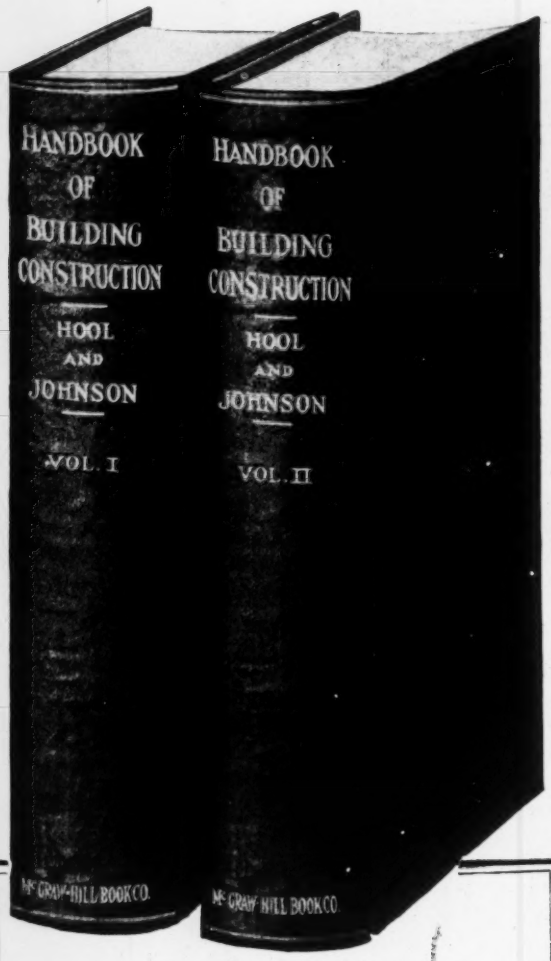
Established 1849

1737 Main Street, Wilkes-Barre, Pa.

Vulcan

Locomotives

VULCAN



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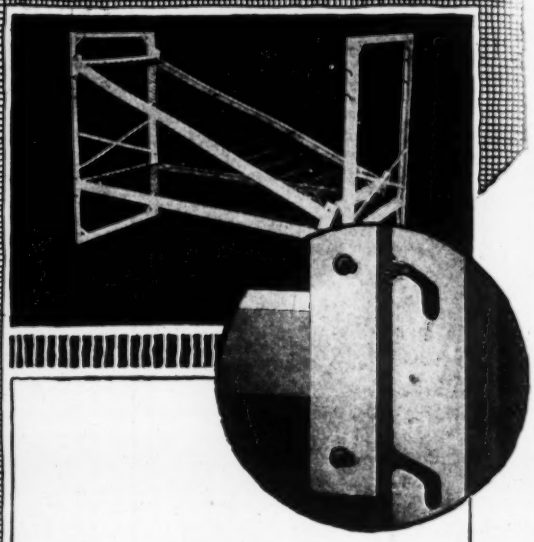


Economy

Contractors are finding it economical to put in the new Romelink "99" bunk, because it is permanent.

The unique double-locking button system of the "99" bunk does away with supports and braces, the weakness of the old-style knockdown. Any husky can slide the four pieces into place in a moment and the whole bunk immediately locks with absolute rigidity. No amount of hard usage will affect it. Nine men were crowded on a double-tier Romelink "99" at our shop. There was neither sag nor sidesway, just absolute rigidity.

When you are set for the next job, the "99" is ready to go along with you. Equipped with the Romelink sagless, rustless spring-fabric, it stands up under years of usage and proves its ultimate economy in dollars and cents.

Railroads and contractors are installing this new system. Write for detailed information.

Southern-Rome Company

Branch of
Rome Metallic Bedstead Company
633 West Pratt Street,
Baltimore, Maryland

ROME LINK "99"

SAVE
Your Macadam Roads

You who have the power to determine the character and cost of street and highway improvement can effect big savings for the taxpayer by salvaging the best of the old waterbound macadam pavements.

A two inch asphaltic macadam surface will adequately prepare many thousands of miles of old macadam highways for the heaviest modern traffic.

There are, in this country, other vast stretches of valuable base which need only to be reshaped and consolidated in preparation for the application of a splendid wearing surface of asphalt.

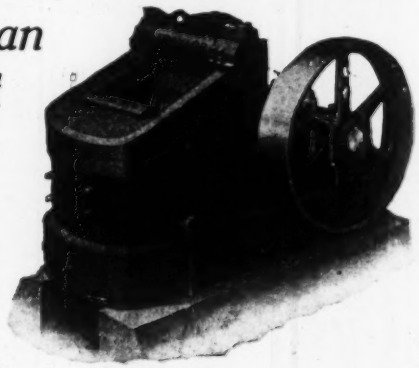
In extreme cases the macadam material will at least serve as a portion of the foundation.

Write for Brochure on Salvaging Old Pavements.

THE ASPHALT ASSOCIATION
25 West 43rd Street, New York City
CHICAGO TORONTO

ASPHALT
Proved through the Ages

Traylor "Bulldog" Jaw Crushers Mean a Saving at Any Crushed Stone Plant



One method of designing crushers is to make them so massive throughout that it is practically impossible for them to be subjected to strain. Yes, they crush but the cost of operation is terrific.

Traylor Engineers strove to design the lightest yet the strongest crusher possible, that's why the frame of every "Bulldog" Jaw Crusher has a steel band shrunk on it top and bottom and all are equipped with the "Bulldog" Toggle system, the pitman of which is by far the lightest yet strongest of its kind being made of wrought-steel tension members.

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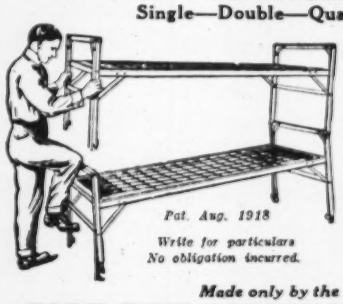

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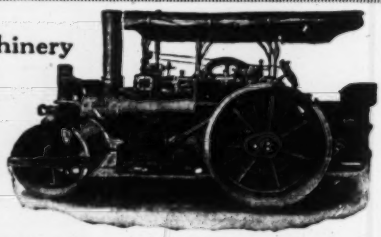

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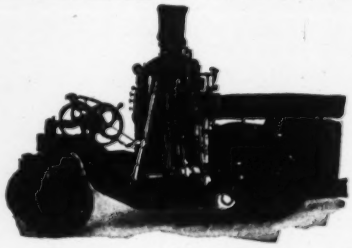

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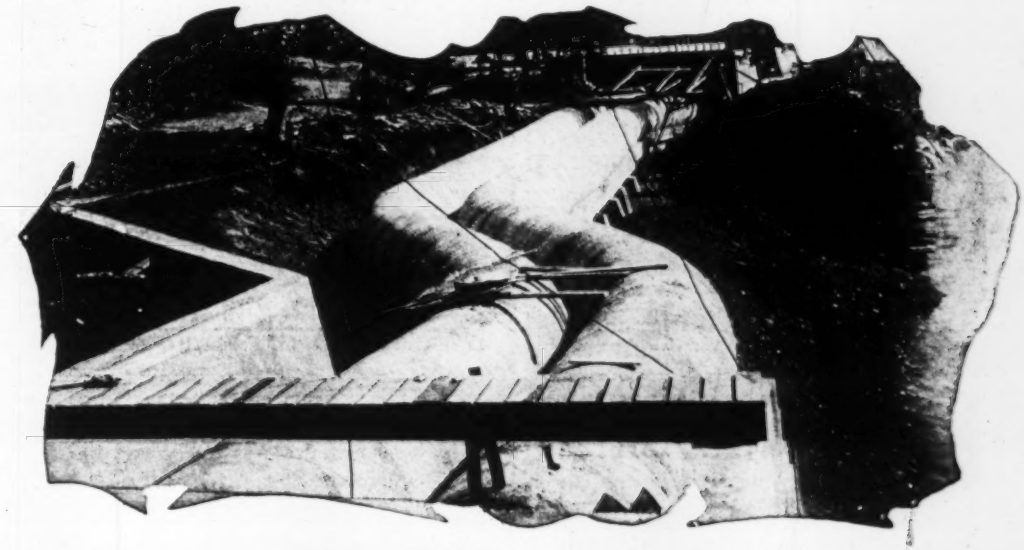

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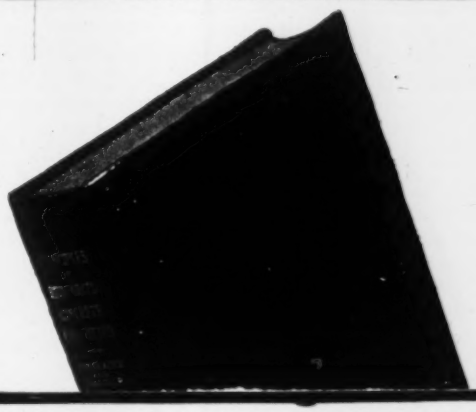

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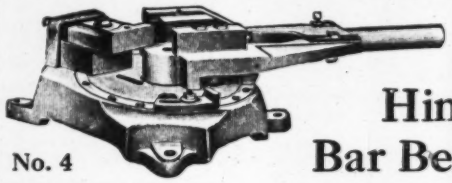

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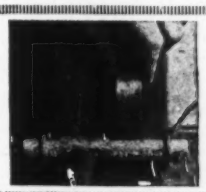

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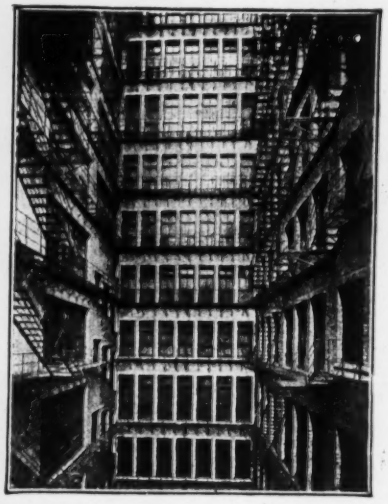

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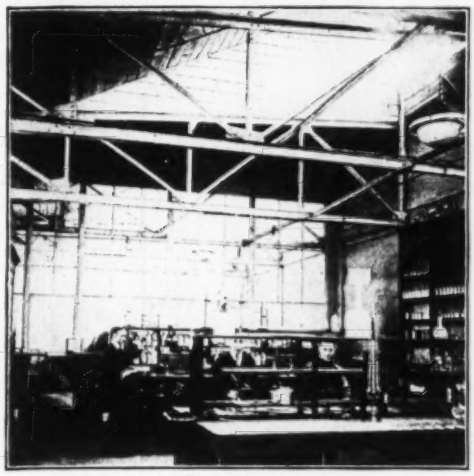

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These savings as well as the improved working conditions should appeal to you. Hand or power operated.

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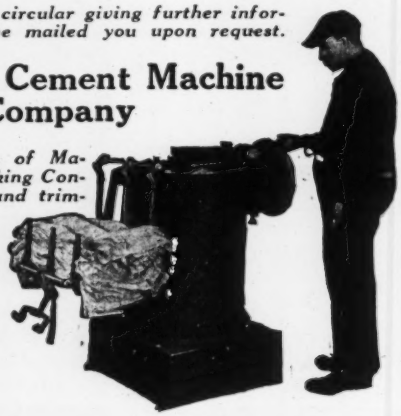
Manufacturers of Machines for making Concrete Blocks and trimming stones.



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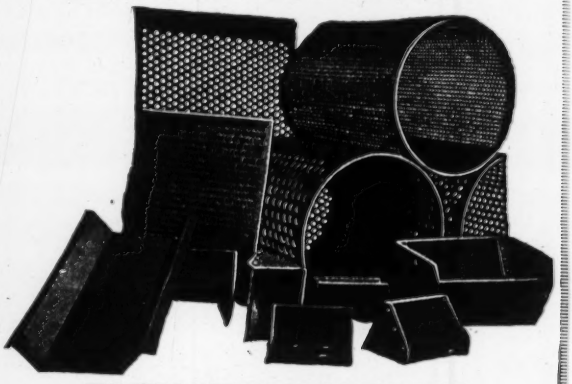

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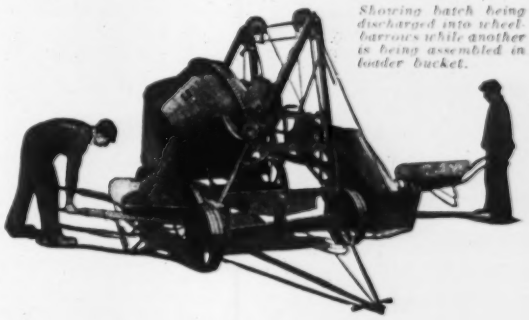

Showing batch being discharged into wheelbarrows while another is being assembled in loader bucket.

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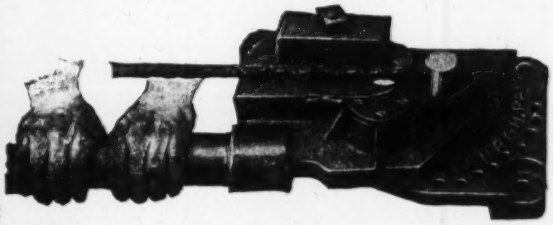

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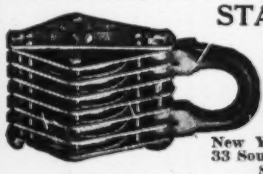

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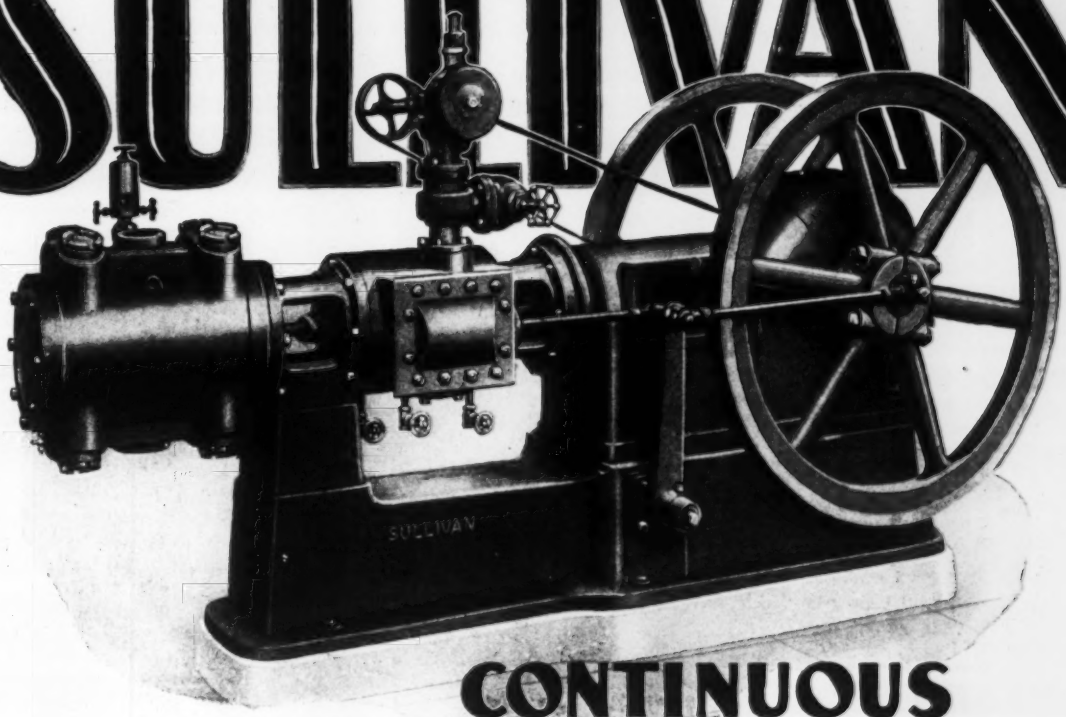

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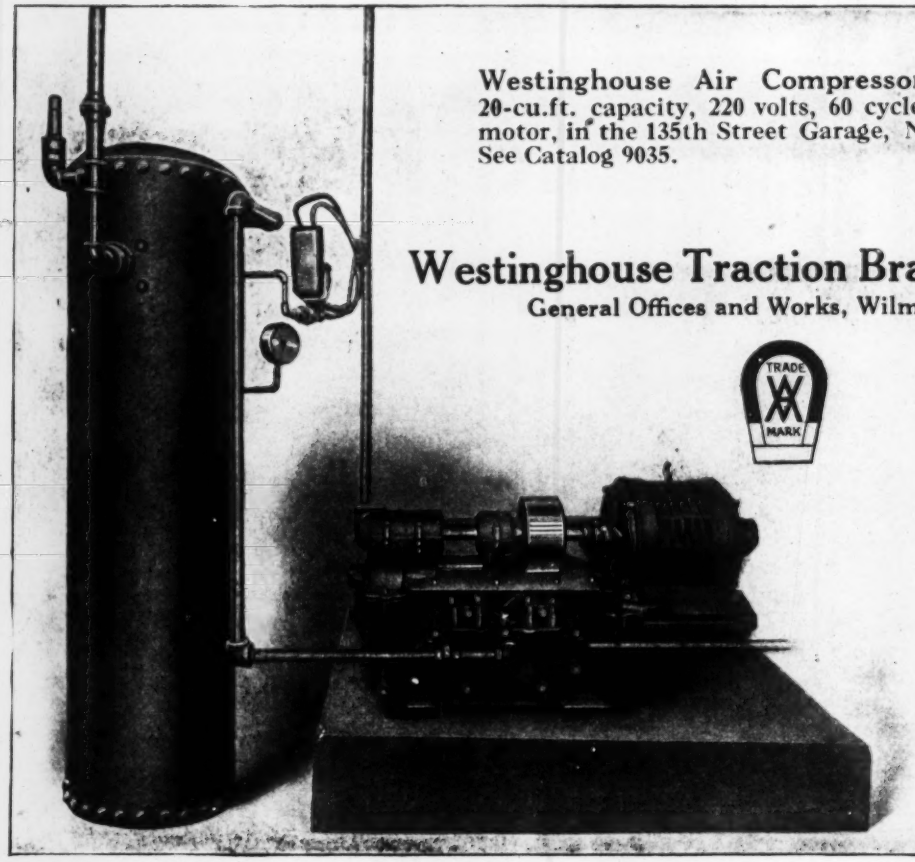

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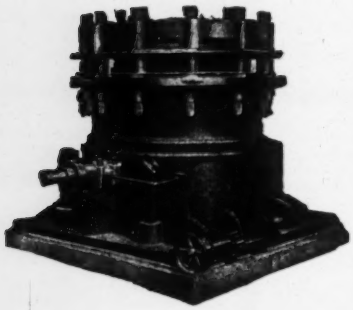
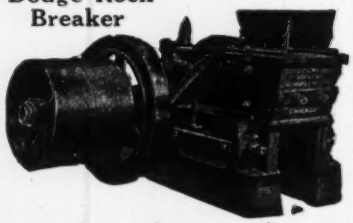
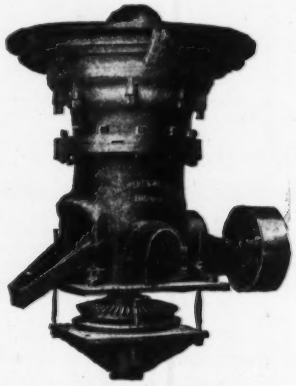


Dodge Rock Breaker





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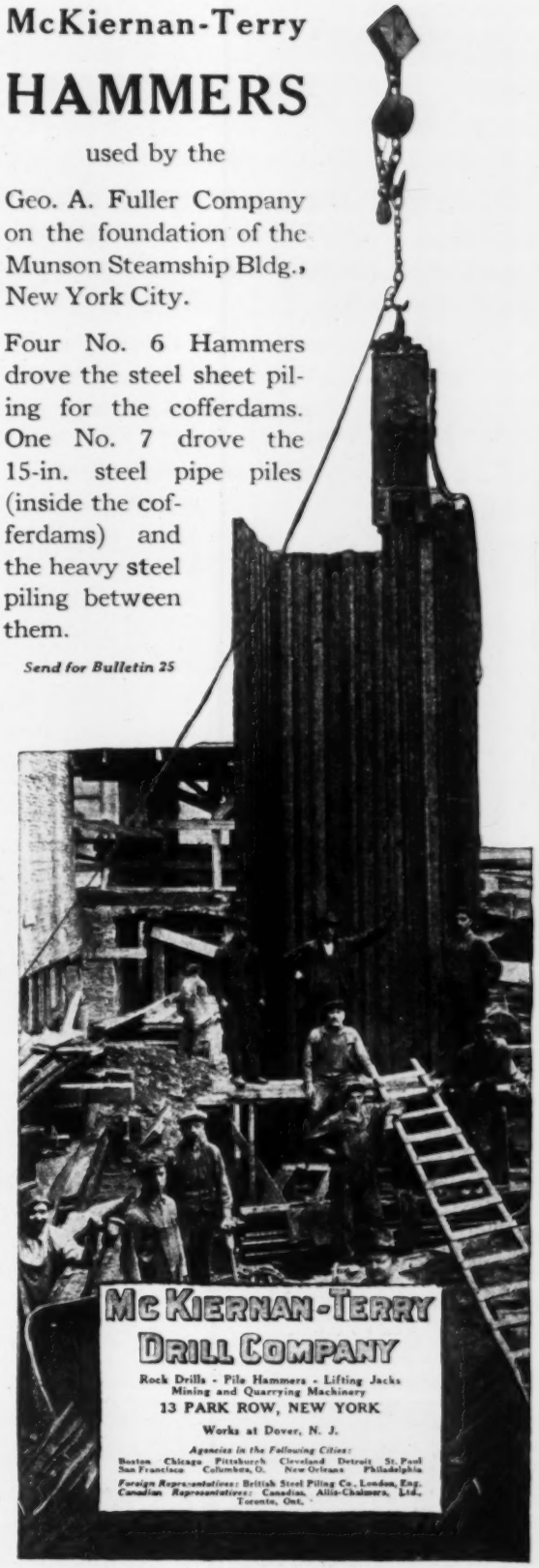

The Daily Grind

of a rock crusher is measured by the capacity per hour in relation to its power consumption and other operating costs. Operators, large or small, who plan to increase their output along the most scientific lines will thus arrive at the most efficient crusher on the market—the "HERCULES."

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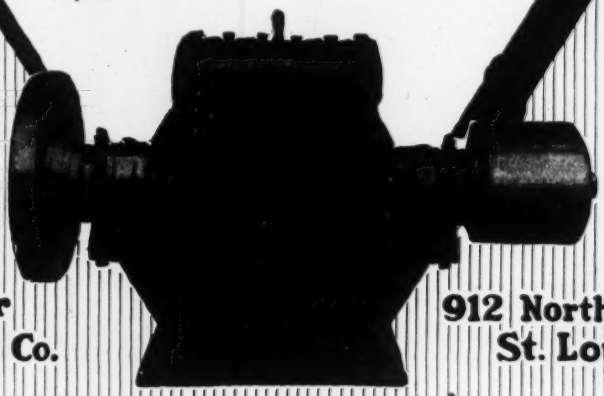

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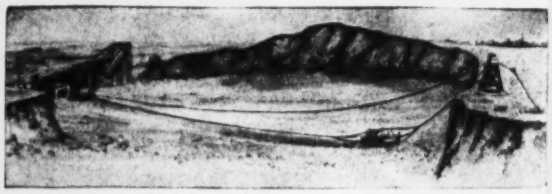

Operated by one man with a double-drum friction hoist, a Sauerman Power Scraper will excavate and convey as much material as 6 to 15 men with teams and slip scrapers. Handling capacity varies according to size scraper used and length of operating span. Usual operating span is 200 to 500 feet. Ask for Pamphlet No. 10.

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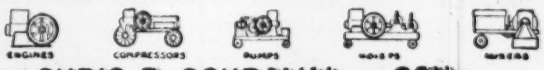

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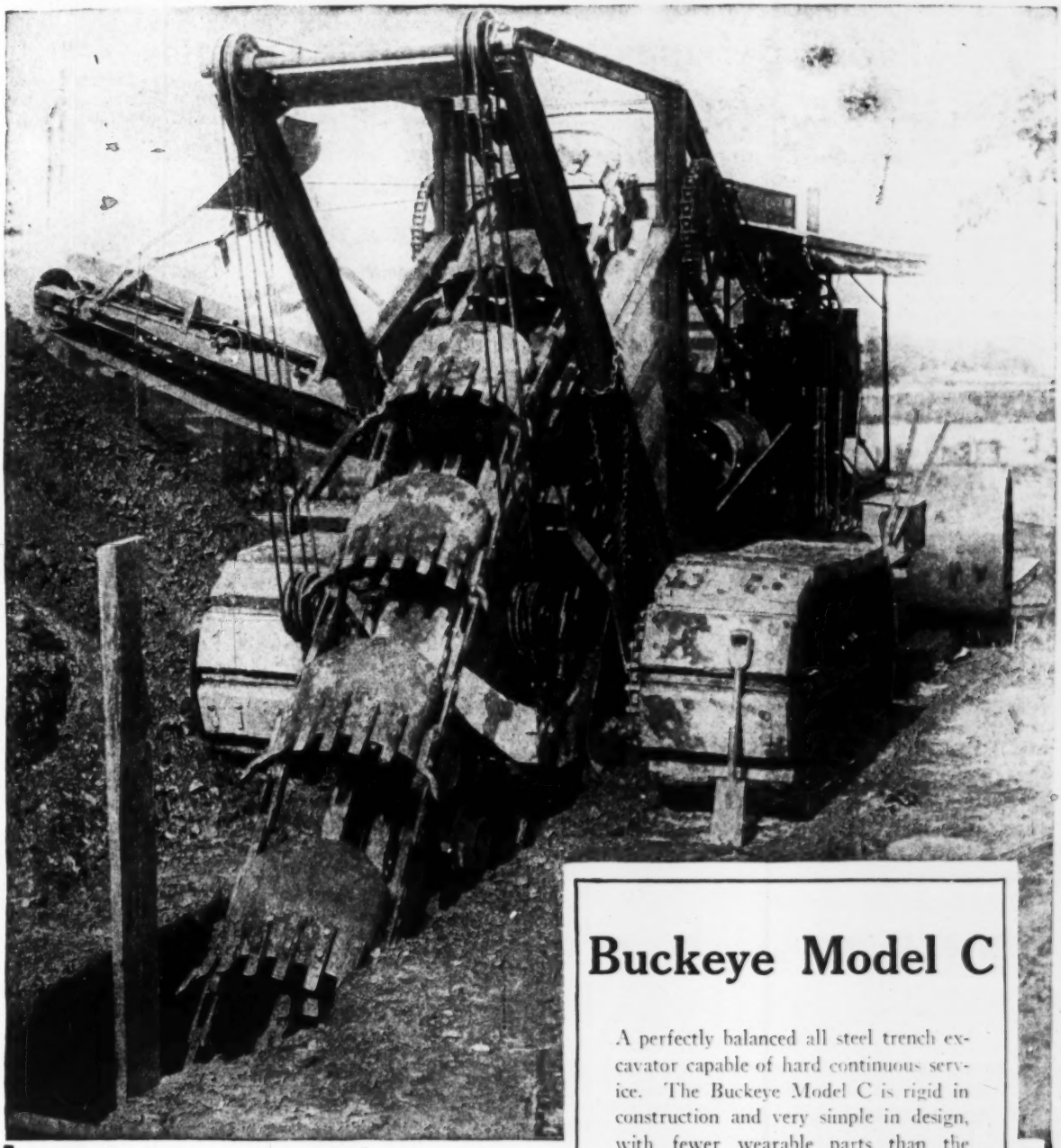

The photograph shown above was taken on a big job at Warren, Ohio. H. J. Poff and Sons, Contractors. Note the heavy construction, the apron type tractions and the pressed steel buckets fitted with high carbon steel rooters.

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A perfectly balanced all steel trench excavator capable of hard continuous service. The Buckeye Model C is rigid in construction and very simple in design, with fewer wearable parts than the ordinary machine of this type.

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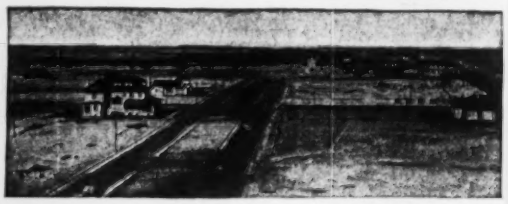

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12 Ton — ½ Yd.

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Saves first cost, moving cost and upkeep, and is readily sold or rented for any sort of excavation job. There are 1000 Keystone Excavators in use

A reliable road shovel of remarkable adaptability to other uses.

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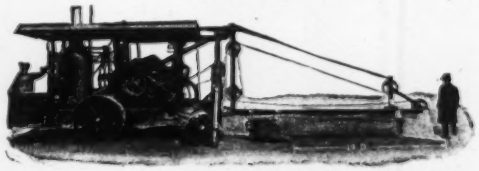

(Model 4—12-ton All Steel Excavator, with ½-yd. Skimmer)

HERCULES (RED STRAND) WIRE ROPE

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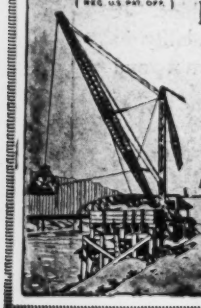

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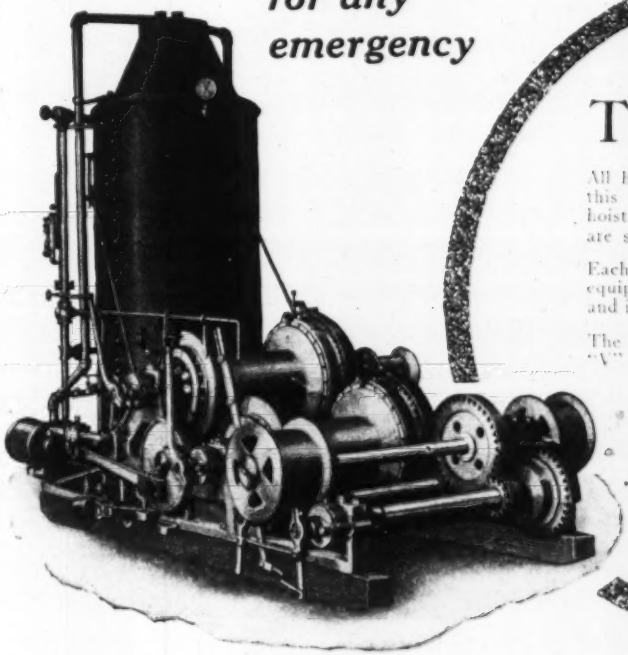
Swing Drum Speed is Ample *for any emergency*



THE "Slack" is taken care of—and the swing cable is wound upon one drum and unwound on the other.

All hoisting and swing lines run clear with this double cylinder, double friction—drum hoisting engine—because the swinging drums are separated.

Each hoisting drum is bronze bushed, equipped with powerful ratchets and pawl, and is controlled by a sturdy foot brake.

The friction is of the powerful DOUBLE "V" TYPE bolted to special cut tooth gears.

This affords but an inkling of its advantages. Write for Bulletin 131 which goes into details.

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REPRESENTATIVES: Pittsburg Pa., Tranter Manufacturing Company; Kansas City, Mo., Bunting Hardware Company, Cleveland, Ohio, W. M. Pattison Supply Company; Columbus, Ohio, Seibert-Milburn Company; San Antonio, Tex., Alamo Iron Works; Mobile, Ala., Turner Supply Co.; New Orleans, La., Hautzman & Loeb Co.; Landes & Company, Denver, Colorado; Landes & Company, Salt Lake City, Utah; Holbus-Ferris Equipment Co., Spokane, Washington; Higgins Machinery Co., Seattle, Washington; Joshua Hendy Iron Works, San Francisco, California; Henry W. O'Grady, Richmond, Va.

Proportioned for Fast Work

Every detail of the Stroudsburg Engine is designed to take full advantage of the 125 pounds boiler pressure.

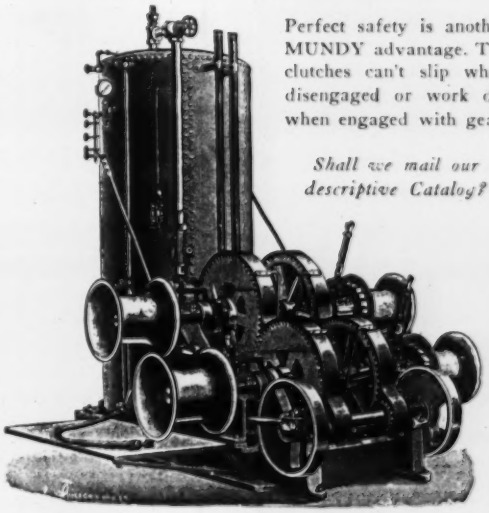
Stroudsburg
Hoisting Engines

Ask any Stroudsburg user what kind of service he gets—from the engine and the works.

STROUDSBURG ENGINE WORKS
66 North 3rd Street, Stroudsburg, Pa.

Dependable Power for Almost Any Load With the

MUNDY



Perfect safety is another MUNDY advantage. The clutches can't slip when disengaged or work out when engaged with gear.

Shall we mail our descriptive Catalog?

J. S. Mundy Hoisting Engine Co.
722-740 Frelinghuysen Avenue
NEWARK, N. J.

LIDGERWOOD HOISTS

Steam—Electric—Gasolene DERRICKS—CABLEWAYS

For Every Type of Contracting Work

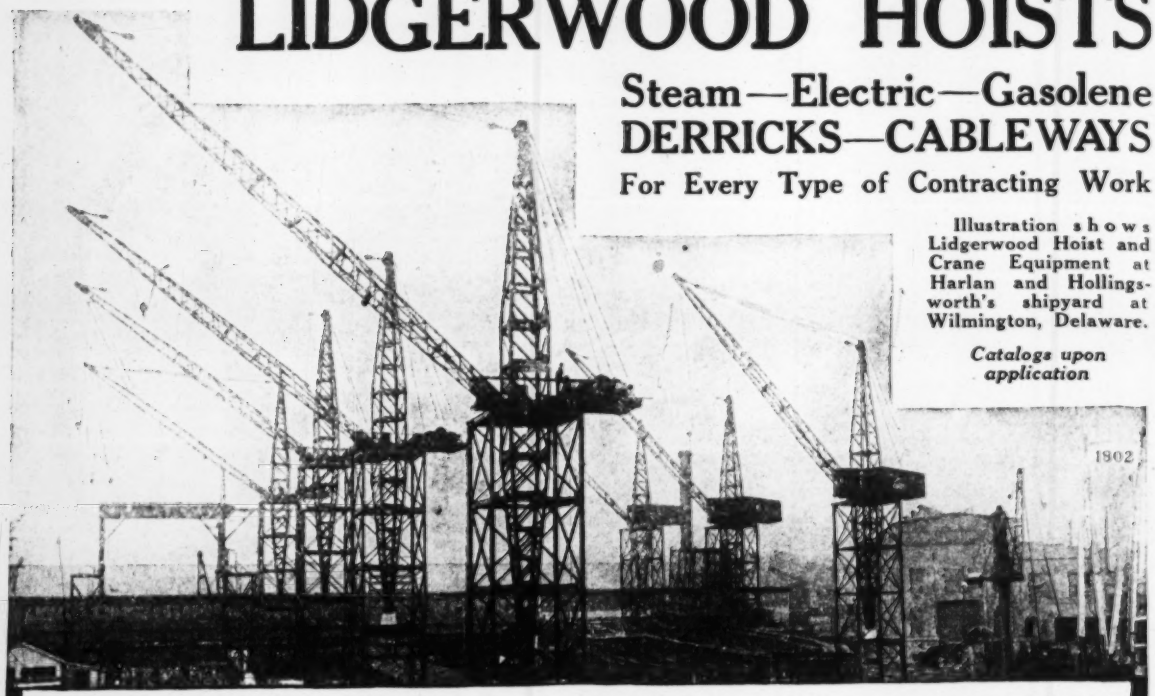


Illustration shows Lidgerwood Hoist and Crane Equipment at Harlan and Hollingsworth's shipyard at Wilmington, Delaware.

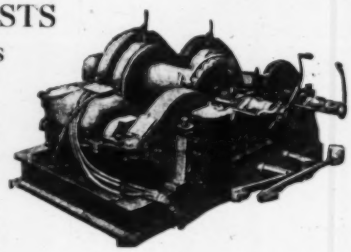
Catalogs upon application

LIDGERWOOD MANUFACTURING COMPANY

96 Liberty Street, NEW YORK, N. Y.

Philadelphia Pittsburgh Chicago Cleveland Los Angeles Seattle Detroit Woodward, Wight & Co., Ltd., New Orleans
Canadian Allis-Chalmers, Ltd., Toronto. London, England.

FLORY HOISTS
Pay Dividends



Rugged in design; liberal, well-finished, wearing surfaces—dependable.

A Flory Hoist for every purpose

Complete catalog of steam and electric hoists, derrick fittings, cable-ways, etc., sent on request.

Write, wire, or telephone today.

S. Flory Mfg. Co., ***Works*: Bangor, Pa.**

New York 95 Liberty St. Chicago Monadnock Bldg. Pittsburgh 1st Nat'l Bank Bldg.
Hartford Conn., K. B. Noble Co.

Dobbie Derricks
and Hoists

Stock of Fittings, Blocks, Sheaves, Winches, etc., carried by our agents—
G. S. Green Co., New York.
Beckwith Machy. Co., Pittsburgh.
Beckwith Machy. Co., Cleveland.
P. I. Perkins Co., Boston.

DOBBIE Foundry & Machine Co.
Manufacturers
Niagara Falls, N. Y.

USE THIS COUPON

SEND FOR BULLETIN H

ELESCO SUPERHEATERS

for Steam Shovels and Stationary Boilers
Pipe Coils for all purposes

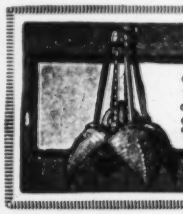
Name ..... Position .....

Company..... Address .....

I am interested in Steam Shovels ☐ Stationary Boilers ☐ Pipe Coils ☐

LOCOMOTIVE SUPERHEATER CO.
General Offices: 30 Church St., New York City

Chicago People's Gas Bldg. Boston 53 State St. Pittsburgh Oliver Bldg.



HAYWARD BUCKETS

Orange Peel Buckets—the fruition of thirty-five years' experience in building better buckets. Three- or four-sided types with or without cut-off blades. **Ask for Catalog 43.** 2453-Y
The Hayward Co., 18-50 Church St., New York

WHITING CORPORATION

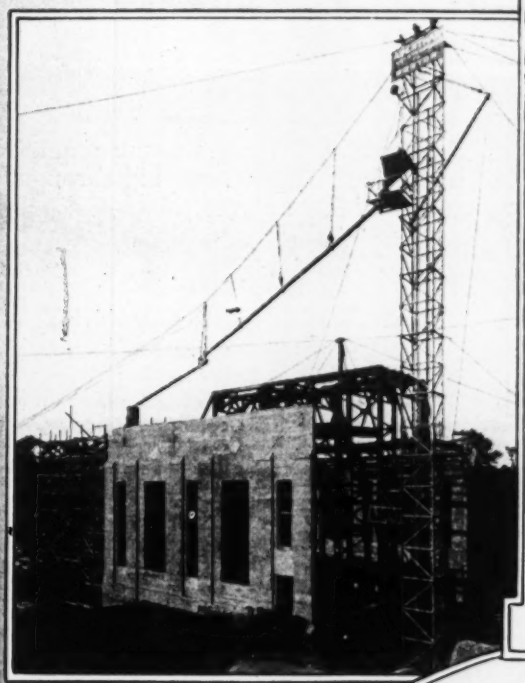
(formerly Whiting Foundry Equipment Co.)

General Offices and Works: Harvey, Ill.

FOUNDRIES EQUIPPED COMPLETE
CRANES OF ALL TYPES

MEAD-MORRISON

LIFTS THE LOAD OF INDUSTRY



Dependability

The name Aberthaw in the building industry represents the utmost in construction. The Aberthaw Construction Company has established a unique reputation for taking hold of a job and turning it out on schedule time.

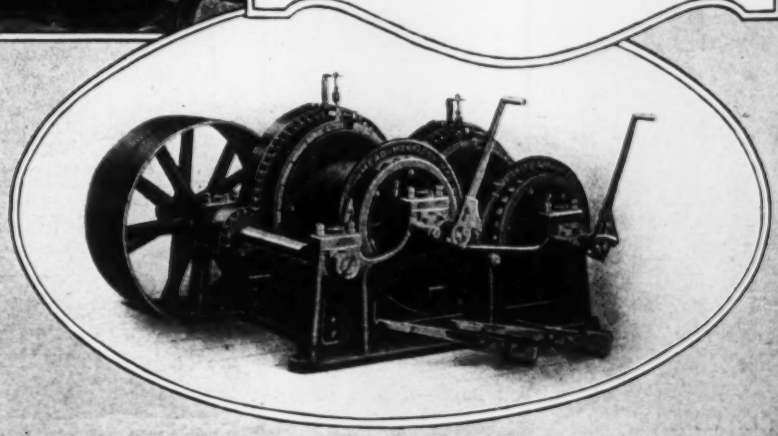
Mead-Morrison Material-handling Equipment has helped this firm in building up and maintaining this record of achievement and dependability. On every Aberthaw job, Mead-Morrison Equipment is used.

The photo here reproduced shows one way in which Mead-Morrison is of service to the Aberthaw Company. The job is at the Great Falls Mfg. Co., Somersworth, N. H., where Mead-Morrison Steam and Electric Hoists and Grab Buckets are doing splendid and dependable work—day in and day out.

AGENTS:

Edward R. Baron Co. ..... Los Angeles, Cal.
Edward R. Baron Co. ..... San Francisco, Cal.
Beckwith Machinery Co. ..... Pittsburgh, Pa.
Beckwith Machinery Co. ..... Cleveland, Ohio
Boelck Machinery & Supply Co. ..... Milwaukee, Wis.
The Barnard Machine Co. ..... St. Louis, Mo.
The Borchert Ingersoll Co. ..... St. Paul, Minn.
J. W. Dopp & Co., Inc. ..... Detroit, Mich.
The Equity Equipment Co. ..... Cincinnati, Ohio
The George Fife Equipment Co. ..... Indianapolis, Ind.
P. I. Perkins Co. ..... Boston, Mass.
T. J. Pratt ..... Norfolk, Va.
Steel Products Corp. ..... El Paso, Texas

Warehouses and stock on hand at Boston, Pittsburgh and Chicago



REGISTERED IN UNITED STATES PATENT OFFICE
MM&M

ENGINEERS & CONTRACTORS
COAL HANDLING & HOISTING MACHINERY

MEAD-MORRISON

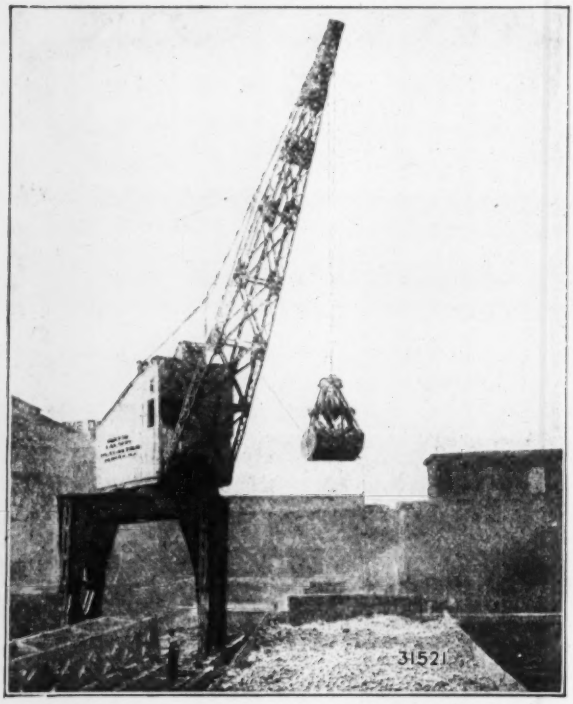
MANUFACTURING COMPANY

1229 Prescott Street, East Boston, Mass.

Welland, Canada

NEW YORK
SINGER BUILDING
CHICAGO
MONADNOCK BLDG.
MONTREAL
255 BEAVER HALL HILL

LAMBERT



CRANES

are designed for

SPEED

They are a good investment. They are built with years of experience behind them.

We specialize in Hoists—Derricks—Cranes

for bucket work where large output is desired. Low costs and continuity of service are assured with Lambert Hoists. Our Engineers are at your service. It pays to buy a good hoist—it pays to buy a LAMBERT.

Lambert Hoisting Engine Company

Main Office and Works:

117 POINIER ST. (Foot of South Broad St.) NEWARK, N. J.

BRANCHES:

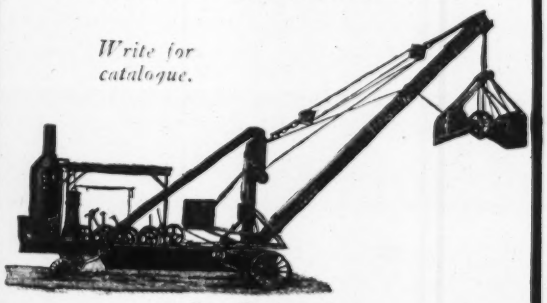
NEW YORK CITY, 30 Church St.
BOSTON, 39 Hayward St.
NEW ORLEANS, Hibernia Bank Bldg.
BALTIMORE, 131 So. Howard St.
CHICAGO, Old Colony Bldg.
PITTSBURGH, Diamond Bank Bldg.
CLEVELAND, Citizens' Bldg.
INDIANAPOLIS, Merchants' Bank Bldg.

TERRY

For a quarter of a century building the highest type

CRANES and DERRICKS

Write for catalogue.



Terry Tractorcrane

A speedy and rugged crane requiring no outriggers, swinging through an arc of 300 degrees.

TERRY

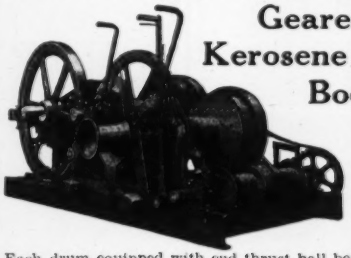
MANUFACTURING COMPANY

Grand Central Terminal

New York City

Plant—Kearny, Newark, N. J.

O. K. Heavy Duty Double Drum Geared Hoist with Kerosene Engine and Boom Swinger



Designed for use on derricks and overhead cranes for loading and unloading materials. Double drum boom swinger operated by one lever. Clutch consists of cone metal friction type with quick spring release. Each drum equipped with end thrust ball bearings—attached to hoist by sprocket and chain. Bearings babbitted of split adjustable type.

Next time you need a hoist write for our new catalog.

O. K. Clutch & Machinery Co., Columbia, Pa.

ROEBLING WIRE ROPE

Welding Wire **Wire Rope Fittings**

John A. Roebling's Sons Co., Trenton, N. J.

Bay City Walking Land Dredges

Built any width. For new ditches or clean-out work. Spans the ditch. Low cost installation, moving, labor, fuel and repairs. Two-man operated. Equipped with oil engine. Catalogs on request.

Bay City Dredge Works, 2601 Center Ave.

Bay City, Mich.

What Makes One Wire Rope Far Outwear Another?

Wire ropes of the same type look alike, but one rope may last twice as long as another.

There are very good reasons for this.

Wire rope is ordinarily made up of six strands of either nineteen or seven wires each. When the rope is used for hoisting or hauling, the wires and strands rub against one another as well as against the pulleys, rollers and other objects.

The friction which arises from this internal rubbing is often as big a factor in the wear of the rope as the external friction and abrasion.

For this reason the twisting of the wires into strands and the *lay* of the strands as well as the internal lubrication are highly important. In a properly made wire rope, the wires and strands are so proportioned and laid as to minimize internal friction and provide amply for external wear. Careful provision has likewise been made for internal lubrication.

One of the reasons that HAZARD Wire Ropes have such unusual records of performance in service, is because they receive the careful attention to these three vital factors.

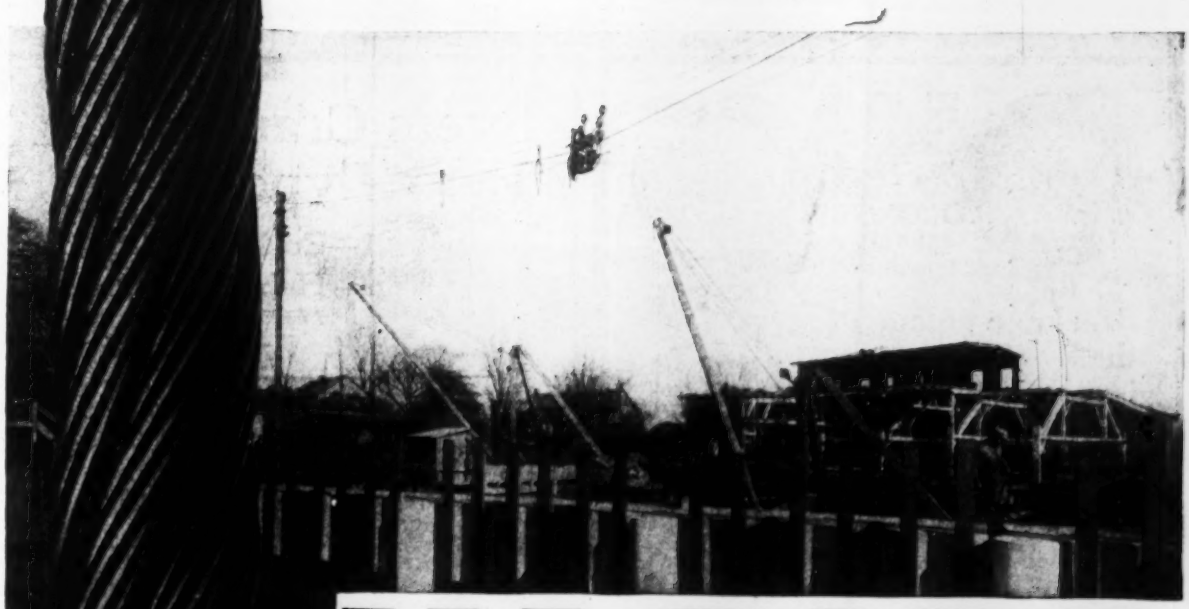
We have interesting evidence to show of the typical service of economy given by HAZARD Wire Ropes. Where shall we send you this story?

HAZARD MANUFACTURING CO.

Makers of Quality Wire Rope Since 1848

NEW YORK 533 Canal St. | CHICAGO 552 W. Adams St. | PITTSBURGH 1st Nat'l Bank Bldg. | DENVER 1415 Wazee St.

Wilkes-Barre, Pa.



HAZARD WIRE ROPE

LITTLE GIANT ROAD CRANE

What Would You Do

Without mechanical equipment? Engineering projects that are now accomplished easily and with a celerity that is astonishing, are only made possible by mechanical equipment. And as accomplishment is strengthened by means of mechanical equipment, likewise labor costs are decreased.

A machine that is capable of performing in a single task, but an endless assortment, brings about first, these desired advantages of mechanical equipment; second, labor saving possibilities multiplied by its scope of application.

No one machine has ever been developed in this direction that in any way equals the LITTLE GIANT ROAD CRANE. Portable and self-propelled; handling tag line, orange peel or clam shell bucket; working practically anywhere a truck might go, give it range to accomplish the things that mean money to every contractor.

Address Dept. A.

Due to increased manufacturing facilities, we are now in position to accept orders for immediate delivery.

The Locomotive Crane Company
OF AMERICA
CHAMPAIGN ILLINOIS

OHIO LOCOMOTIVE CRANES

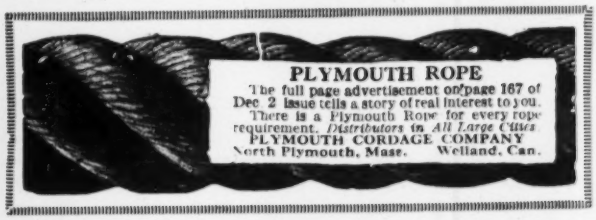
Breakage on one of these fine cranes is practically unknown. Why? 90% Steel Castings.

Ohio Locomotive Crane Co.
101 So. Sandusky Ave.
Bucyrus, Ohio

Byers Cranes in Two Types:—

1—Full Circle Swing
2—Half Circle Swing
(*The "Auto-Crane"*)

The John F. Byers Machine Co.
250 Sycamore St., Ravenna, Ohio



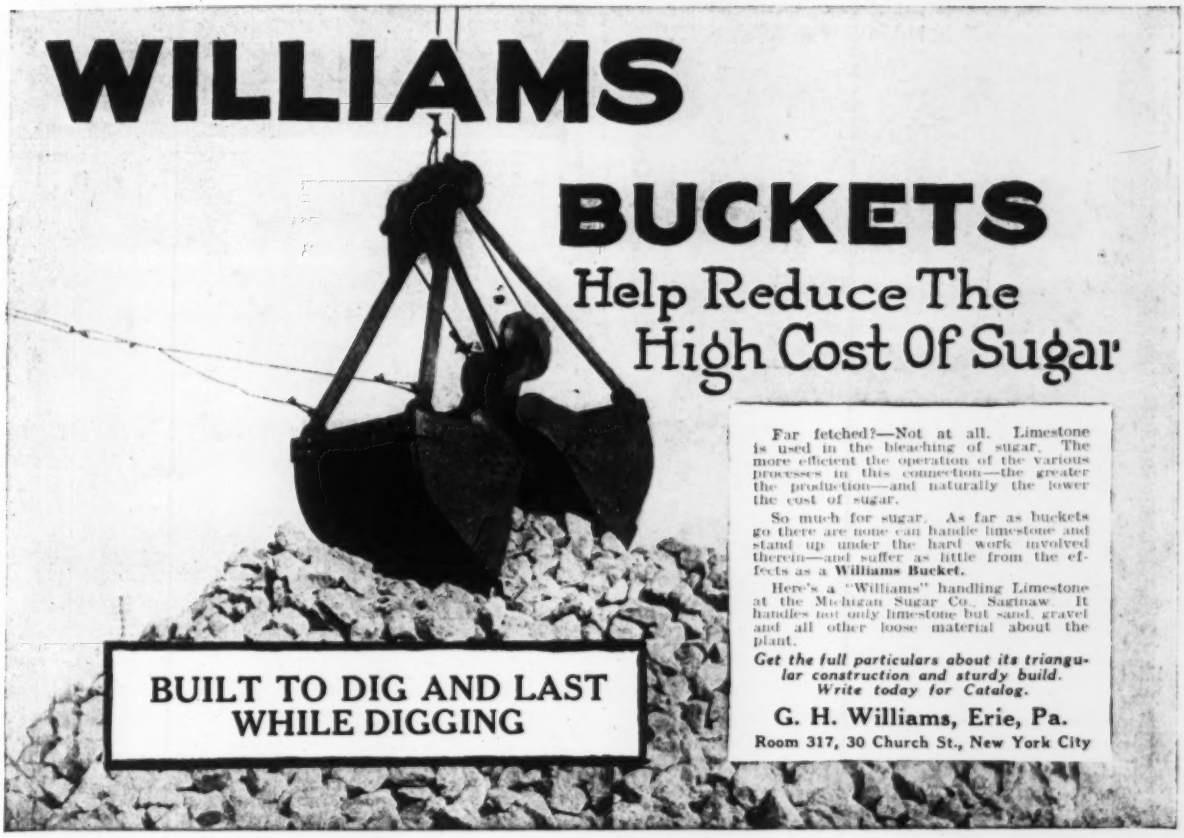
PLYMOUTH ROPE
The full page advertisement on page 167 of Dec 2 issue tells a story of real interest to you. There is a Plymouth Rope for every rope requirement. *Distributors in All Large Cities*
PLYMOUTH CORDAGE COMPANY
North Plymouth, Mass. Welland, Can.

The Underpinning & Foundation Co. 290 Broadway, New York City

Difficult Foundations
Pneumatic, Steel, Concrete and Wooden Pile Foundations. Bridge Piers; Underpinning Heavy Buildings.

"HERCULES" STEEL PILES

WILLIAMS



BUCKETS

Help Reduce The High Cost Of Sugar

Far fetched?—Not at all. Limestone is used in the bleaching of sugar. The more efficient the operation of the various processes in this connection—the greater the production—and naturally the lower the cost of sugar.

So much for sugar. As far as buckets go there are none can handle limestone and stand up under the hard work involved therein—and suffer as little from the effects as a **Williams Bucket.**

Here's a "Williams" handling Limestone at the Michigan Sugar Co., Saginaw. It handles not only limestone but sand, gravel and all other loose material about the plant.

Get the full particulars about its triangular construction and sturdy build. Write today for Catalog.

G. H. Williams, Erie, Pa.

Room 317, 30 Church St., New York City

BUILT TO DIG AND LAST WHILE DIGGING

Kiesler Clam Shell

The only positive *non-lifting* clam shell bucket on the market is built by Kiesler.

The Kiesler bucket operates on the *Multi-System-Bell-Crank lever principle* producing a powerful compound scissor movement.

Jos. F. Kiesler Co.
928 W. Huron St.
Chicago, Ill.

Kiesler buckets are mechanically perfect and fully guaranteed. Send for our bulletin.

Dumping Buckets of all types, Industrial Cars, Skips, Portable Tar Heaters, Lead Melting Furnaces, Carts for hauling Concrete, Coal, Ore, etc., Forgings and Foundry Equipment.

Iron Castings **Aluminum Castings**

All kinds of Steel Plate Work up to ⅜-in. thickness.

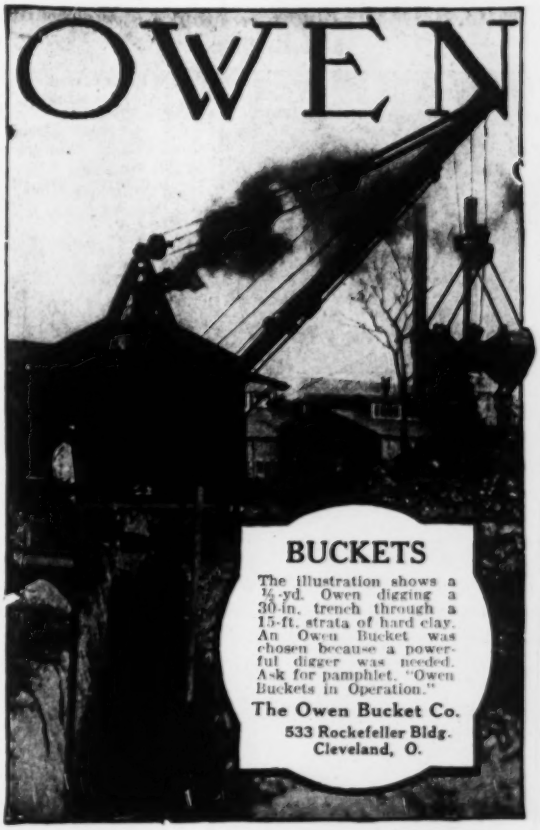
PENN FOUNDRY & MANUFACTURING COMPANY
Hill Crest, Reading, Pa.

Aden Grab Buckets

are so constructed that the counterweight does not come in contact with material, thereby insuring a greater digging power and absolutely no loss of power at any stage of the closing action. **Write for further information.**

The Advance Engineering Co.
Offices: 6543 Metta Street
Cleveland, O.

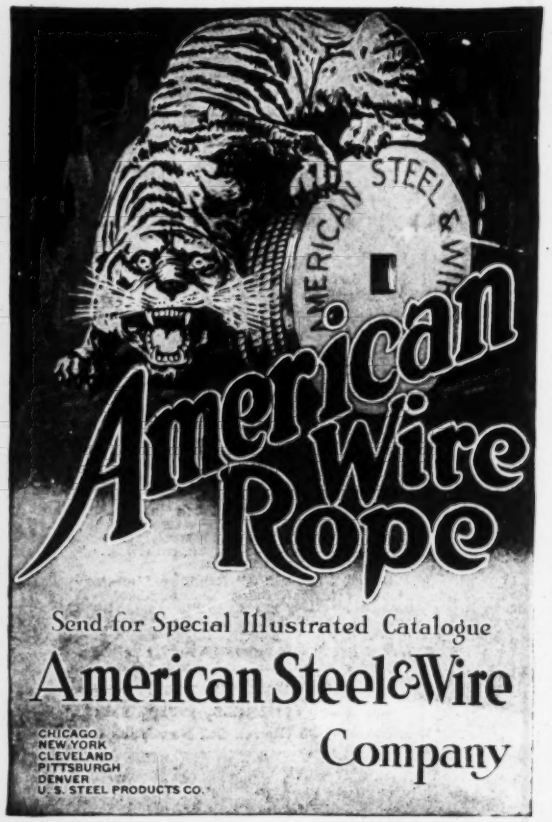
OWEN



BUCKETS

The illustration shows a ½-yd. Owen digging a 30-in. trench through a 15-ft. strata of hard clay. An Owen Bucket was chosen because a powerful digger was needed. Ask for pamphlet, "Owen Buckets in Operation."

The Owen Bucket Co.
533 Rockefeller Bldg.
Cleveland, O.

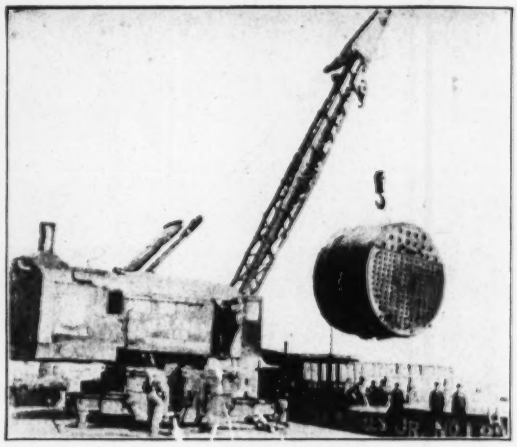


Send for Special Illustrated Catalogue

American Steel & Wire Company

CHICAGO
NEW YORK
CLEVELAND
PITTSBURGH
DENVER
U. S. STEEL PRODUCTS CO.

INDUSTRIALS



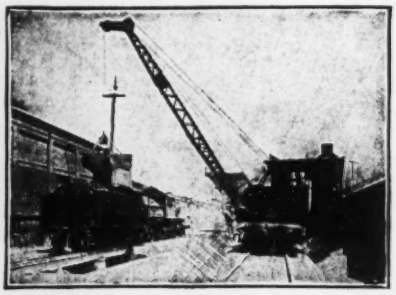
"INDUSTRIAL" CRANES OF CAPACITY AND TYPE TO MEET EVERY REQUIREMENT

The Illustration shows a Special Type X "Industrial" Crane hoisting a 60-ton, marine boiler, at the Army Supply Base, Norfolk, Va. Pass your brain-racking hoisting and transporting difficulties on to us. Very prompt deliveries can be made on any type of crane.

Send for catalog covering our entire line.

INDUSTRIAL WORKS
BAY CITY, MICHIGAN
NEW YORK 50 Church Street — PHILADELPHIA Widener Bldg. — DETROIT Book Bldg. — CHICAGO McCormick Bldg.

— In difficult work the
O. S. Dependable Locomotive Cranes and Buckets



Insure satisfaction

Correct Design
Right Material
Superior Fabrication

Orton & Steinbrenner Co.
CHICAGO, ILL.
Shops
Huntington, Ind.

For Digging or Dredging

we can furnish you buckets that will satisfy you in every way. With a minimum number of parts and husky make-up they are easily operated and stay on the job.

There are years of experience behind these buckets and we are prepared to fill your order from stock at reasonable prices.

Vulcan Iron Works, Inc.
Jersey City, N. J.

We Dig and Refill Trenches

For water, sewers, gas, conduits and drains
Pipe laid by contract and installation of water systems.

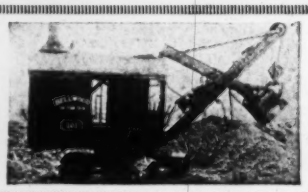
Trench Machines and Backfillers For Rent

W. G. FRITZ CO., INC., *Contractors*
Essex Bldg., Newark, N. J.

GRAY STRAND WIRE ROPE
ELECTRICALLY WELDED WIRE

Wickwire Spencer Steel Corporation
Worcester, Mass. Buffalo, N. Y.

District Offices and Warehouses
New York Philadelphia Detroit Chicago Boston
San Francisco Tulsa, Okla.



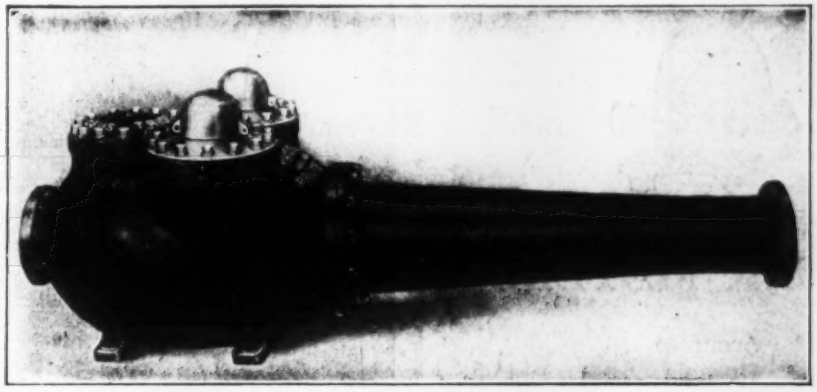
BELLWOOD
Steam Shovels

Weight 18 tons, ¾-cu. yd. dippers, full revolving on traction wheels. Deliveries in December.

Specifications and prices on request.

The Bellwood Steam Shovel Co., Inc., Bellwood, Pa.

"Mechanize Underground" with the
Shuveloder
a practical mucking machine
Lake Superior Loader Co. Duluth, Minn



Big Fires

DON'T mean loss of revenue any more. The Trident Protectus is taking care of that on many important lines.

There are more Trident Meters in service than any other make.

Neptune Meter Company
New York

The Weber Subterranean Pump is made by the Neptune Meter Company and sold under the guarantee that it will deliver at least 25 per cent. more water from the same well than any straight air lift or "booster." Or, when the yield of the well is limited, it will deliver the same quantity of water with 25 per cent. less power.

Staff of Hydraulic Engineers at your service.

"WATCH DOG"

WATER METERS

Accurate
Durable
Efficient

GAMON METER COMPANY
Main Office and Works:
NEWARK, NEW JERSEY

Jenkins Standard Iron Body Gate Valves

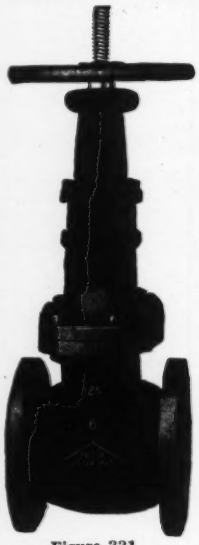


Figure 331
with steel spindle

Double face solid wedge type. Bodies and bonnets of high grade cast iron. Seat rings are bronze and gates or wedges cast iron faced with bronze rings, except in smaller sizes, in which wedges are made entirely of bronze. Improved shape of body and bonnet not only insures perfect castings free from internal shrinkage strains but secures the maximum of strength and rigidity.

Sizes 16 in. and smaller for 125 pounds working steam pressure and 175 pounds working water pressure. Sizes 18 in. and above for 100 pounds working steam pressure and 125 pounds working water pressure. Screwed or flanged, rising, or stationary spindles.

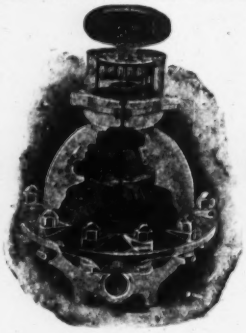
Know genuine Jenkins Valves by the name and Jenkins Diamond Mark—at supply houses everywhere.

JENKINS BROS.
New York Chicago Philadelphia Pittsburgh
St. Louis Boston San Francisco Washington
Montreal London Havana

2221-J

Jenkins Valves
SINCE 1864

Lambert Meters



Manufactured by
THOMSON METER CO.
100-110 BRIDGE ST., BROOKLYN, N. Y.

SIMPLEX METERS

operate accurately with a low Venturi head. Famous for sensitiveness, range and ability to measure low flow.

Bulletin 113.

Simplex Valve and Meter Company

Manufacturers of
WATER METERS for large pipes, Rate Controllers: Automatic AIR VALVES, REGULATING VALVES and HYDRAULIC APPARATUS of Special Design.
5722 Race Street, Philadelphia, Pa.

New England Representative—Geo. W. Stetson, 141 Milk St., Boston, Mass. Pacific Coast Representatives—Water Works Supply Co., San Francisco and Los Angeles. Canadian Representatives—Francis Hankin & Co., Toronto and Vancouver, Canada.

See our large advertisement in the preceding and following issues.

KINGDOM OF BELGIUM

25 Year External Gold Loan 7½% Sinking Fund Redeemable Bonds, Dated June 1st, 1920—Payable at the Rate of 115% of the Principal Sum, on or Before June 1st, 1945.

Principal, Premium and Interest Payable in New York Gold Coin

Subscriptions received by

The Coal & Iron National Bank
143 Liberty Street, New York City
Telephone Rector 9202—Bond Department

Stevens Water Level Recorders and Indicators

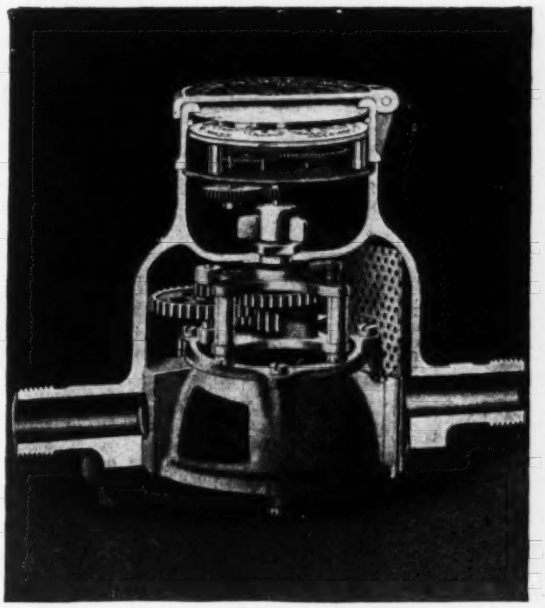
for water power plants, tides, irrigation, city water supply, sewers and drains.

Let Stevens Recorders plot your Hydrographs

Direct Acting, Long Distance, Duplex and Differential Recorders and Indicators, Transits and Levels.

Bulletins on request

LEUPOLD VOELPEL & CO.
109 East 70th St., N., Portland, Ore.
Hydrographic and Surveying Instruments



The Hersey Disc Meter, Model HF, is the product of thirty-five years of experience and refinement in the manufacture of water meters.

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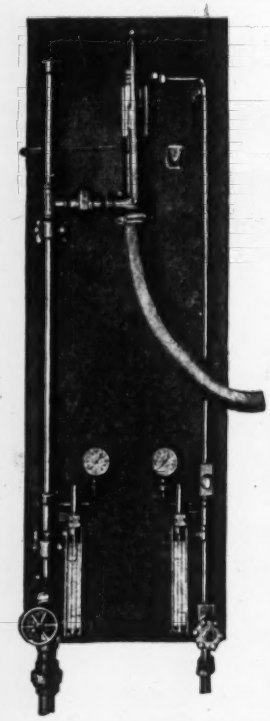

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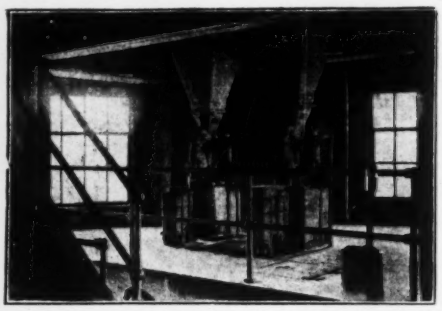

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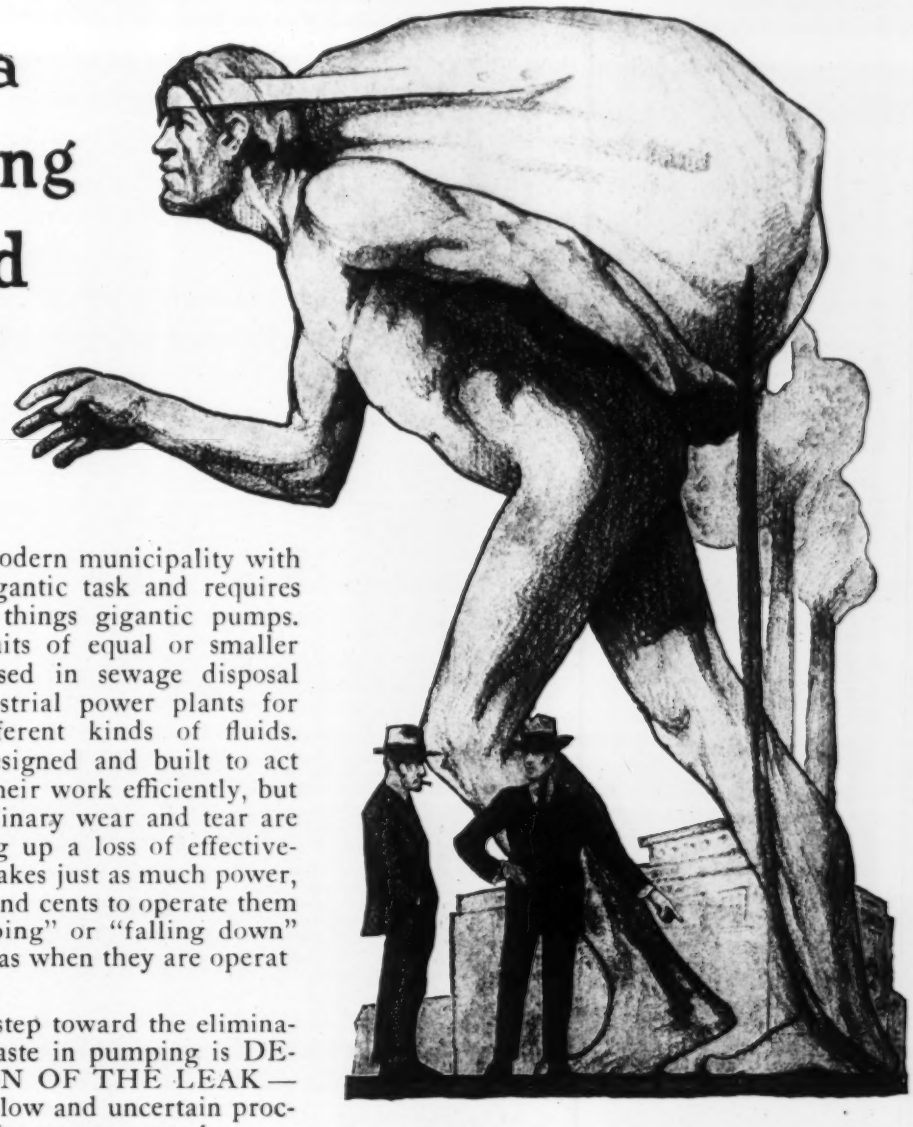

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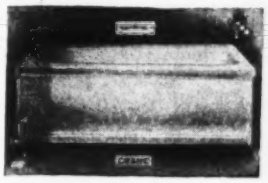

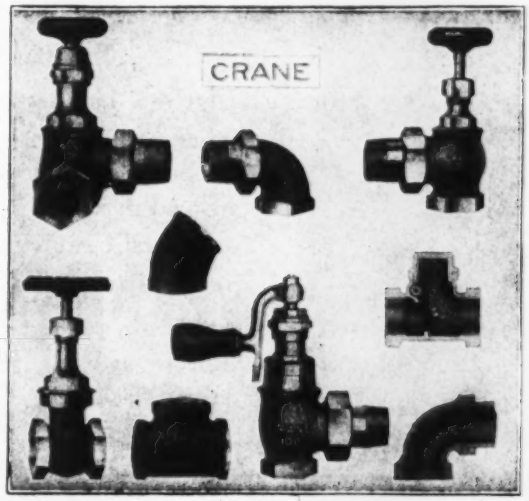

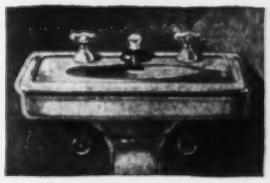

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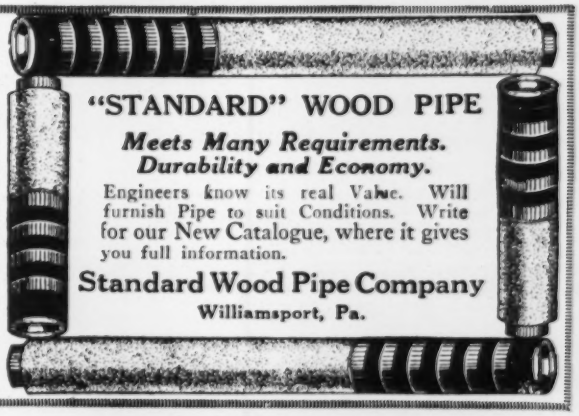

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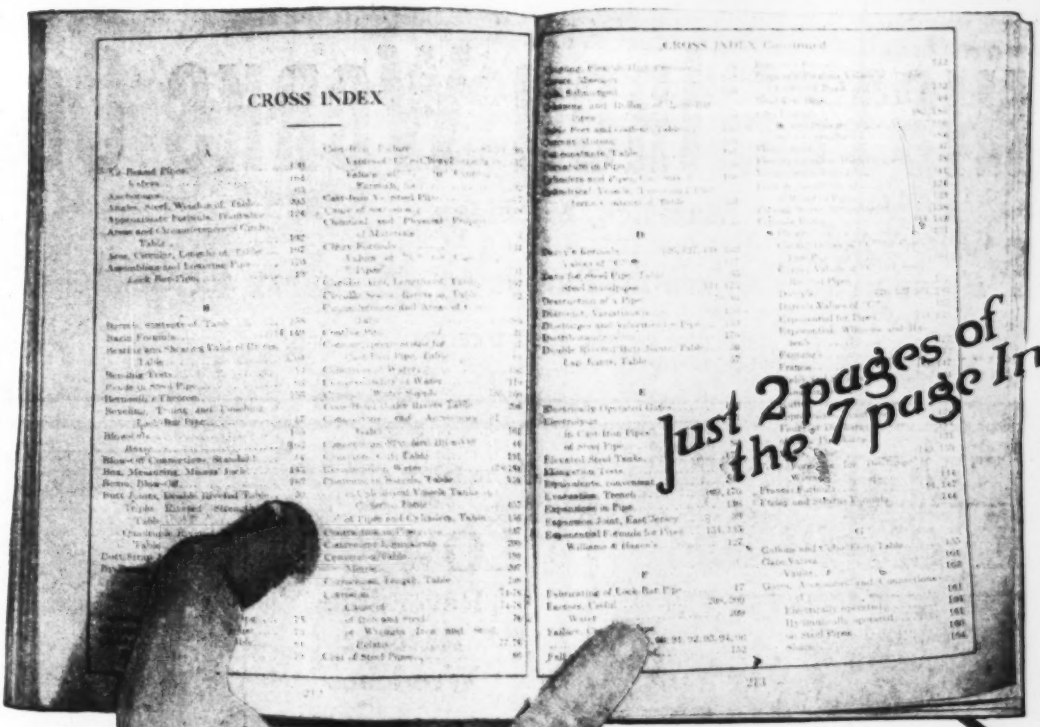

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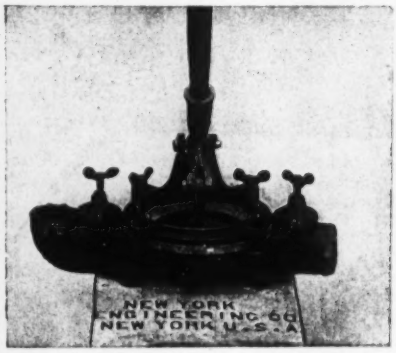

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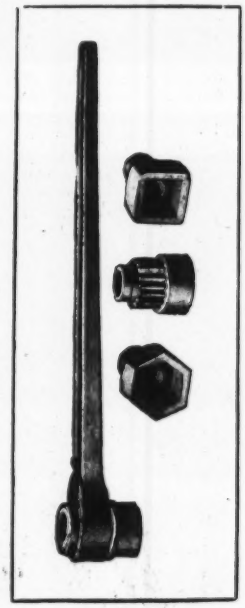

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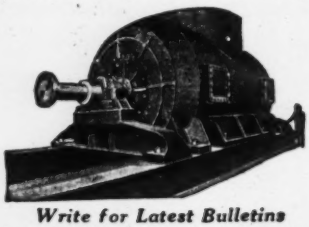

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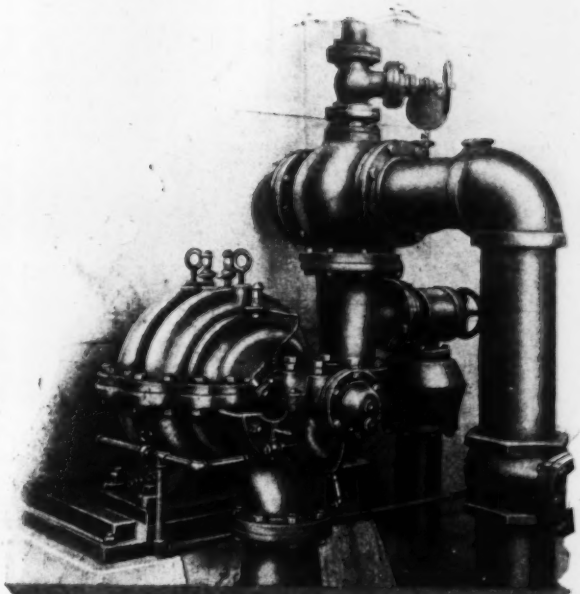

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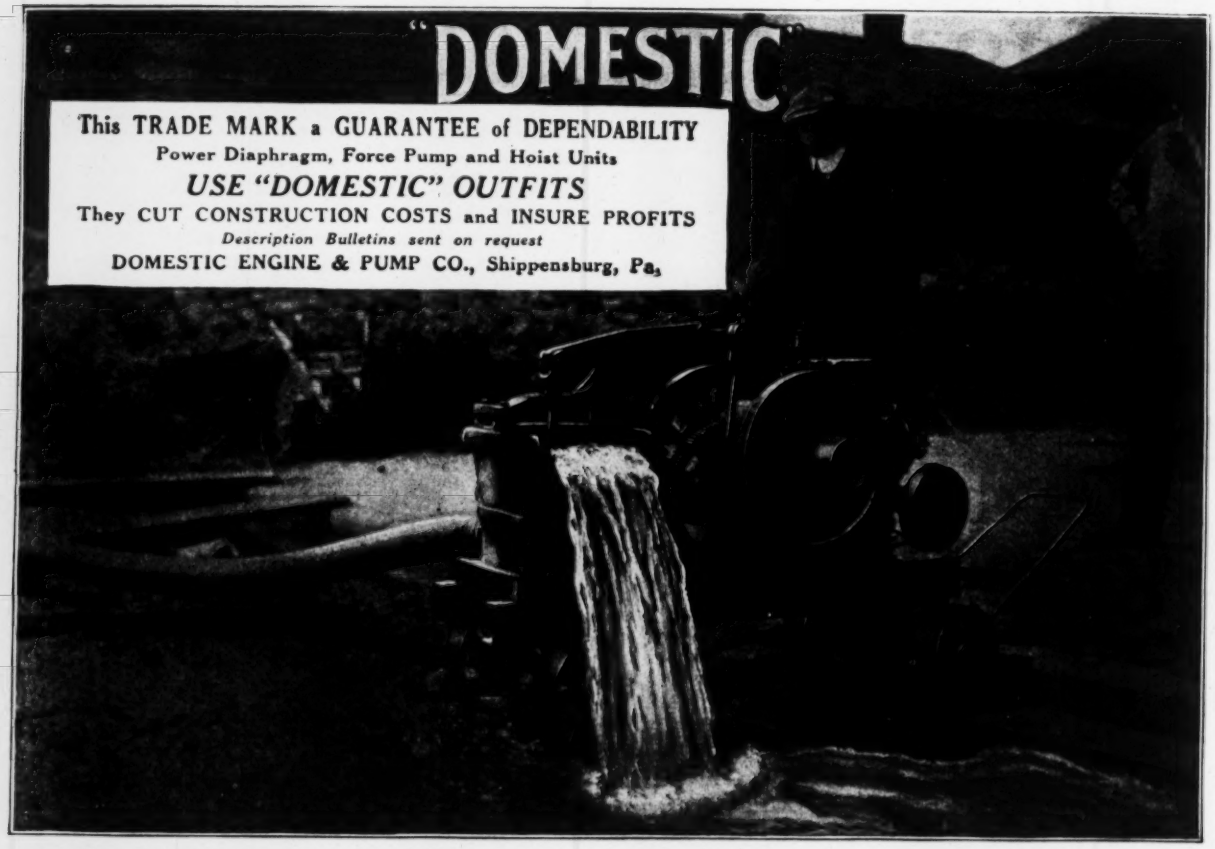

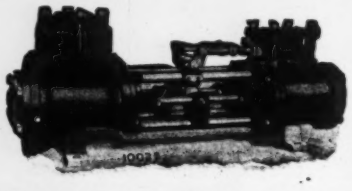

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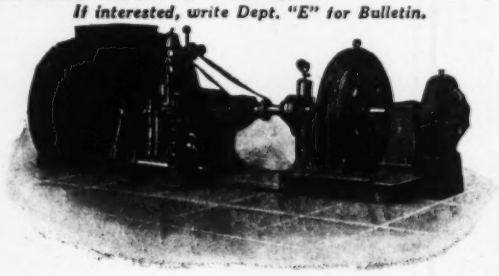

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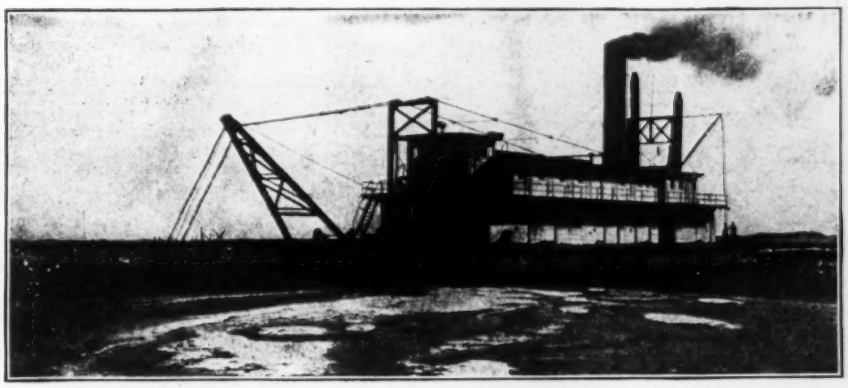

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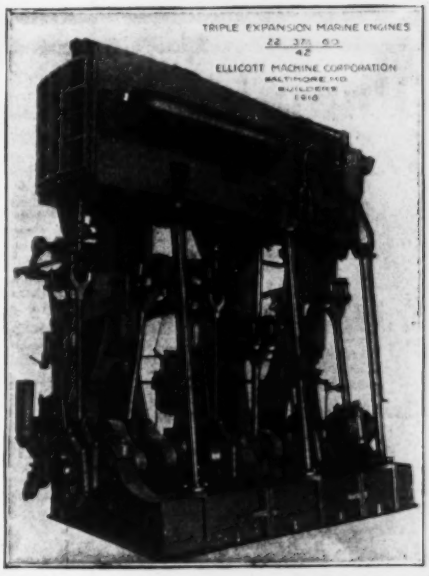

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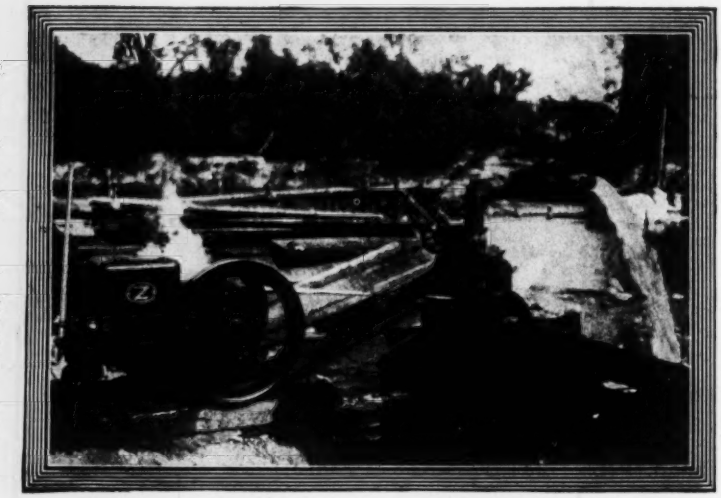

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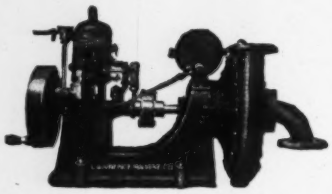

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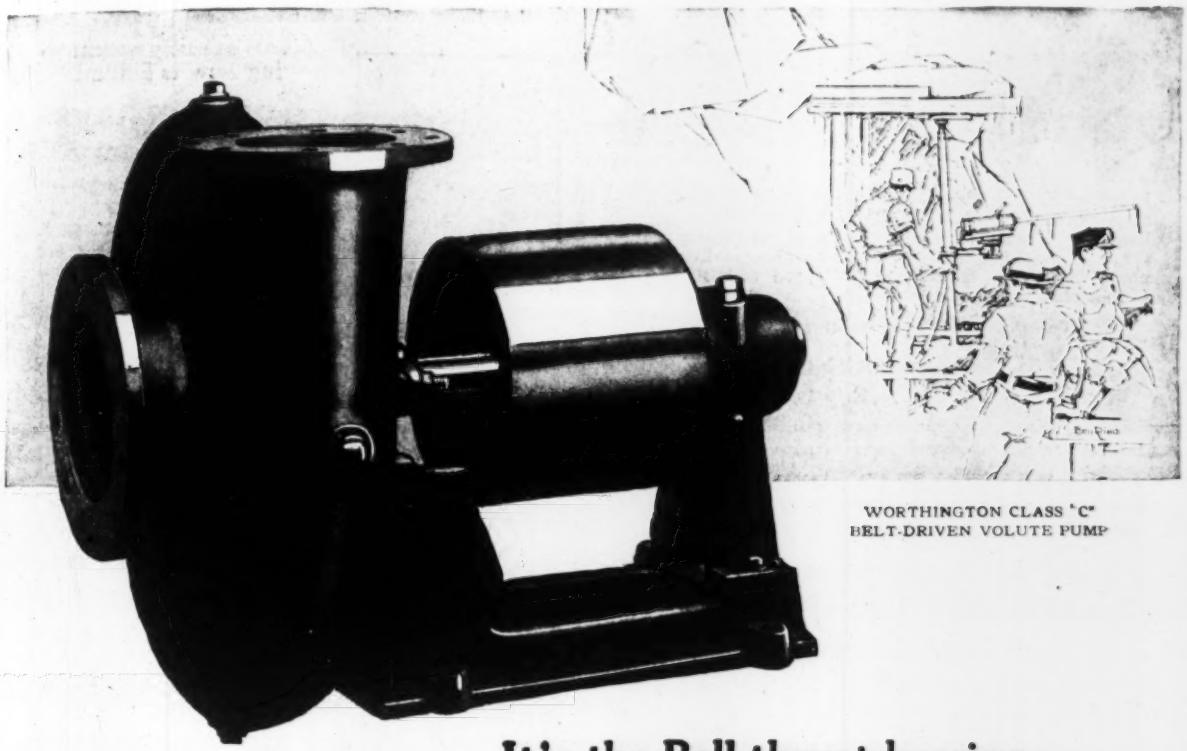

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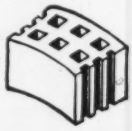

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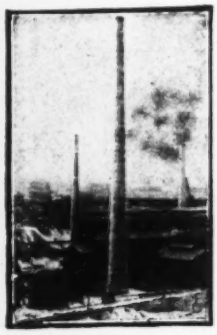

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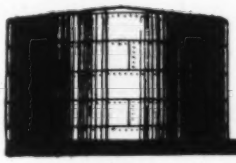

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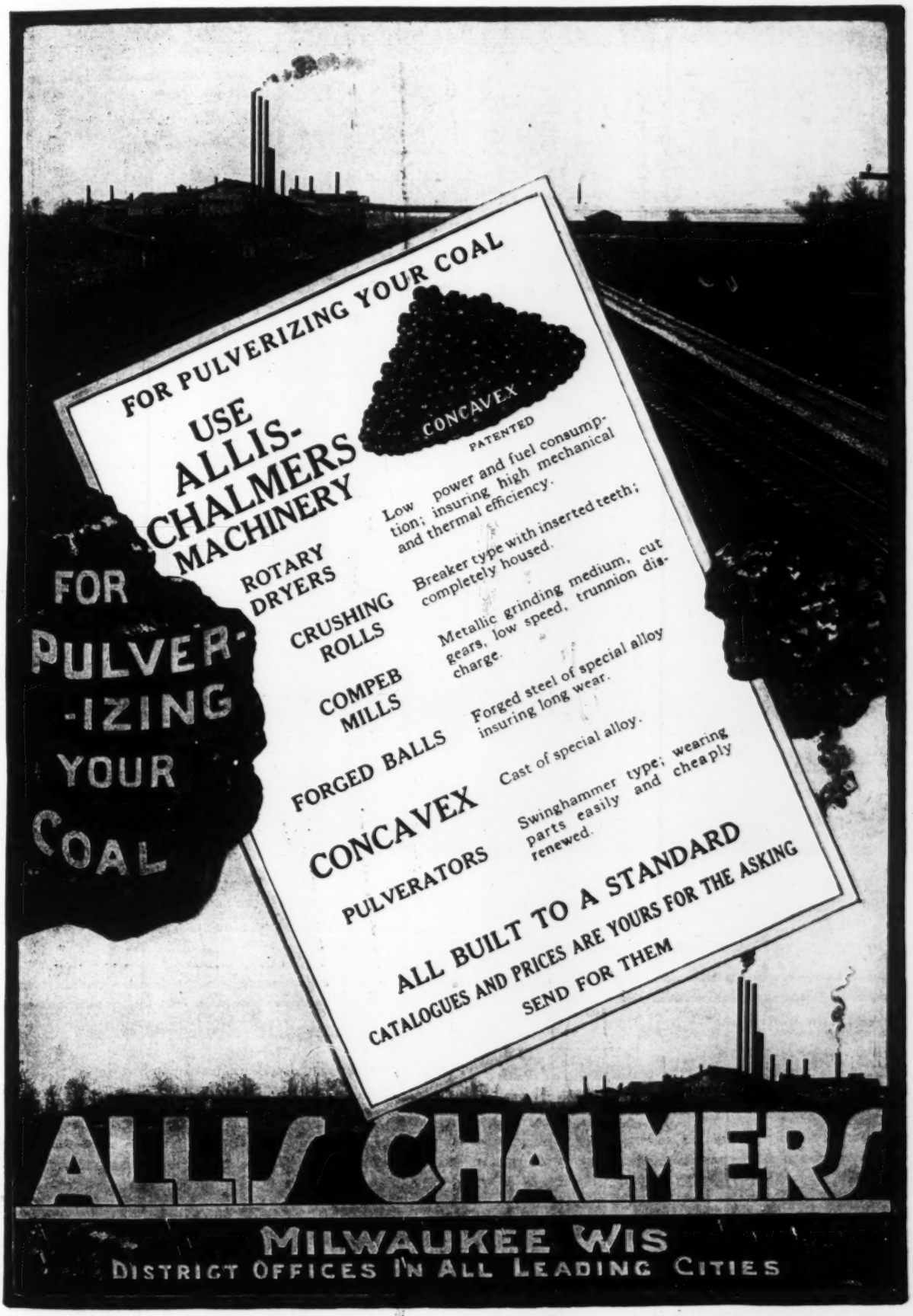
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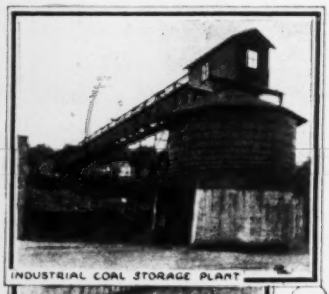

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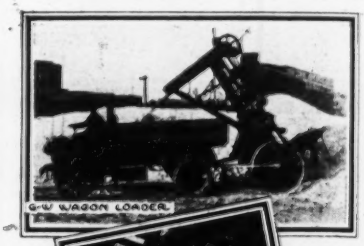

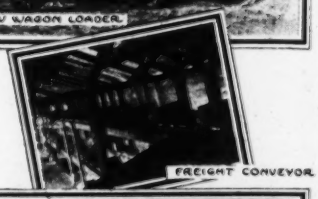

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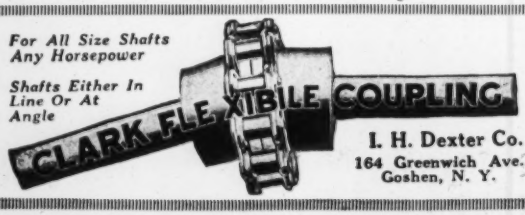

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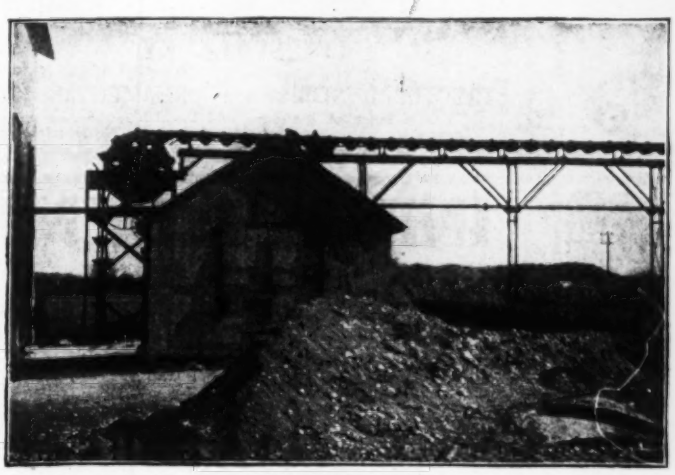

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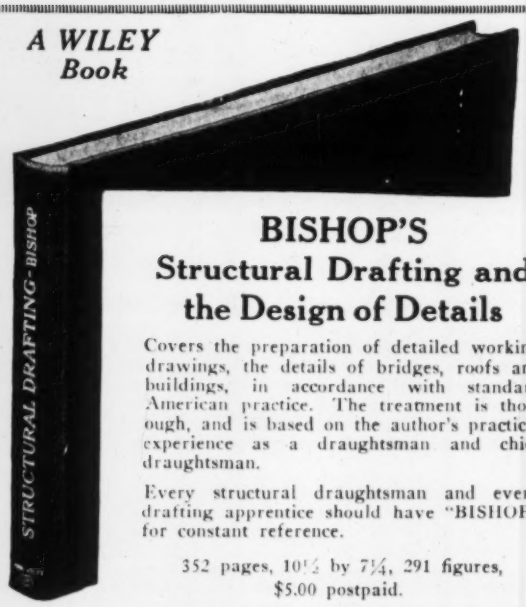

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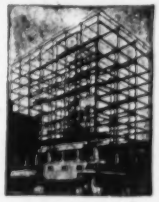

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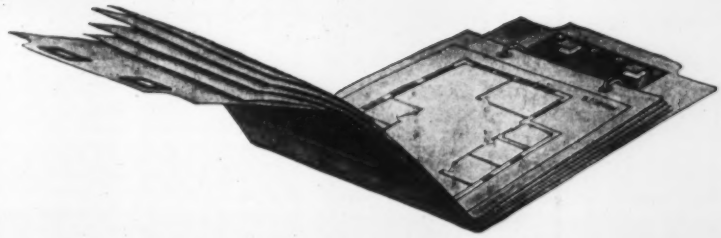

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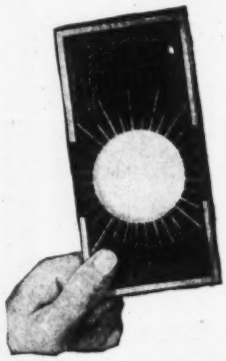

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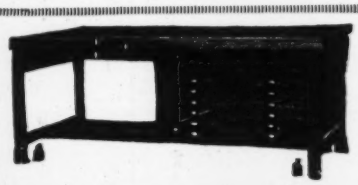

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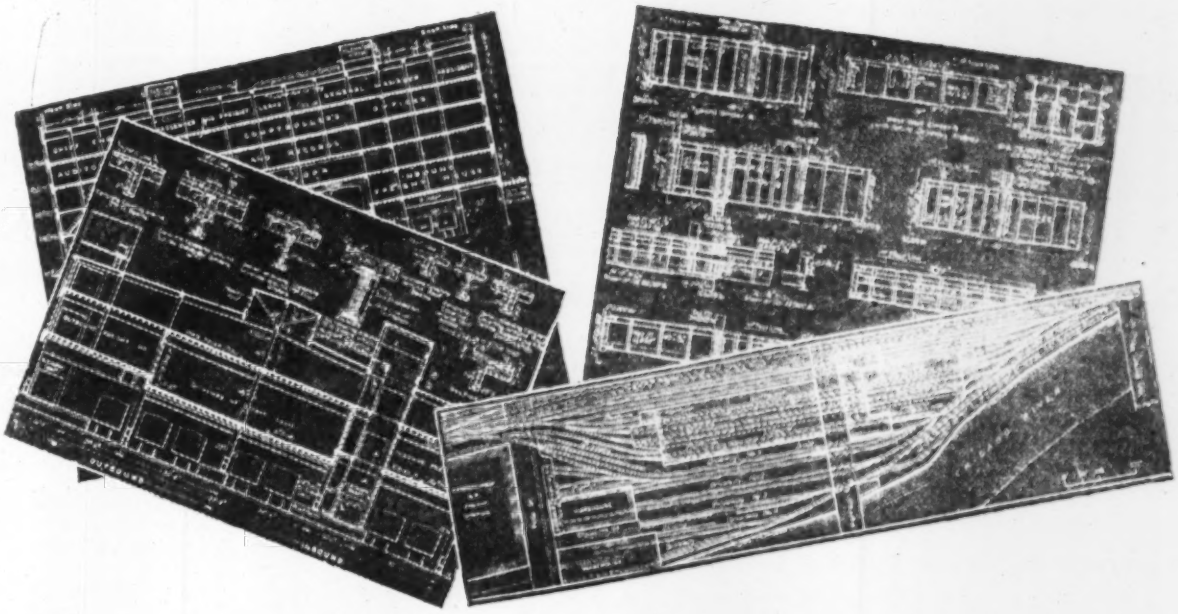

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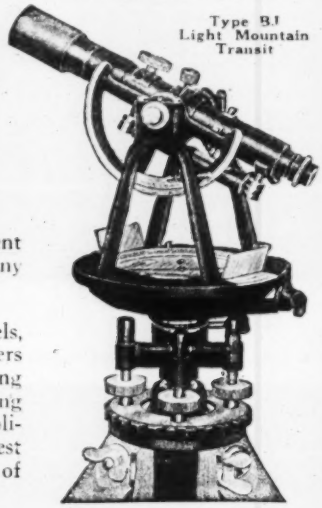

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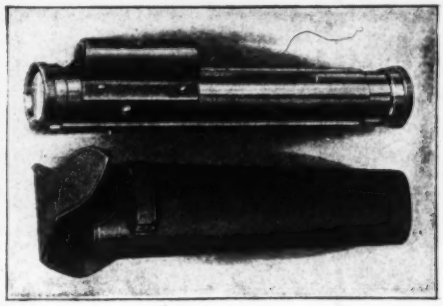

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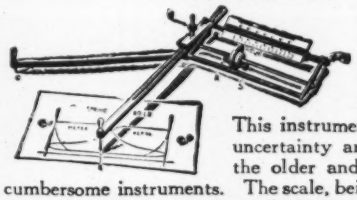

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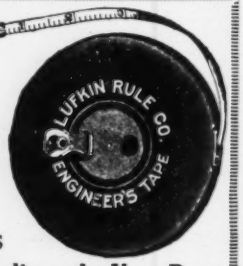

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Traylor Engr. & Mfg. Co
Youngstown Boiler & Tank Co.

Boilers, Upright
Orr & Sembower, Inc.

Bolts, Nails, Nuts, Rivets & Spikes
Lackawanna Steel Co.

Books, Engineering and Technical
American Technical Society
McGraw-Hill Book Co.
Wiley & Sons Co., John

Boxes, Annealing
Blaw-Knox Co.
Petroleum Iron Works Co.

Brakes, Air
Westinghouse Traction Brake Co.

Brick, Fire
Robinson Clay Products Co.

Brick Making & Clay Working Machinery
Lancaster Iron Works, Inc.

Bridges
American Bridge Co.
Berlin Construction Co.
Bethlehem Steel Bridge Corp.
Blaw-Knox Co.
Boston Bridge Works
Champion Bridge Co.
Eastern Bridge & Struc. Co.
Fort Pitt Bridge Works
Foundation Co.
Independent Bridge Co.
Kellogg Structural Steel Co.
Kenwood Bridge Co.
King Bridge Co.
Lackawanna Bridge Co.
Louisville Bridge & Iron Co.
McClintic-Marshall Co.
Milwaukee Bridge Co.
Minneapolis Steel & Machy Co.
Missouri Valley Bridge & Iron Co.
Morava Construction Co.
Mount Vernon Bridge Co.
Parsons Klapp, Brinckerhoff & Douglas
Penn. Bridge Co.
Phoenix Bridge Co.
Pittsburgh-Des Moines Steel Co.
Puget Sound Bridge & Dredging Co.
Raymond Concrete Pile Co.
Riverside Bridge Co.
Shoemaker-Satterthwait Bridge Co.
Strauss Bascule Bridge Co.
Virginia Bridge & Iron Co.
Wisconsin Bridge & Iron Co.

Bridges, Bascule
Strauss Bascule Bridge Co.

Bridge Operating Mchy.
Earle Gear & Machine Co.

Buckets, Automatic Dumping
Penn. Foundry & Mfg. Co.

Buckets, Clam Shell
Advance Engineering Co.
Blaw-Knox Co.
Brown Hoisting Mchy. Co.
Browning Co.
Haiss Mfg. Co., Inc., Geo.
Hayward Co.
Industrial Works
Kiesler Co., Jos. F.
Link-Belt Company
McMyler Interstate Co.
Mead-Morrison Mfg. Co.
Orton & Steinbrenner
Owen Bucket Co.
Vulcan Iron Works of N. J.
Williams Co., G. H.

Buckets, Concrete
Insley Manufacturing Co.
Ransome Concrete Mchy. Co.
Union Iron Works

Buckets, Dragline
Brown Hoisting Mchy. Co.
Hayward Co.
Monighan Machine Co.

Buckets, Dredging and Excavating
Blaw-Knox Co.
Haiss Mfg. Co., Inc., Geo.
Kiesler Co., Jos. F.
Marion Steam Shovel Co.
Mead-Morrison Mfg. Co.
Union Iron Works

Buckets, Electric Motor
Hayward Co.

Buckets Elevator
(See Elevators, Bucket)

Buckets, Orange Peel
Browning Co.
Haiss Mfg. Co., Inc., Geo.
Hayward Co.
Industrial Works
Kiesler Co., Jos. F.
McMyler Interstate Co.
Mead-Morrison Mfg. Co.
Orton & Steinbrenner Co.
Owen Bucket Co.
Vulcan Iron Works of N. J.

Buckets, Trench and Excavating
Osgood Co.

Building Paper
Carey Co., Philip

Buildings, Ramp
Ramp Building's Corp.

Buildings, Steel
Blaw-Knox Co.
Hydraulic Steelcraft Co.
McClintic-Marshall Co.
Milliken Bros. Mfg. Co
Truscon Steel Co.

Bunks and Cots
Fort Pitt Bedding Co.
Southern-Rome Co.

Cableways
Flory Manufacturing Co., S
Lambert Hoisting Engine Co.
Lidgerwood Mfg. Co.
Roebling's Sons Co., J. A.
Waterbury Co.
Wickwire-Spencer Steel Corp.

Cableway Excavators
(See Excavators, Cableway)

Caissons
American Bridge Co.
Foundation Co.
Lackawanna Steel Co.

Cars, Concrete
Ransome Concrete Mchy. Co.

Cars, Industrial V Dump
Easton Car & Constr. Co.
Insley Mfg. Co.
Penn Fdry. & Mfg. Co.
Ramapo Iron Works
Whiting Corporation.

Carts, Air Side Dump
Continental Car Co. of Amer.

Carts, Concrete
Gray Iron Fdry. Co.
Insley Mfg. Co.
Ransome Concr. Mchy. Co.
Sterling Wheelbarrow Co.

Castings, Iron and Steel
American Bridge Co.
Amer. Cast Iron Pipe Co.
Chain Belt Co.
Fox & Co., John
Gray Iron Fdry. Co.
Jeffrey Manufacturing Co.
Link-Belt Co.
Lynchburg Foundry Co.
Marion Malleable Iron Wks.
Marion Steam Shovel Co.
U. S. Cast Iron Pipe & Foundry Co.
Warren Foundry & Mach. Co.

Castings, Street and Sewer
Lynchburg Foundry Co.
U. S. Cast Iron Pipe & Foundry Co.

Cement
Alpha Portland Cement Co.
Lawrence Cement Co.
Pennsylvania Cement Co.
Vulcanite Portland Cement Co.

Cement-Guns
Cement-Gun Co.

Cement Gun Contracting
Traylor-Dewey Contracting Co.

Cement-Making Machinery
Allis-Chalmers Mfg. Co.
Austin Mchy. Corp.
Century Cement Mach. Co.
Gruendler Patent Crusher & Pulverizer Co.
Smidth & Co., F. L.
Traylor Engr. & Mfg. Co.
Vulcan Iron Wks. of Wilkes-Barre
Worthington Pump & Machy Corp.

Centers, Steel, Collapsible
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Chain, Steel and Malleable Sprocket
Chain Belt Co.
Jeffrey Manufacturing Co.
Link-Belt Company
Webster Manufacturing Co.

Channelers
Ingersoll-Rand Co.

Chimneys, Concrete
Acme Chimney Co.
General Concrete Constr. Co.
Heine Chimney Co.
Rust Engineering Co.
Summerhays & Sons Co., Wm.
Weber Chimney Co.
Wiederholdt Construction Co.

Chimneys, Radial Brick
Acme Chimney Co.
American Chimney Corp.
Custodis Chimney Construction Co., Alphons
Heine Chimney Co.
Kellogg Co., M. W.
Rust Engineering Co.
Summerhays & Sons Co., Wm.
Wiederholdt Construction Co.

Chimneys, Steel
Blaw-Knox Co.
Chicago Bridge & Iron Wks.
Petroleum Iron Works Co.

Chloride of Lime
Penn Salt Mfg. Co.

Chlorinators
Wallace & Tiernan Co.

Chlorine, Liquid
Mathieson Alkali Works
Wallace & Tiernan Co.

Chutes, Concrete
Insley Manufacturing Co.
Ransome Concrete Mchy. Co.

Clutches, Friction
Webster Manufacturing Co.

Coal and Ore-Conveying Machinery
Brown Hoisting Machy. Co.
Byers Mach. Co., John F.
Chain Belt Co.
Gifford-Wood Co.
Haiss Mfg. Co., Inc., Geo.
Jeffrey Mfg. Co.
Lidgerwood Mfg. Co.
Link-Belt Company
McMyler Interstate Co.
Mead Morrison Mfg. Co.
Portable Machinery Co.
Webster Manufacturing Co.

Coal-Storage Systems
Green Engineering Co.
Guarantee Construction Co.
Jeffrey Manufacturing Co.
Link-Belt Company

Cofferdams, Steel
Lackawanna Steel Co.

Column Clamps
M & M Form Clamp Co.
Universal Form Clamp Co.

Column Forms
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Compressors, Air, Heavy Duty
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
Ingersoll-Rand Co.
McKiernan-Terry Drill Co.
Sullivan Machinery Co.
Westinghouse Traction Brake Co.
Worthington Pump & Machy Corp.

Compressors, Air, Portable
Cement-Gun Co.
General Electric Co.
Ingersoll-Rand Co.
Schramm & Son., Inc., Chris. D.
Traylor Engr. & Mfg. Co.

Concrete Bond
Living-Stone Co., The

Concrete Floor Hardener
Anti-Hydro Waterproofing Co.
Sonneborn Sons, Inc., L.
Toch Bros.

Concrete Making Machinery
Austin Machy. Corp.
Century Cement Mach. Co.
Pneumatic Concrete Machy. Co.
Ransome Concrete Machy. Co.

Concrete Reinforcement
American Steel & Wire Co.
Brown Hoisting Machy. Co
Carnegie Steel Co.
Concrete Steel Co.
Consolidated Expanded Metal Co.
Electric Welding Co.
Hydraulic Steelcraft Co.
Kalman Co., Inc., P. J.
Lackawanna Steel Co.
Laclede Steel Co.
Mitchel-Tappen Co.
Northwestern Expanded Metal Co.
Truscon Steel Co.
U. S. Gypsum Co.
Wickwire-Spencer Steel Corp

Condensers
Cameron Steam Pump Wks., A. S.
Dean Bros. Steam Pump Works
Ingersoll-Rand Co.
Manistee Iron Wks.
Worthington Pump & Machy. Corp.

Conveyors, Belt
Chain Belt Co.
Gifford-Wood Co.
Haiss Mfg. Co., Inc., Geo.
Jeffrey Manufacturing Co.
Link-Belt Company
Portable Machinery Co
Robins Conveying Belt Co.
Webster Manufacturing Co.

Conveyors, Bucket
Chain Belt Co.
Gifford-Wood Co.
Haiss Mfg. Co., Inc., Geo.
Jeffrey Manufacturing Co.
Link-Belt Company
Mead-Morrison Mfg. Co.
Webster Manufacturing Co.

Cordage, Manila & Sisal
Plymouth Cordage Co.
Whitlock Cordage Co.

Corner Bead Metal
Consolidated Expanded Metal Co.
Truscon Steel Co.

Couplings, Flexible
Dexter Co., I. H.

Cranes, Locomotive
Ball Engine Co.
Brown Hoisting Machy. Co.
Browning Co.
Byers Mach. Co., John F.
Davenport Locomotive Wks.
Industrial Works
Link-Belt Company
Locomotive Crane Co. of America
McMyler Interstate Co.
Marion Steam Shovel Co.
Ohio Locomotive Crane Co.
Orton & Steinbrenner Co.
Osgood Co.
Terry Mfg. Co

Cranes, Traveling
Brown Hoisting Machy. Co.
Link-Belt Company
Pawling & Harnischfeger Co.
Whiting Corporation.

Cranes, Wrecking
Browning Co.
Bucyrus Co.
Industrial Works

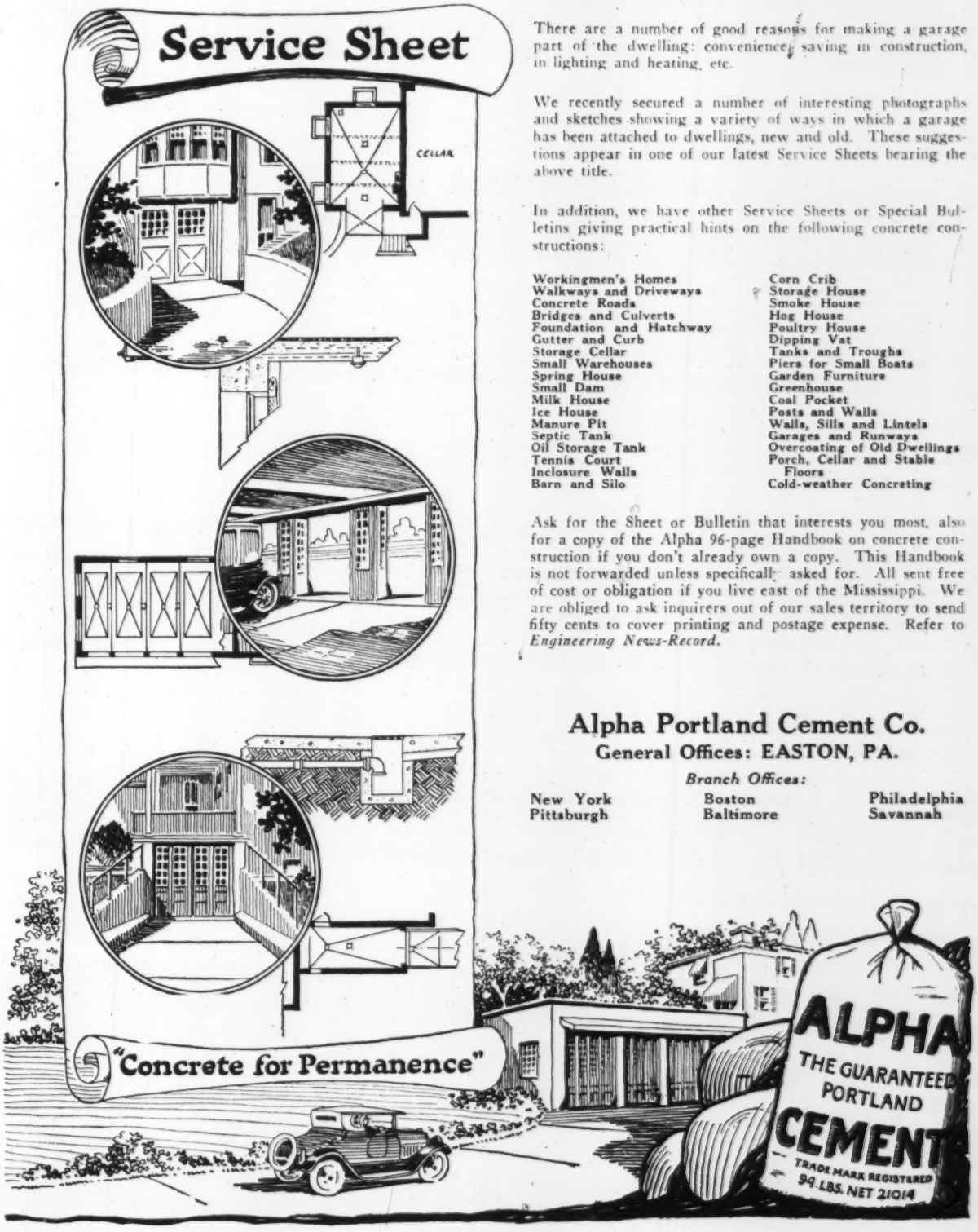
Creosoted Blocks, Timber, etc.
American Creosoting Co.
Jennison-Wright Co.
Olne Wood Preserving Co.
Republic Creosoting Co.
S. P. F. Wood Preserving Co.

Creosoting
American Creosote Works
Barret Co.
Jennison-Wright & Co.
Republic Creosoting Co.
Wyckoff Pipe & Creosoting Co.

Creosoting Oils
Barrett Co.
Northeastern Co.
Protexol Corp.
Republic Creosoting Co.

Crushers and Pulverizers
Allis-Chalmers Mfg. Co.
Chalmers & Williams, Inc

Concrete Garages Built With House



There are a number of good reasons for making a garage part of the dwelling: convenience, saving in construction, in lighting and heating, etc.

We recently secured a number of interesting photographs and sketches showing a variety of ways in which a garage has been attached to dwellings, new and old. These suggestions appear in one of our latest Service Sheets bearing the above title.

In addition, we have other Service Sheets or Special Bulletins giving practical hints on the following concrete constructions:

Workingmen's Homes	Corn Crib
Walkways and Driveways	Storage House
Concrete Roads	Smoke House
Bridges and Culverts	Hog House
Foundation and Hatchway	Poultry House
Gutter and Curb	Dipping Vat
Storage Cellar	Tanks and Troughs
Small Warehouses	Piers for Small Boats
Spring House	Garden Furniture
Small Dam	Greenhouse
Milk House	Coal Pocket
Ice House	Posts and Walls
Manure Pit	Walls, Sills and Lintels
Septic Tank	Garages and Runways
Oil Storage Tank	Overcoating of Old Dwellings
Tennis Court	Porch, Cellar and Stable Floors
Inclosure Walls	Cold-weather Concreting
Barn and Silo	

Ask for the Sheet or Bulletin that interests you most, also for a copy of the Alpha 96-page Handbook on concrete construction if you don't already own a copy. This Handbook is not forwarded unless specifically asked for. All sent free of cost or obligation if you live east of the Mississippi. We are obliged to ask inquirers out of our sales territory to send fifty cents to cover printing and postage expense. Refer to *Engineering News-Record.*

Alpha Portland Cement Co.
General Offices: EASTON, PA.

Branch Offices:

New York	Boston	Philadelphia
Pittsburgh	Baltimore	Savannah

Grundler Patent Crusher & Pulverizer Co.
Jeffrey Manufacturing Co.
Orton & Steinbrenner Co.
Raymond Bros. Impact Pulverizer Co.
Smidth & Co., F. L.
Traylor Engr. & Mfg. Co.
Worthington Pump & Machy. Corp.

Culverts, Corrugated
Canton Culvert & Silo Co.
Newport Culvert Co.

Culverts, Metal
Amer. Sheet & Tin Plate Co.
Newport Culvert Co., Inc.
U. S. Cast Iron Pipe & Foundry Co.

Culverts, Nestable & Riveted Corrugated
Canton Culvert & Silo Co.
Newport Culvert Co.

Curbs, Steel Protected
Electric Welding Co.
Truscon Steel Co.

Cutting Blowpipes, Oxy-Acetylene
Milburn Co., Alex.

Dams
Foundation Co.
Puget Sound Bridge & Dredging Co.

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Dobbie Fdry. & Machine Co.
Hayward Co.
Insley Manufacturing Co.
Lambert Hoisting Engine Co.
Lidgerwood Mfg. Co.
McMyler Interstate Co.
Terry Mfg. Co.

Disinfecting Chemicals
Mathieson Alkali Works
Wallace & Tiernan Co.

Distributors, Pressure Oil
(See Road Oilers, Pressure)

Ditching Machinery
(See Excavators.)

Docks and Harbor Work
Parsons, Klapp, Brinckerhoff & Douglas
Snare & Triest Co.

Doors & Shutters, Steel Rolling
Bogert & Carlough Co.
Detroit Steel Products Co.

Drafting Machines
Universal Drafting Mach. Co.

Drafting Room Furniture
Dietzgen Co., Eugene
Economy Drawing Table & Manufacturing Co.
Hamilton Manufacturing Co.

Drawing Materials
Defiance Mfg. Co.
Dietzgen Co., Eugene
Hamilton Manufacturing Co.
Keuffel & Esser Co.
Kolesch & Co.
National Tracing Cloth Co.

Drawing Tables
(See Tables and Boards, Drawing.)

Dredges
Hayward Co.
Lambert Hoisting Engine Co.
Lidgerwood Mfg. Co.
Marion Steam Shovel Co.
Osgood Co.
Vulcan Iron Wks. of N. J.

Dredges, Dipper
Austin Machy. Corp.
Bay City Dredge Works
Bucyrus Co.
Osgood Co.

Dredges, Hydraulic
Atlantic Gulf & Pacific Co.
Bucyrus Co.
Ellicott Machine Corporation
Marion Steam Shovel Co.
Morris Machine Works

Drills, Air
Ingersoll-Rand Co.

Drills, Core
Ingersoll-Rand Co.
Keystone Driller Co.
McKiernan-Terry Drill Co.
Sullivan Machinery Co.

Drills, Hammer
Ingersoll-Rand Co.
McKiernan-Terry Drill Co.
Sullivan Machinery Co.

Drills, Rock
General Electric Co.
Ingersoll-Rand Co.
Jeffrey Manufacturing Co.
McKiernan-Terry Drill Co.
Schramm & Son., Inc., Chris. D.
Sullivan Machinery Co.

Drums, Holding
Blaw-Knox Co.
Haiss Mfg. Co., Inc., Geo.
Hayward Co.
Monighan Machine Co.

Dryers
Worthington Pump & Machy. Corp.

Ejectors, Sewage
Pacific Flush Tank Co.

Elevator, Buckets
Chain Belt Co.
Gifford-Wood Co.
Haiss Mfg. Co., Inc., Geo.
Hendrick Mfg. Co.
Jeffrey Manufacturing Co.
Link-Belt Company
Ohio Locomotive Crane Co.
Webster Manufacturing Co.

Elevators; Contractors' Material
Byers Mach. Co., John F.
Haiss Mfg. Co., Inc., Geo.
Insley Manufacturing Co.
Ransome Concrete Mchy. Co.

Elevators, Factory
Ridgway & Son Co., Craig

Engineers and Contractors
Atlantic Gulf & Pacific Co.
Donnell-Zane Co.
General Machy. Foundations Co.
Guarantee Construction Co.
Parsons, Klapp, Brinckerhoff & Douglas
Puget Sound Bridge & Dredging Co.
Raymond Concrete Pile Co.
Smith, Hauser & McIsaac
Spencer, White & Prentis
Stone & Webster
Terry & Tench Co., Inc.
(See also Directory of Engineers.)

Engineers' and Draftsmen's Instruments and Supplies
Defiance Mfg. Co.
Dietzgen Co., Eugene
Gurley, W. & L. E.
Hamilton Manufacturing Co.
Keuffel & Esser Co.
Kolesch & Co.
Leupold-Voelpel Co.
Lufkin Rule Co.
National Tracing Cloth Co.

Engines, Gas, Gasoline & Oil
Allis-Chalmers Mfg. Co.
Ellicott Machinery Corp.
Fairbanks-Morse & Co. of Chicago
Ingersoll-Rand Co.
Worthington Pump & Machy. Corp.

Engines, High Duty Water-Works
Morris Machine Works
Worthington Pump & Machy. Corp.

Engines, Hoisting
(See Hoists)

Engines, Portable
Leffel & Co., James
Worthington Pump & Machy. Corp.

Engines, Steam
Lawrence Machine Co.

Excavating Machinery
Byers Mach. Co., John F.

Excavators, Cableway
Lambert Hoisting Engine Co.
Lidgerwood Mfg. Co.
Sauerman Bros.

Excavators, Ditch & Trench
Austin Mchy. Corp.
Buckeye Traction Ditcher Co.
Bucyrus Co.
Byers Mach. Co., John F.
Fritz & Co., Inc., W. G.
Keystone Driller Co.
Marion Steam Shovel Co.
Osgood Co.
Pawling & Harnischfeger Co.

Excavators, Dragline
Austin Mchy. Corp.
Bucyrus Co.
Byers Mach. Co., John F.
Hayward Co.
Lambert Hoisting Engine Co.
Marion Steam Shovel Co.
Monighan Machine Co.
Osgood Co.
Pawling & Harnischfeger Co.
Sauerman Bros.

Expanded Metal
Consolidated Expanded Metal Co.
Northwestern Expanded Metal Co.
Truscon Steel Co.

Filters, Water, Municipal and Industrial
American Water Softener Co.
International Filter Co.
N. Y. Continental Jewell Filtration Co.
Norwood Engineering Co.
Permutit Co.
Pittsburgh Filter Mfg. Co.
Roberts Filter Mfg. Co.
Scaife & Sons Co., Wm. B.
Simplex Valve & Meter Co.

Fire Clay
Delaware Clay Products Co.
Robinson Clay Products Co.

Fireproof Material and Construction
Detroit Steel Products Co.
Keasbey & Mattison Co.

Floor Hardener, Concrete
(See Concrete Floor Hardener.)

Floor, Wood Block
Barrett Co.
Jennison-Wright Co.
Republic Creosoting Co.

Flumes, Iron & Steel
Hardesty Mfg. Co., R.
Petroleum Iron Wks.

Forgings
Carnegie Steel Co.

Form Clamps
Insley Mfg. Co.
M. & M. Form Clamp Co.
Universal Form Clamp Co.

Form Tighteners
Marion Malleable Iron Works

Forms, Culvert, Road, Sewer, Tunnel, etc.
Blaw-Knox Co.
Foote Concrete Machy. Co.
Hydraulic Steelcraft Co.

Forms for Curbs and Gutters
Blaw-Knox Co.

Forms for Walls, Building Construction, etc.
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Foundations
American Bridge Co.
Foundation Co.
General Machinery Foundations Co.
Lackawanna Steel Co.
MacArthur Concrete Pile & Foundation Co.
Raymond Concrete Pile Co.
Smith, Hauser & MacIsaac
Spencer, White & Prentis
Underpinning & Foundation Co.

Foundry Equipment
Whiting Corporation.

Frogs and Switches, Railway
Ramapo Iron Works

Furnaces, Annealing & Tempering
American Gas Furnace Co.

Furnaces, Gas
American Gas Furnace Co.

Garage Designs
Ramp Buildings Corp.

Garbage Disposal Apparatus
Jeffrey Mfg. Co., The

Gates, Head
Hardesty Mfg. Co.

Gates, Sluice
Coffin Valve Co.
Coldwell-Wilcox Co.
Crane Co.
Hardesty Mfg. Co.
Ludlow Valve Mfg. Co.

Gates, Water
Hardesty Mfg. Co.

Gauges, Loss of Head
Simplex Valve & Meter Co.

Gauges, Rate of Flow
Simplex Valve & Meter Co.

Gears
Earl Gear & Mach. Co.

Generators, Electric
Allis Chalmers Mfg. Co.
Fairbanks-Morse & Co. of Chicago
General Electric Co.

Glass Construction
Detroit Steel Products Co.
Penn Wire Glass Co.

Glass, Fireproof
(See Wire Glass)

Governors, Waterwheel
Woodward Governor Co.

Grates, Chain
Green Engineering Co.

Gravel Washing Plants
Link-Belt Company
Sauerman Bros.

Gypsum
U. S. Gypsum Co.

Hammers, Pneumatic
Ingersoll-Rand Co.

Hammers, Steam Pile
(See Pile Hammers, Steam)

Hoists, Concrete Tower
Insley Manufacturing Co.
Lakewood Engrg. Co.
Lambert Hoisting Eng. Co.
Ransome Concrete Mchy. Co.

Hoists, Contractors' Electric
Allis-Chalmers Mfg. Co.
Byers Mach. Co., John F.
Dobbie Foundry & Mach. Co.
Flory Mfg. Co., S.
Ingersoll-Rand Co.
Lambert Hoisting Eng. Co.
Lidgerwood Mfg. Co.
Mead Morrison Mfg. Co.
Minn. Steel & Machy. Co.
Monighan Machine Co.
Mundy Hoisting Eng. Co., J. S.
O. K. Clutch & Mchy. Co.
Orr & Sembower, Inc.
Stroudsburg Engine Works

Hoists, Contractors', Gasoline
Gray Iron Fdry. Co.
Lambert Hoisting Eng. Co.
Lidgerwood Mfg. Co.
Mundy Hoisting Eng. Co., J. S.
O. K. Clutch & Mchy. Co.
Schramm & Son, Inc., Chris. D.
Stroudsburg Engine Works

Hoists, Contractors', Steam
Allis-Chalmers Mfg. Co.
Byers Mach. Co., John F.
Flory Manufacturing Co., S.
Ingersoll-Rand Co.
Lambert Hoisting Eng. Co.
Lansing Co.
Lidgerwood Mfg. Co.
Mead-Morrison Mfg. Co.
Mundy Hoisting Eng Co., J. S.
Orr & Sembower, Inc.
Stroudsburg Engine Works
Vulcan Iron Wks. of Wilkes-Barre, Pa.

Hoists, Pneumatic
Ingersoll-Rand Co.
Stroudsburg Engine Works
Whiting Corporation

Hoppers, Concrete
Insley Manufacturing Co.
Ransome Concrete Machy. Co.

Hydrants
Ludlow Valve Mfg. Co.
Norwood Engineering Co.
Rensselaer Valve Co.
Smith Mfg. Co., A. P.
Wood & Co., R. D.

Incinerators
Power Specialty Co.

Inserts, Concrete
Security Insert Co.
Truscon Steel Co.

Inspecting Laboratories
(See Directory of Engineers)

Instruments, Drawing
Keuffel & Esser Co.

Instruments, Surveying
Ainsworth & Sons, Wm.
Berger & Sons, C. L.
Buff & Buff Mfg. Co.
Gurley, W. & L. E.
Keuffel & Esser Co.
Kolesch & Co.

Iron Work, Structural and Ornamental
Christopher & Simpson Iron Works
Hendrick Mfg. Co.
Ryerson & Son Co., Jos.
Snead Architectural Iron Works

Jacks, Lifting
McKiernan-Terry Drill Co.
Norton, Inc., A. O.

Joints, Expansion Paving
Barrett Co.
Carey Co., Philip
Truscon Steel Co.

Joints, Filler Paving
Barrett Co.

Joints, Flexible Pipe
Crane Co.
U. S. Cast Iron Pipe & Foundry Co.

Kilns, Lime
Petroleum Iron Works Co.

Lamps Arc & Incandescent
General Electric Co.

Lamps, Flood
General Electric

Lath, Expanded Metal
Consolidated Expanded Metal Co.
Hydraulic Steelcraft Co
Mitchell-Tappen Co.
Northwestern Expanded Metal Co.

Leadite
Leadite Co., Inc., The

Lights, Contractors'
Milburn Co., Alex.

Loaders, Wagon
(See Wagon Loaders)

Locomotives, Compressed Air
Vulcan Iron Wks. of Wilkes-Barre, Pa.

Locomotives, Electric
General Electric Co.
Jeffrey Mfg. Co., The

Locomotives, Gasoline
Burton Engr. & Machy. Co.
Fate-Root-Heath Co.
Hadfield Penfield Steel Co.
Vulcan Iron Wks. of Wilkes-Barre, Pa.
Whitcomb Co., Geo. D.

Locomotives, Steam
Davenport Locomotive Wks.
Vulcan Iron Wks. of Wilkes-Barre, Pa.

Locomotives, Storage Battery
General Electric Co.
Whitcomb Co., Geo. D.

Loose Leaf Data
Lefax Co.

Lubricants
Greene, Tweed & Co.

Lumber
Weyerhaeuser Forest Products

Manila Drilling Cables
Plymouth Cordage Co.
Whitlock Cordage Co.

Manometers
Simplex Valve & Meter Co.

Meter Boxes
Pittsburgh Meter Co.

Meter Provers
Hersey Mfg. Co.
Pittsburgh Meter Co.

Meters, Boiler Feed Water
Builders' Iron Foundry Co.

Meters, Current
Gurley, W. & L. E.

Meters, Gas and Steam
Builders' Iron Foundry Co.
General Electric Co.
Wallace & Tiernan Co.

Meters, Venturi
Builders' Iron Foundry Co.

Meters, Water, Oil, etc.
Builders' Iron Foundry Co.
Gamon Meter Co.
General Electric Co.
Hersey Mfg. Co.
Neptune Meter Co.
Pittsburgh Meter Co.
Simplex Valve & Meter Co.
Thompson Meter Co.
Worthington Pump & Machy. Corp.

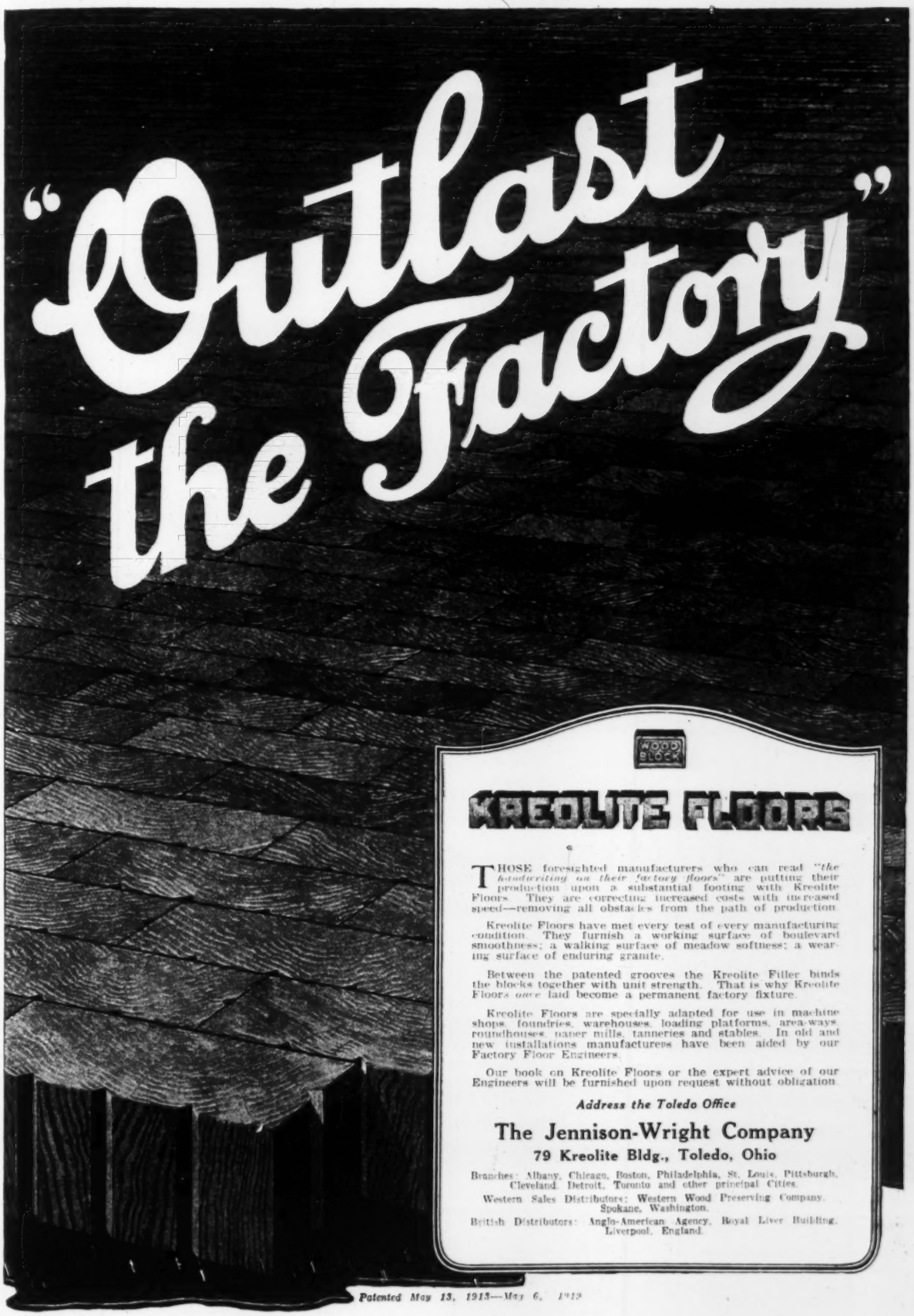
Mixers, Asphalt
(See Mixers, Hot)

Mixers, Concrete
Austin Mchy. Corp.
Blaw-Knox Co.
Cement-Gun Co.
Chain Belt Co.
Foote Concrete Machy. Co.
Gray Iron Foundry Co.
Jaeger Machine Co.
Lansing Co.
Ransome Concrete Mchy. Co.
Schramm and Son, Inc., Chris. D.
Traylor Engr. & Mfg. Co.
Worthington Pump & Mchy. Corp.

Mixers, Grout
Austin Mchy. Corp.
Ransome Concrete Mchy. Co.
Union Iron Works

Mixers, Hot
Austin Mchy. Corp

"Outlast the Factory"



WOOD BLOCK

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THOSE foresighted manufacturers who can read *"the handwriting on their factory floors"* are putting their production upon a substantial footing with Kreolite Floors. They are correcting increased costs with increased speed—removing all obstacles from the path of production.

Kreolite Floors have met every test of every manufacturing condition. They furnish a working surface of boulevard smoothness; a walking surface of meadow softness; a wearing surface of enduring granite.

Between the patented grooves the Kreolite Filler binds the blocks together with unit strength. That is why Kreolite Floors *once* laid become a permanent factory fixture.

Kreolite Floors are specially adapted for use in machine shops, foundries, warehouses, loading platforms, area-ways, roundhouses, paper mills, tanneries and stables. In old and new installations manufacturers have been aided by our Factory Floor Engineers.

Our book on Kreolite Floors or the expert advice of our Engineers will be furnished upon request without obligation.

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The Jennison-Wright Company

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Branches: Albany, Chicago, Boston, Philadelphia, St. Louis, Pittsburgh, Cleveland, Detroit, Toronto and other principal Cities.

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British Distributors: Anglo-American Agency, Royal Liver Building, Liverpool, England.

Patented May 13, 1913—May 6, 1919

Mixers, Mortar
Austin Mchy. Corp
Jaeger Machine Co.
Lansing Co.
Ransome Concrete Mchy. Co.

Mixers, Paving
Austin Mchy. Corp.
Chain Belt Co.
Foote Concrete Machy. Co.
Ransome Concrete Machy. Co.

Mixers, Pneumatic
Pneumatic Concrete Machy. Co.
Ransome Concrete Mchy. Co.

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Fairbanks-Morse & Co. of Chicago
General Electric Co.
Westinghouse Traction Brake Co.

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(See Trucks, Motor)

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Air Reduction Sales Co.

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Greene, Tweed & Co.
Jenkins Bros.

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Carey Co., Philip
Eagle Picher Lead Co.
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Protexol Corp.
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Detroit Steel Products Co.
Porete Mfg. Co.
U. S. Gypsum Co.

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Willite Road Const. Co. of America

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Lackawanna Steel Co.

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McMyler Interstate Co.
Union Iron Works
Vulcan Iron Works of Chicago

Pile Hammers, Steam
McKiernan-Terry Drill Co.
Union Iron Works

Pile Shoes
Janney-Steinmetz Co.

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MacArthur Concrete Pile Foundation Co.
Raymond Concrete Pile Co.

Piles, Creosoted Wood
Jennison-Wright Co.

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Foundation Co.
Lackawanna Steel Co.

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Westinghouse Traction Brake Co.

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Leadite Co., Inc. The

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American Spiral Pipe Wks.

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East Jersey Pipe Co.

Pipe, Lock Joint
Lock Joint Pipe Co.

Pipe, Reinforced Concrete
Lock Joint Pipe Co.

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East Jersey Pipe Co.
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Machold & Riddell
Petroleum Iron Works Co.
Tippett & Wood
Walsh's Holyoke Steam Boiler Works

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Abendroth & Root Mfg. Co.
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Blaw-Knox Co.

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Taber Pump Co.
Worthington Pump & Machy. Corp.

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Waldo Bros. & Bond Co.

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Cook, A. D.
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Boston & Lockport Block Co.
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Manistee Iron Works
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Pumps, Power
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Cook, A. D.
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Lea-Courtenay Co.
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Tippett & Wood
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(See Steel Plate Construction)

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American Wood Pipe Co.
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Redwood Manufacturers

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Lufkin Rule Co.

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Barrett Co.

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(See also Engineers' Directory)

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Jennison-Wright & Co

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U. S. Gypsum Co.

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Federal Cement Tile Co

Why technical men hold themselves back

"A great many engineers are unconsciously holding themselves in check because they fail to grasp business principles."

—John A. Harrington, of the Executive Committee, American Association of Engineers.

WHAT Mr. Harrington and other engineering authorities are saying about the importance of business training for technical men, the Alexander Hamilton Institute began emphasizing years ago.

The Institute was founded by a group or business leaders who recognized that modern business was training specialists but was not developing executives in proportion to the constantly increasing demand.

From the first it has been an axiom with the officers of the Institute that "a technical man is the ideal Institute man"; and that axiom has proved itself in the fact that out of the army of men whom the Institute has enrolled one in ten is a man of technical training or interest.

The men of whom presidents and general managers are made

Just what is it that the Institute has done for these thousands of engineers and technical men. Let us illustrate very specifically:

You are an engineer, a chemist, a draughtsman, a master-mechanic—in a word, a man who has reached his present position in business thru specialized training of one sort or another.

You can see your way clearly to a place at the head of your department; but beyond that what does business have in store for you?

Do you know the fundamentals of accounting? Of merchandising and advertising; of factory and office organization; of business law and corporation finance?

These fundamentals a man *must* know if he is to direct an organization, or engage in business for himself.

And it is precisely these essentials that the Institute—thru its Modern Business Course and Service—undertakes to give—not in years, but in the spare moments of a few months.

No man could run thru the letters

contained in the Institute's files without feeling that here is an opportunity which every man of technical training ought to investigate, at least.

Here is a sentence from the chief engineer of a great port city, for example: "*I know of nothing that could tend more towards the advancement of an engineer on any line of work than a thoro study of Modern Business.*"

And another from a resident engineer, of a giant engineering company: "*The engineering profession is broadening, and men trained as engineers are more and more being used in business where their technical education gives them an excellent groundwork.*"

"*Your training enabled me to effect economies in my work which I had not dreamed of before,*" says a prominent electrical engineer. And other men, in every phase of technical work, are on record with equal positiveness and enthusiasm.

To save the wasted years

The Alexander Hamilton Institute has only one Course and one product—trained executives. It does not claim to be able to transform failures into successes; its interest is with the man who would ultimately score a fair measure of success even without its help.

To such a man it says: "There is a shorter road to one of the important positions in business than merely routine experience; thousands of men have proved that truth thru their own experience and success.

"You know better than anyone else what a year of your life is worth. But if the Alexander Hamilton Institute can save five years for you that would otherwise be lost in a routine job, or three years or even one, surely that promise is worth your investigation."

Investigation is easy; you have merely to send for

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Forging Ahead in Business is a book of 116 pages. Into it have gone the results of years' experience in helping men to success. It answers every question you can raise about the Alexander Hamilton Institute; it contains letters from men whose positions in business were very similar to yours. It is a book that should be in every man's library, and there is a copy for every man of serious purpose. It is sent without obligation; send for your copy today.

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31 Astor Place New York City

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Business Address.....

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Business Position.....

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(See Hoists, Conc. Tower)

Towers, Radio
Blaw-Knox Co.
Milliken Bros. Mfg. Co.
Riter-Conley Co.

Towers, Transmission
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Milliken Bros. Mfg. Co.
Riter-Conley Mfg. Co.

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Leffel & Co., Jas.
Pelton Water Wheel Co.
Smith Co., S. Morgan

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Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
General Electric Co.

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Allis-Chalmers Mfg. Co.
General Electric Co.

Turntables
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Foundation Co.
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Underpinning & Foundation Co.

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Rensselaer Valve Co.
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Westinghouse Traction Brake Co.

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Golden-Anderson Valve Specialty Co.
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Coffin Valve Co.
Golden-Anderson Valve Specialty Co.
Jenkins Bros.
Ludlow Valve Mfg. Co.
Simplex Valve & Meter Co.
Westinghouse Traction Brake Co.

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Ludlow Valve Mfg. Co.
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Golden-Anderson Valve Specialty Co.
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Valves Return
Golden-Anderson Valve Specialty Co.

Valves, Safety
Golden-Anderson Valve Specialty Co.
Ludlow Valve Mfg. Co.
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Greene, Tweed & Co.
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If you are using any equipment in your work which you do not find listed in this Buyer's Guide, we would appreciate your writing us about it.

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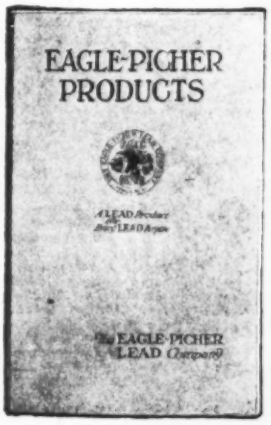

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These qualities are desirable not only for the painting of structural metals but for concrete mixers, conveyors, cranes, derricks, machinery and all equipment, wood and metal, used in the engineering and construction field.

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In both small and large buildings, standard types of Fenestra Steel Sash should be used wherever possible. Standard types can be delivered sooner, and cost less, than special sizes.

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Du Pont Engineering Co., Contractors and Architects

Gilbert & Barker Mfg. Co., Springfield, Massachusetts
McClintock & Craig, Architects
Tucker & Lewis, Contractors

Studebaker Corp., South Bend, Ind.
James Stewart & Co., Inc., Contractors

The California & Hawaiian Sugar Refining Co., San Francisco, Cal.
A. A. Brown, Engineer

The Goodyear Tire & Rubber Co., Los Angeles, Cal.
The Hunkin-Conkey Construction Co. Contractors

The American Chicle Co., Long Island, New York
Ballinger & Perrot, Architects
The Turner Construction Co., Contractors

The Hart, Schaffner & Marx Co., Chicago
The Walter Company, Architects and Contractors

Detroit Steel Products Company
2055 East Grand Boulevard, Detroit, Mich.
Canadian Metal Window & Steel Products Limited, Toronto, Canada

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Sheffield Road, Winchester, Mass., a macadam road kept in perfect condition by an occasional treatment with "Tarvia-B."

Tarvia Roads cost *less* than untreated roads—

"OUR uniformly clean streets are the pride of the town and *Tarvia is responsible for this condition.*"

So writes Mr. T. Parker Clarke, Superintendent of Highways, Winchester, (Mass.), who has been using Tarvia extensively ever since 1908, both for gravel and waterbound macadam roads and streets.

The saving in maintenance has been so considerable since the use of Tarvia that instead of spending all his appropriation on the streets in the central part of the town, he is able to take care also of *many outlying districts which formerly were entirely neglected.*

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Tarvia is a coal-tar preparation, low in cost and easily applied, which renders your roads dustless, mudless, frost-proof and automobile-proof. Tarviated roads are the one economical solution of the problem of high-grade low-cost roads for cities, towns and country districts.

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This company has a corps of trained engineers and chemists who have given years of study to modern road problems. The advice of these men may be had for the asking by any one interested. If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will be given prompt attention.

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